



भारतीय प्रौद्योगिकी संस्थान मद्रास चेन्नै 600 036  
**INDIAN INSTITUTE OF TECHNOLOGY MADRAS Chennai 600 036**  
भंडार एवं क्रय अनुभाग  
**STORES & PURCHASE SECTION**  
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**GST IN : 33AAAAI3615G1Z6**



**G. Chitrapavai**  
**Deputy Registrar (Stores & Purchase)**

**Dated 11.11.2019**

**Tender No. IITM/SPS/COMPUTER RC/011/2019-20**

**Due date: 02.12.2019**  
**Before 2 p.m.**

Dear Sirs,

On behalf of the Indian Institute of Technology Madras, Tenders are invited for

**Purchase of Computers and other computer related items through rate contract  
from the Original Equipment Manufacturers (OEM) for a period of one year**

confirming to the specifications enclosed.

Tender Documents may be downloaded from Central Public Procurement Portal <https://etenders.gov.in/eprocure/app>. Aspiring Bidders who have not enrolled / registered in e-procurement should enroll/register before participating through the website <https://etenders.gov.in/eprocure/app>. The portal enrolment is free of cost. Bidders are advised to go through instructions provided at "Help for contractors". [Special instructions to the bidders for the e-submission of the bids online through this e-Procurement Portal].

Tenderers can access tender documents on the website (For searching in the NIC site, kindly go to Tender Search option and type 'IIT'. Thereafter, Click on "GO" button to view all IIT Madras tenders). Select the appropriate tender and fill them with all relevant information and submit the completed tender document online on the website <https://etenders.gov.in/eprocure/app> as per the schedule attached.

No manual bids will be accepted. All quotation both Technical bid and Financial bid should be submitted in the E-procurement portal.

1	<b>LAST DATE for receipt of Tender</b>	<b>:</b>	<b>02.12.2019 (Monday) before 02.00 p.m.</b>
	<b>Date, Time and Venue of opening of Tender</b>	<b>:</b>	<b>03.12.2019 (Tuesday) at 04.00 p.m., Conference Room, 2<sup>nd</sup> floor, Administration Building</b>
	<b>Pre bid meeting :</b>	<b>:</b>	<b>18.11.2019 (Monday) at 11.00 a.m.</b>  <b>Venue : Conference Room, 2<sup>nd</sup> floor, Admin Building</b>  <b>If you need more clarification on this tender documents or specifications of the equipment, you are invited to attend the pre-bid meeting to get the clarification</b>

A	Submission of Tender	<p>As per the directives of Department of Expenditure, this tender document has been published on the Central Public Procurement Portal URL: <a href="https://etenders.gov.in/eprocure/app">https://etenders.gov.in/eprocure/app</a></p> <p>The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.</p> <p>More information useful for submitting online bids on the CPP Portal may be obtained at: <a href="https://etenders.gov.in/eprocure/app">https://etenders.gov.in/eprocure/app</a></p> <p>Both Technical Bid &amp; Price Bid should be submitted separately in online CPP portal as per the specified format only. Right is reserved to ignore any tender which fails to comply with the above instructions.</p> <p><b>No manual bid submission is entertained.</b></p>
B	Instructions for online bid submission	<p><b>REGISTRATION</b></p> <ol style="list-style-type: none"> <li>i. Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal <a href="https://etenders.gov.in/eprocure/app">URL:https://etenders.gov.in/eprocure/app</a> by clicking on “Online Bidder Enrollment”. Enrolment on the CPP Portal is free of charge.</li> <li>ii. As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.</li> <li>iii. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.</li> <li>iv. Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / TCS / nCode / eMudhra etc.)</li> <li>v. <a href="https://etenders.gov.in/eprocure/app?component=%24DirectLink&amp;page=DSCInfo&amp;service=direct&amp;session=T">https://etenders.gov.in/eprocure/app?component=%24DirectLink&amp;page=DSCInfo&amp;service=direct&amp;session=T</a> with their profile.</li> <li>vi. Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse.</li> <li>vii. Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / eToken.</li> </ol>
<b>Guidelines, Terms and Conditions of Tender</b>		
C	Searching for tender documents	<ol style="list-style-type: none"> <li>i. There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, organization name, location, date, value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organization name, form of contract, location, date, other keywords etc. to search for a tender published on the CPP Portal.</li> <li>ii. Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective “<b>My Tender</b>” folder. This would enable the CPP Portal to intimate the bidders through SMS / email in case there is any corrigendum issued to the tender document.</li> </ol>

			<ul style="list-style-type: none"> <li>iii. The bidder should make a note of the <b>unique Tender ID</b> assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.</li> </ul>
<b>D</b>	<b>Preparation of bids</b>	:	<ul style="list-style-type: none"> <li>i. Bidder should take into account any corrigendum/addendum published on the tender document before submitting their bids.</li> <li>ii. Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.</li> <li>iii. Bidder, in advance, should prepare the bid documents to be submitted as indicated in the tender document / schedule and <b>convert the word document in to PDF and then upload the document.</b></li> <li>iv. To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, GSTIN Details, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use <b>“My Documents”</b> area available to them to upload such documents. These documents may be directly submitted from the “My Documents” area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.</li> <li>v. <b>All the technical related documents need to be uploaded in Technical bids for evaluation purpose.</b></li> </ul>
<b>E</b>	<b>Submission of bids</b>	:	<ul style="list-style-type: none"> <li>i. Bidder should log into the site well in advance for bid submission so that he/she upload the bid in time i.e. on or before the bid submission date and time. Bidder will be responsible for any delay due to other issues.</li> <li>ii. The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.</li> <li>iii. Bidder has to transfer the EMD as applicable by online mode only. The EMD should be transferred on or before the closure date and time of the tender. If the EMD is not transferred before the closure date and time, the tender will be summarily rejected. <b>TheEMD transferred to IIT Madras (as per IIT Madras Account details given in Clause I (i)and the proof of transfer has to be submittedinthe technical bid.</b>Otherwise, the tender will be summarily rejected.</li> <li>iv. A standard BOQ format has been provided with the tender document to be filled by all bidders. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. Bidders are required to download the BOQ file, open it and complete the detail with their respective financial quotes and other details (such as name of the bidder).If the BOQ file is found to be modified by the bidder, the bid will be rejected.</li> <li>v. The server time (which is displayed on the bidders’ dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.</li> </ul>

			<ul style="list-style-type: none"> <li>vi. The <b>Tender Inviting Authority (TIA)</b> will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the bidders due to local issues.</li> <li>vii. The uploaded tender documents become readable only after the tender opening by the authorized bid openers.</li> <li>viii. Upon the successful and timely submission of bids, the portal will give a successful bid submission message &amp; a bid summary will be displayed with the bid no. and the date &amp; time of submission of the bid with all other relevant details.</li> <li>ix. <b>Kindly upload the PDF file of all relevant documents in a single PDF file of compliance sheet.</b></li> </ul>
<b>F</b>	<b>Assistance to bidders</b>	:	<ul style="list-style-type: none"> <li>i. Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.</li> <li>ii. Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk. The contact number for the helpdesk is [0120-4200462, 0120-4001002, 0120-4001005]</li> </ul>
<b>G</b>	<b>General Instructions to the Bidders</b>	:	<ul style="list-style-type: none"> <li>i. The tenders will be received online through portal <a href="https://etenders.gov.in/eprocure/app">https://etenders.gov.in/eprocure/app</a>. In the Technical Bids, the bidders are required to upload all the documents in pdf format.</li> <li>ii. Possession of a Valid Class II/III Digital Signature Certificate (DSC) in the form of smart card/e-token in the company's name is a prerequisite for registration and participating in the bid submission activities through <a href="https://etenders.gov.in/eprocure/app">https://etenders.gov.in/eprocure/app</a></li> <li>iii. Digital Signature Certificates can be obtained from the authorized certifying agencies, details of which are available in the web site <a href="https://etenders.gov.in/eprocure/app">https://etenders.gov.in/eprocure/app</a> under the "Information about DSC".</li> </ul>
<b>H</b>	<b>Opening of the tender</b>	:	<p>The online bid will be opened by a committee duly constituted for this purpose. Online bids (complete in all respect) received along with scanned copy of EMD (if any) will be opened as mentioned at "Annexure: Schedule". Bid received without EMD (if present) will be rejected straight way. The technical bid will be opened online first and it will be examined by a technical committee (as per the eligibility criteria, specification and requirement). The financial offer/bid will be opened only for the offer/bid which technically meets all requirements as per the specification.</p>

I	Earnest Money Deposit (EMD)	:	<p>i. <b>EMD for Rs.1,00,000/- (Rupees one lakhonly) should be transferred to the following bank account on or before due date 02.12.2019 before 2 p.m.</b></p> <p>Name : Registrar IIT Madras  Bank : State Bank of India  Account No. : 10620824305  Branch : IIT MADRAS  IFSC CODE : SBIN0001055</p> <p>ii. The EMD transferred to IIT Madras as per IIT Madras Account details given above and the proof of transfer has to be submitted in the technical bid. Otherwise, the tender will be summarily rejected.</p> <p>iii. The EMD will be returned to unsuccessful tenderer only after the tenders are finalized.</p> <p>iv. <b>Performance Guarantee of Rs.1,00,000/-</b> has to be submitted by way of Bank Guarantee/DD by the successful bidder only.</p> <p>v. In case of successful tenderer, Performance Guarantee will be retained till the installation and completion of contract period.</p>
J	Marking on Technical Bid	:	<p>i. The technical Specification and scope of work is given in <b>Annexure A</b>. The bidder should provide their brand items as called for in <b>Annexure A</b> which is equivalent or of higher configuration.</p> <p>ii. The bidder shall go through the specification and scope of work and submit the technical bid.</p> <p>iii. The Technical bid should be submitted in the proforma given as per <b>Annexure B in pdf format only through online (e-tender). No manual submission of bid is entertained.</b></p> <p>iv. All technical bid should have the page-wise <b>heading as “Technical Bid” and Page no.</b> in all pages with seal and signature of authorized signatory. The total no. of pages should be mentioned at the last page of the documents.</p> <p>v. The technical bid should consist of all technical details along with catalogue/brochure and other technical, commercial terms and conditions.</p>
K	Marking on Price Bid	:	<p>i. Price bid should be submitted in the prescribed proforma <b>as per BOQ in excel</b> format through e-tender only. The sample format of BOQ is attached in <b>Annexure C.No manual submission of bid is entertained.</b></p> <p>ii. Price bid should indicate item-wise price as mentioned in the technical bid.</p> <p>iii. Total value in the price bid should be indicated in figures &amp; words clearly.</p> <p>iv. <b>Quote should be in INR / USD.</b></p>
2	<p><b>Preparation of Tender:</b></p> <p>a) You should quote your product as per our specification requirements by mentioning our requirements and your offer side by side and the rate should be item wise in total as per our requirements. We will not make any calculation if you have mentioned the rates of items separately.</p> <p>b) The offer/bids should be submitted through online only in two bid system i.e. Technical Bid and Price Bid separately.</p>		

<p><b>3</b></p>	<p><b>Technical Bid Evaluation:</b></p> <ol style="list-style-type: none"> <li>1. All bids received will be first evaluated for the vendor eligibility criteria. Bids of vendors who have qualified all vendor eligibility criteria alone will be subjected to technical bid evaluation.</li> <li>2. In the technical evaluation the technical specification offered by the bidder will be evaluated by the technical committee for compliance. The proposed technical specification offered by the bidder should be equivalent or higher to the specifications mentioned by IITM.</li> <li>3. The details of technical bid along with the supporting documents will be scrutinized by the technical committee.</li> <li>4. The technical selection will be item wise and items quoted which has satisfied the technical requirement will alone be considered for price bid opening. Items which have not satisfied the technical selection criteria will not be considered for price bid opening.</li> </ol>
<p><b>4</b></p>	<p><b>Price Bid Evaluation and Award of Contract:</b></p> <ol style="list-style-type: none"> <li>1. The price bids of vendor who have qualified technically (item wise) will alone be considered for price bid opening.</li> <li>2. The price quoted by each OEM will be compared with the market price to ascertain the reasonableness of the rate.</li> <li>3. The items which are reasonably rated alone will be selected.</li> <li>4. If a large price variation is observed between the equivalent items of different brand, the bidders may be asked to reduce the price / match the price of the lowest quoted item (equivalent items) and bidders who agrees for reduction / price matching will be considered for empanelment.</li> <li>5. The technical committee reserves the right to decide the shortlisting of the total number of items in the rate contract based on the requirement of IITM, technical competence of the items and rate quoted for the items.</li> <li>6. For the USD quotes, the exchange rate prevailing on the date of price bid opening will be taken for INR conversion.</li> </ol>
<p><b>5</b></p>	<p><b>Signing of Tender:</b></p> <p>The Tender is liable to be rejected if complete information is not given therein or if the particulars and date (if any) asked for in the schedule to the Tender are not fully filled in or not duly signed/authenticated. Specific attention is drawn to the delivery dates and terms and conditions enclosed herewith. Each page of the technical bid required to be signed and bears the official seal of the tenderers.</p>
<p><b>6</b></p>	<p><b>Period for which the offer will remain open:</b></p> <ol style="list-style-type: none"> <li>i. Quotations stating indefinite expressions such as 'subject to immediate acceptance', 'subject to prior sale' will not be considered.</li> <li>ii. The Tender shall remain open for acceptance/validity till 120 days from the date of opening of the tender</li> </ol>
<p><b>7</b></p>	<p><b>Prices:</b></p> <p>(a) The prices quoted must be nett per unit as per the technical specification mentioned in Annexure B and must include all Shipping, Handling, etc.. The prices quoted by the tenderer should be inclusive of GST and other statutory levies (and should be clearly stated to be so) which will be paid by the Purchaser/if legally leviable at the rate ruling on the date of supply as specified in the Acceptance of Tender. The percentage of tax etc. included in the price should be indicated in clear terms. If the inclusive price is not given, we will treat your offered rate as inclusive rate and comparison be made with others. If at the time of comparison of your offer without taxes etc. is happen to be lowest, you are bound to supply as per the offered rate, i.e. without taxes etc.</p> <p>(b) Concessional GST: IIT Madras is eligible for concessional GST @ 5% on IGST and @ 2.5% for CGST and SGST as per Notification No. 45/2017 – Central Tax (Rate) Dated 14th November 2017 &amp; Notification No.47/2017 – Integrated Tax (Rate) Dated 14th November 2017, for procurement of Equipment and Consumables for research purpose. At the time of Invoicing, please state the concessional GST accordingly. During the supply of item, a certificate to this effect will be issued to your firm.</p>

	<p>(c) Concessional Customs Duty: IIT Madras is eligible for Concessional Customs Duty in accordance with the Notification No. 51/96 Customs dated 23.07.1996 and DSIR Registration No. TU/V/RG-CDE (21)/2016, dated 31.10.2018. Hence, you are requested to quote accordingly for this tender. Necessary Essentiality Certificate will be issued in this regard. The customs duty will be payable / reimbursable by us at the time of clearance on production of necessary proof.</p> <p>(d) Prices should be quoted in INR and/or US Dollar only.</p> <p>(e) The rate quoted for indigenous purchase should be upto IIT Madras (cost should include item cost, packing, freight and delivery charges) and for imports, the quote should be for CIP Chennai.</p> <p>(f) <b>Discount percentage</b> for bulk purchases should be mentioned specifically in the technical bid. Any purchase of 5 units and above will be considered as bulk purchase.</p>
<b>8</b>	<b>Payment:</b> Payment will be made only after supply and satisfactory installation.
<b>9</b>	<p><b>Terms and conditions :</b></p> <ol style="list-style-type: none"> <li>1. Failure to comply with any of the instructions stated in this document or offering unsatisfactory explanations for non-compliance will likely to lead to rejection of offers.</li> <li>2. If the item supplied does not match to our configuration and is inferior in nature, necessary action will be taken to debar/black list the vendor. Non-delivery of items will lead to cancellation of Purchase Order without any notice period and further the non compliance of the contractual obligation will be noted and it will be taken up for evaluation / grading in the forthcoming tender evaluation.</li> <li>3. Return policy: If any items supplied are damaged or defective or the incorrect, it will be returned to the successful bidder(s) and it should be replaced by them within a week.</li> <li>4. Every supplied item should be a branded one with proof of certificate. No assembled set/lower grade items are accepted. In case of items supplied are found to be not genuine at any point of time, the firm will be rejected/black listed immediately.</li> <li>5. When any items shortlisted in Rate contract has reached "end of life" (EOL), the OEM should replace the EOL items immediately with the immediate higher version of that particular model in the same price of the EOL item. As and when an item reaches EOL, it should be communicated to IITM to take necessary steps to remove the EOL item and add the alternate item in place EOL model at the same rate. The final decision to accept the alternate model for EOL model lies with the technical committee.</li> <li>6. All orders will be placed by way of official Purchase Order.</li> </ol>
<b>10</b>	<p><b>Right of Acceptance:</b></p> <p>IIT Madras reserves the right to reject the whole or any part of the Tender without assigning any reason or to accept them in part or full.</p>
<b>11</b>	<p><b>Communication of Acceptance:</b></p> <p>Acceptance by the Purchaser will be communicated by Post, if required, and the Company's acceptance communicated to us formally in writing.</p>
<b>12</b>	<b>Warranty:</b> The OEM warranty should be atleast for 3 years.
<b>13</b>	<b>Packing:</b> The supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the final destination of the goods and the absence of heavy handling facilities at all points in transit.

<b>14</b>	<b>Delivery: Supply and installation has to be done in IIT Madras Campus.</b> The empanelled vendors are expected to supply the item within 2 weeks for indigenous purchase and within one month in case of imports from the date of issue of Purchase order. The item should be delivered to IIT Madras to the location specified in the Purchase Order. The item should be appropriately packed and necessary insurance to be covered till the delivery point. The installation should be completed within 48 hours of supply of item and it should be done only by competent certified professionals.
<b>15</b>	In terms of Rule 173 (iv) of General Financial Rules, 2017 the bidder shall be at liberty to question the bidding conditions, bidding process and/or rejection of its bid.
<b>16</b>	<b>Transit Insurance:</b> The Purchaser will not pay separately for transit insurance.
<b>17</b>	<b>Tenderer shall submit along with his Tender:</b> Name and full address of the Banker and their swift code and PAN No. and GSTIN number.
<b>18</b>	<b>Signing of Contract:</b> Within twenty-one (21) days of date of the Order Acknowledgment, the successful Bidder shall sign, and date the contract. If order acknowledgement is not received / Contract is not signed, the award shall be cancelled and EMD will be forfeited.
<b>19</b>	<b>Guarantee:</b> The tenderer has to declare that the goods sold to the buyer under this contract shall be of the best quality and workmanship and shall be strictly in accordance with the specifications. Tenderer should indicate the period for which said goods/articles would continue to conform to the specifications.
<b>20</b>	<b>Jurisdiction:</b> All questions, disputes, or differences arising under, out of or in connection with the contract, if concluded, shall be subject to the exclusive jurisdiction at the place from which the acceptance of Tender is issued.
<b>21</b>	<b>Force Majeure:</b> The Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, it's delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure. <ul style="list-style-type: none"><li>• For purposes of this Clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of the Purchaser either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.</li><li>• If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier 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.</li></ul>
<b>22</b>	<b>Risk Purchase Clause:</b> In event of failure of supply of the item/equipment within the stipulated delivery schedule, the purchaser has all the right to purchase the item/equipment from the other source on the total risk of the supplier under risk purchase clause
<b>23</b>	<b><u>For technical related queries Contact :</u></b>  <b>Shri. M. Irudayaraj</b> Junior Technical Superintendent Computer Centre IIT Madras Chennai - 600 036. Phone No: 044- 2257 4983

Yours faithfully

Sd/-  
DEPUTY REGISTRAR (S&P)



## **ACKNOWLEDGEMENT**

It is hereby acknowledged that I/We have gone through all the points listed under “Specification, Guidelines, Terms and Conditions” of tender document. I/We totally understand the terms and conditions and agree to abide by the same.

**SIGNATURE OF TENDERER ALONG  
WITH SEAL OF THE COMPANY  
WITH DATE**

**DECLARATION**

I/We/ M/s \_\_\_\_\_ hereby  
declare that we have the required certificate issued by OEM and  
I/We/M/s \_\_\_\_\_ have office at Chennai with experts  
/ specialists to handle installation, configuration and solving all types of issues in  
time.

**SIGNATURE OF TENDERER ALONG  
WITH SEAL OF THE COMPANY  
WITH DATE**

**COMPUTER AND COMPUTER RELATED ITEMS****I Scope of Work**

1. The tender is for the supply, installation and after supply service of computers and other computer related items under rate contract from the Original Equipment Manufacturers (OEM) for the period of one year starting from the date of award of contract.
2. The OEM shall directly bid and submit the technical and financial bid. The OEM shall authorize 2 Premium Partners to carry out the supply and installation work and also for the “after supply services”.
3. The list of items proposed to be purchased on rate contract basis is given in Annexure A.
4. There are two lists of items proposed to be purchased through rate contract. List 1 has items like Desktop, All in One, Hard Disk, Graphics Card, Laptop, Monitor, RAM, Server, Tablet and Workstation. List 2 has Spares.
5. The OEM shall quote from his own brand for the items given in List 1 and for List 2 items, the OEM shall quote for the most suitable brand which will be compatible with the items in List 1.
6. The technical specification of List 1 and List 2 items are given in Annexure A (III). The OEM should provide their brand items as called in Annexure A(III) which is equivalent or higher configuration.
7. After technical evaluation and final selection more than one OEM will be empanelled as per the requirement of IITM in the Computer Rate Contract.
8. IITM will place order as per its requirement from the list of empanelled rate contract vendors. The empanelled vendors are required to maintain sufficient stock of the items as per the finalized list of the Rate Contract to facilitate supply of the items within the stipulated time duration of supply specified in the tender.
9. All orders will be placed by way of official Purchase Order.
10. OEM warranty should be of 3 years for computer items.
11. The empanelled vendors are expected to supply the item within 2 weeks for indigenous purchase and within one month in case of imports from the date of issue of Purchase order. The installation should be completed within 48 hours of supply of item and it should be done only by competent certified professionals.
12. Payment will be made only after supply and satisfactory installation and also technical clearance from the concerned department of IITM.
13. Every effort will be made to release the payment within 30 days from the date of installation of the items.
14. When any items shortlisted in Rate contract has reached “end of life” (EOL), the OEM should replace the EOL items immediately with the immediate higher version of that particular model in the same price of the EOL item. As and when an item reaches EOL, it should be communicated to IITM to take necessary steps to remove the EOL item and add the alternate item in place EOL model at the same rate. The final decision to accept the alternate model for EOL model lies with the technical committee.
15. If the item supplied does not match to our configuration and in inferior nature, necessary action will be taken to debar/black list the vendor. Non delivery of items will lead to cancellation of Purchase Order without any notice period and further the non-compliance of the contractual obligation will be noted and it will be taken up for evaluation / grading in the forthcoming tender evaluation.
16. Return policy: If any items are damaged or defective or if an incorrect product is supplied, such item will be returned to the vendor and it should be replaced by the vendors within a week.

17. Every supplied item should be a branded one with proof of certificate. No assembled set/lower grade items are accepted. In case of items supplied are not genuine at any point of time, the firm will be rejected/black listed immediately.
18. There will be no procurement guarantee that all items from all empanelled vendor will be procured during the contract period by IITM.
19. IITM has the liberty to procure computer / computer related items by other tender process apart from the computer Rate Contract.
20. Licence violation is not acceptable. Items / Modules / Specifications which require licence should be furnished with relevant documents including price.

## **II Vendor Eligibility Criteria**

<b>S.No.</b>	<b>Description</b>
<b>1</b>	<ul style="list-style-type: none"> <li>(i) The OEM should have 10 years' experience in manufacturing of computers and computer related items as called for in the tender. (Necessary proof to be submitted).</li> <li>(ii) The business turnover of the OEM should be more than Rupees Ten Crores per year (each in the last 5 years). Last 5 years' financial statements / certificates issued by Chartered Accountant should be submitted as proof.</li> <li>(iii) The OEM should be / should have been a registered Rate Contract vendor for the supply of computer and computer related items with Government organizations / Public Sector Undertakings / Reputed Organizations. Proof of contract should be submitted.</li> <li>(iv) The OEM should authorize not more than 2 Premium Partners to supply and provide service for the items quoted in this tender. Authorization Form as per Annexure D issued by OEM authorizing the premium partners should be submitted.</li> </ul>
<b>2</b>	<ul style="list-style-type: none"> <li>(i) The OEM authorized premium partner should have experience in executing the similar rate contract in Government organizations / Public Sector Undertakings / Reputed Organizations.</li> <li>(ii) The business turnover of the Premium Partner should not be less than Rupees One Crore per year for the last 3 years. Last 3 years' financial statements / certificates issued by Chartered Accountant should be submitted as proof</li> <li>(iii) The Premium Partner of the OEM should have an Office at Chennai with experts / specialists to handle installation, configuration and to solve all types of issues in time.</li> </ul>

### III Technical specification

### LIST 1

<p><b>1</b>      <b><u>ALL IN ONE</u></b></p> <p>1.1      Specification ID: <b>AIO1</b></p> <p>1 X Intel core i3-8300 Quad Core (4 Core/8MB/4T/3.7GHz/62~65W)  1 X H370 chipset or higher  1 X 8GB DDR4 2666MHz - 3/4 additional Memory Bank  1 X 1TB HDD 7.2K RPM  1 X USB Keyboard  1 X USB Mouse  1 X DVD RW  1 X VGA, HDMI, DP  1 X 21.0 – 24.0 inch Display  3 Years Support</p> <p>1.2      Specification ID: <b>AIO2</b></p> <p>1 X Intel core i5-8500 (6 Core/9MB/6T/3.0 GHz,Turbo 4.10GHz/62~65W)  1 X H370 Chipset or Higher  1 X 8GB DDR4 2666 MHz - 3/4 additional Memory Bank  1 X 1TB HDD 7.2K RPM  1 X USB Keyboard  1 X USB Mouse  1 X DVD RW  1 X VGA,HDMI,DP  1 X 21.0 – 24.0 inch Display  3 Years Support</p> <p>1.3      Specification ID: <b>AIO3</b></p> <p>1 X Intel core i7-8700 (6 Core/12MB/12T/3.2 GHz upto 4.6 GHz/62~65W)  1 X H370 Chipset or Higher  1 X 8GB DDR4 2666 - 3/4 additional Memory Bank  1 X 1TB HDD 7.2K  1 X USB Keyboard  1 X USB Mouse  1 X DVD RW  1 X VGA,HDMI,DP  1 X 21.0 – 24.0 inch Display  3 Years Support</p> <p>1.4      Specification ID: <b>AIO4</b></p> <p>1 X AMD Ryzen™ 7 3700X  1 X X570 Chipset Equivalent or Higher  1 X 8GB DDR4 - 3/4 additional Memory Bank  1 X 1TB HDD 7.2K RPM  1 X DVD RW  1 X USB Keyboard  1 X USB Mouse  1 X VGA, HDMI, DP  1 X 21.0 – 24.0 inch Display  3 Years Support</p>	<p>1.5      Specification ID: <b>AIO5</b></p> <p>1 X AMD Ryzen™ Threadripper™ 2950X  1 X X470 Chipset Equivalent or Higher  1 X 8GB DDR4 - 3/4 additional Memory Bank  1 X 1TB HDD 7.2K RPM  1 X DVD RW  1 X USB Keyboard  1 X USB Mouse  1 X VGA, HDMI, DP  1 X 21.0 – 24.0 inch Display  3 Years Support</p> <p><b>2</b>      <b><u>APPLE (BRAND ITEMS)</u></b></p> <p>2.1      Specification ID: <b>APP01</b></p> <p>Brand : APPLE  Type : MacBook  Size : 12.0 – 12.9 (inch)  Retine 4k :  Retine 5k :  Processor 9th Gen : Intel i5  Cache : required  Ram Size : 8GB - DDR4  Ram Speed : 2133  HDD Type : SSD  HDD Size : 512 GB  Ethernet : required  Bluetooth : required required  Wifi : required  Thunderbolt : v3  Mini Display Port : Mini Display Port  Audio Ports : required  USB/USB-C : required  Color : unspecified  Touch Screen : -  Battery Life : -  Anti-Glare : required  Graphic Processor : Default  Blacklit : required  Hyper Threading : required  Turbo Boost : required  Multi Card Slot : required  Finger Print Sensor/Touch ID : required  Web Cam : 5.0 Front / 8.0 Rear  Active Stylus Pen : -  Warranty : 3 years and above  Accessories : PowerCord+Charger+KickStand  Operating System : Catalina(10.15)</p> <p>2.2      Specification ID: <b>APP02</b></p> <p>Brand : APPLE  Type : MacBook Air  Size : 13.3 (inch)  Retine 4k :</p>
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Retine 5k :  
 Processor 9th Gen : Intel i5  
 Cache : 4MB L3  
 Ram Size : 8GB - DDR4  
 Ram Speed : 2133  
 HDD Type : SSD  
 HDD Size : 512 GB  
 Ethernet : -  
 Bluetooth : 4.2v required  
 Wifi : IEEE 802.11a/b/g/n  
 Thunderbolt : v3  
 Mini Display Port : required  
 Audio Ports : required  
 USB/USB-C : required  
 Color : unspecified  
 Touch Screen : -  
 Battery Life : -  
 Anti-Glare : -  
 Graphic Processor : Intel UHD Graphics 617  
 Blacklit : required  
 Hyper Threading : required  
 Turbo Boost : required  
 Multi Card Slot : -  
 Finger Print Sensor/Touch ID : required  
 Web Cam : 720p Face Time HD  
 Active Stylus Pen : -  
 Warranty : 3 years and above  
 Accessories : PowerCord+Charger  
 Operating System : Catalina(10.15)

2.3 Specification ID: **APP03**

Brand : APPLE  
 Type : MacBook Pro  
 Size : 13.3 (inch)  
 Retine 4k :  
 Retine 5k :  
 Processor 9th Gen : Intel i5  
 Cache : 4MB L3  
 Ram Size : 8GB - DDR4  
 Ram Speed : 2133  
 HDD Type : SSD  
 HDD Size : 512 GB  
 Ethernet : -  
 Bluetooth : 4.2v required  
 Wifi : IEEE 802.11a/b/g/n  
 Thunderbolt : v3  
 Mini Display Port : required  
 Audio Ports : required  
 USB/USB-C : required  
 Color : unspecified  
 Touch Screen : -  
 Battery Life : -  
 Anti-Glare : -  
 Graphic Processor : Intel Iris Plus Graphics 640  
 Blacklit : required  
 Hyper Threading : required  
 Turbo Boost : required  
 Multi Card Slot : -

2.4 Specification ID: **APP04**

Brand : APPLE  
 Type : MacBook Pro  
 Size : 15.4 (inch)  
 Retine 4k :  
 Retine 5k :  
 Processor 9th Gen : Intel i5  
 Cache : 6MB L3  
 Ram Size : 8GB - DDR4  
 Ram Speed : 2133  
 HDD Type : SSD  
 HDD Size : 512 GB  
 Ethernet : -  
 Bluetooth : 4.2v required  
 Wifi : IEEE 802.11a/b/g/n  
 Thunderbolt : v3  
 Mini Display Port : required  
 Audio Ports : required  
 USB/USB-C : required  
 Color : unspecified  
 Touch Screen : -  
 Battery Life : -  
 Anti-Glare : -  
 Graphic Processor : Intel Iris Plus Graphics 640  
 Blacklit : required  
 Hyper Threading : required  
 Turbo Boost : required  
 Multi Card Slot : -  
 Finger Print Sensor/Touch ID : required  
 Web Cam : 720p Face Time HD  
 Active Stylus Pen : -  
 Warranty : 3 years and above  
 Accessories : PowerCord+Charger  
 Operating System : Catalina(10.15)

2.5 Specification ID: **APP05**

Brand : APPLE  
 Type : iMac  
 Size : 21.5 (inch)  
 Retine 4k :  
 Retine 5k :  
 Processor 9th Gen : Intel i5  
 Cache : 6MB L3  
 Ram Size : 8GB - DDR4  
 Ram Speed : 2333  
 HDD Type : SSD  
 HDD Size : 512 GB  
 Ethernet : required  
 Bluetooth : 4.2v required  
 Wifi : IEEE 802.11a/b/g/n

Thunderbolt : -  
Mini Display Port : required  
Audio Ports : required  
USB/USB-C : required  
Color : unspecified  
Touch Screen : -  
Battery Life : -  
Anti-Glare : -  
Graphic Processor : Radeon Pro 570X, 575X, or 580X  
graphics processor  
Blacklit : -  
Hyper Threading : required  
Turbo Boost : required  
Multi Card Slot : required  
Finger Print Sensor/Touch ID : -  
Web Cam : Face Time HD  
Active Stylus Pen : -  
Warranty : 3 years and above  
Accessories : PowerCord+DVDRW  
Operating System : Catalina(10.15)

2.6 Specification ID: **APP06**

Brand : APPLE  
Type : iMac  
Size : 21.5 (inch)  
Retine 4k :  
Retine 5k :  
Processor 9th Gen : Intel i5  
Cache : 6MB L3  
Ram Size : 8GB - DDR4  
Ram Speed : 2333  
HDD Type : SSD  
HDD Size : 512 GB  
Ethernet : required  
Bluetooth : 4.2v required  
Wifi : IEEE 802.11a/b/g/n  
Thunderbolt : -  
Mini Display Port : required  
Audio Ports : required  
USB/USB-C : required  
Color : unspecified  
Touch Screen : -  
Battery Life : -  
Anti-Glare : -  
Graphic Processor : Radeon Pro 570X, 575X, or 580X  
graphics processor  
Blacklit : -  
Hyper Threading : required  
Turbo Boost : required  
Multi Card Slot : required  
Finger Print Sensor/Touch ID : -  
Web Cam : Face Time HD  
Active Stylus Pen : -  
Warranty : 3 years and above  
Accessories : PowerCord+DVDRW  
Operating System : Catalina(10.15)

2.7 Specification ID: **APP07**

Brand : APPLE  
Type : iMac  
Size : 27 (inch)  
Retine 4k :  
Retine 5k :  
Processor 9th Gen : Intel i7  
Cache : 6MB L3  
Ram Size : 8GB - DDR4  
Ram Speed : 2666  
HDD Type : SSD  
HDD Size : 512 GB  
Ethernet : required  
Bluetooth : 4.2v required  
Wifi : IEEE 802.11a/b/g/n  
Thunderbolt : -  
Mini Display Port : required  
Audio Ports : required  
USB/USB-C : required  
Color : unspecified  
Touch Screen : -  
Battery Life : -  
Anti-Glare : -  
Graphic Processor : Radeon Pro 570X, 575X, or 580X  
graphics processor  
Blacklit : -  
Hyper Threading : required  
Turbo Boost : required  
Multi Card Slot : required  
Finger Print Sensor/Touch ID : -  
Web Cam : Face Time HD  
Active Stylus Pen : -  
Warranty : 3 years and above  
Accessories : PowerCord+DVDRW  
Operating System : Catalina(10.15)

2.8 Specification ID: **APP08**

Brand : APPLE  
Type : iMac Pro  
Size : 27 (inch)  
Retine 4k :  
Retine 5k :  
Processor 9th Gen : Intel i7  
Cache : 6MB L3  
Ram Size : 8GB - DDR4  
Ram Speed : 2666  
HDD Type : SSD  
HDD Size : 512 GB  
Ethernet : required  
Bluetooth : 4.2v required  
Wifi : IEEE 802.11a/b/g/n  
Thunderbolt : -  
Mini Display Port : required  
Audio Ports : required  
USB/USB-C : required  
Color : unspecified  
Touch Screen : -

Battery Life : -  
Anti-Glare : -  
Graphic Processor : Radeon Pro 570X, 575X, or 580X graphics processor  
Blacklit : -  
Hyper Threading : required  
Turbo Boost : required  
Multi Card Slot : required  
Finger Print Sensor/Touch ID : -  
Web Cam : Face Time HD  
Active Stylus Pen : -  
Warranty : 3 years and above  
Accessories : PowerCord+DVDRW  
Operating System : Catalina(10.15)

2.9 Specification ID: **APP09**

Brand : APPLE  
Type : Mac Pro  
Size : - (inch)  
Retine 4k :  
Retine 5k :  
Processor 9th Gen : Intel i7  
Cache : 12MB  
Ram Size : 8GB - DDR4  
Ram Speed : 2666  
HDD Type : SSD  
HDD Size : 1024 GB  
Ethernet : required  
Bluetooth : 4.2v required  
Wifi : -  
Thunderbolt : -  
Mini Display Port : -  
Audio Ports : required  
USB/USB-C : required  
Color : unspecified  
Touch Screen : -  
Battery Life : -  
Anti-Glare : -  
Graphic Processor : Dual AMD FirePro graphics  
Blacklit : -  
Hyper Threading : required  
Turbo Boost : required  
Multi Card Slot : required  
Finger Print Sensor/Touch ID : -  
Web Cam : -  
Active Stylus Pen : -  
Warranty : 3 years and above  
Accessories : PowerCord+DVDRW(External)  
Operating System : Catalina(10.15)

2.10 Specification ID: **APP10**

Brand : APPLE  
Type : Mac Mini  
Size : - (inch)  
Retine 4k :  
Retine 5k :  
Processor 9th Gen : Intel i5

Cache : required  
Ram Size : 8GB - DDR4  
Ram Speed : 2666  
HDD Type : SSD  
HDD Size : 512 GB  
Ethernet : required  
Bluetooth : 4.2v required  
Wifi : IEEE 802.11a/b/g/n  
Thunderbolt : -  
Mini Display Port : -  
Audio Ports : required  
USB/USB-C : required  
Color : unspecified  
Touch Screen : -  
Battery Life : -  
Anti-Glare : -  
Graphic Processor : Intel UHD graphics 630  
Blacklit : -  
Hyper Threading : required  
Turbo Boost : required  
Multi Card Slot : required  
Finger Print Sensor/Touch ID : -  
Web Cam : -  
Active Stylus Pen :  
Warranty : 3 years and above  
Accessories : PowerCord+DVDRW(External)  
Operating System : Catalina(10.15)

2.11 Specification ID: **APP11**

Brand : APPLE  
Type : iPad Pro  
Size : 12.9 (inch)  
Retine 4k :  
Retine 5k :  
Processor 9th Gen : A12X Bionic chip  
Cache : -  
Ram Size : -GB - DDR4  
Ram Speed : -  
HDD Type : -  
HDD Size : 512 GB  
Ethernet : Wi-Fi/Wi-Fi+Cellular  
Bluetooth : 4.2v required  
Wifi : IEEE 802.11a/b/g/n  
Thunderbolt : -  
Mini Display Port : -  
Audio Ports : required  
USB/USB-C : USB-C connector for charging and accessories  
Color : unspecified  
Touch Screen : required  
Battery Life : 10 hours of battery life  
Anti-Glare : required  
Graphic Processor : -  
Blacklit : -  
Hyper Threading : required  
Turbo Boost : required  
Multi Card Slot : required  
Finger Print Sensor/Touch ID : required



Web Cam : 12mp Back + 7mp Front cam  
Active Stylus Pen : Optional  
Warranty : 3 years and above  
Accessories : PowerCord + Headset  
Operating System : Latest macOS

2.12 Specification ID: **APP12**

Brand : APPLE  
Type : iPad Pro  
Size : 11 (inch)  
Retine 4k :  
Retine 5k :  
Processor 9th Gen : A12X Bionic chip  
Cache : -  
Ram Size : -GB - DDR4  
Ram Speed : -  
HDD Type : -  
HDD Size : 512 GB  
Ethernet : Wi-Fi/Wi-Fi+Cellular  
Bluetooth : 4.2v required  
Wifi : IEEE 802.11a/b/g/n  
Thunderbolt : -  
Mini Display Port : -  
Audio Ports : required  
USB/USB-C : USB-C connector for charging and accessories  
Color : unspecified  
Touch Screen : required  
Battery Life : 10 hours of battery life  
Anti-Glare : required  
Graphic Processor : -  
Blacklit : -  
Hyper Threading : required  
Turbo Boost : required  
Multi Card Slot : required  
Finger Print Sensor/Touch ID : required  
Web Cam : 12mp Back + 7mp Front cam  
Active Stylus Pen : Optional  
Warranty : 3 years and above  
Accessories : PowerCord + Headset  
Operating System : Latest macOS

2.13 Specification ID: **APP13**

Brand : APPLE  
Type : iPad Air  
Size : 10.5 (inch)  
Retine 4k :  
Retine 5k :  
Processor 9th Gen : A12X Bionic chip  
Cache : -  
Ram Size : -GB - DDR4  
Ram Speed : -  
HDD Type : -  
HDD Size : 256 GB  
Ethernet : Wi-Fi/Wi-Fi+Cellular  
Bluetooth : 4.2v required  
Wifi : IEEE 802.11a/b/g/n

Thunderbolt : --  
Mini Display Port : -  
Audio Ports : required  
USB/USB-C : USB-C connector for charging and accessories  
Color : unspecified  
Touch Screen : required  
Battery Life : 10 hours of battery life  
Anti-Glare : required  
Graphic Processor : -  
Blacklit : -  
Hyper Threading : required  
Turbo Boost : required  
Multi Card Slot : required  
Finger Print Sensor/Touch ID : required  
Web Cam : 8mp Back + 7mp Front cam  
Active Stylus Pen : Optional  
Warranty : 3 years and above  
Accessories : PowerCord + Headset  
Operating System : Latest macOS

2.14 Specification ID: **APP14**

Brand : APPLE  
Type : iPad  
Size : 9.7 (inch)  
Retine 4k :  
Retine 5k :  
Processor 9th Gen : A10 Fusion chip  
Cache : -  
Ram Size : -GB - DDR4  
Ram Speed : -  
HDD Type : -  
HDD Size : 128 GB  
Ethernet : Wi-Fi/Wi-Fi+Cellular  
Bluetooth : 4.2v required  
Wifi : IEEE 802.11a/b/g/n  
Thunderbolt : -  
Mini Display Port : -  
Audio Ports : required  
USB/USB-C : USB-C connector for charging and accessories  
Color : unspecified  
Touch Screen : required  
Battery Life : 10 hours of battery life  
Anti-Glare : required  
Graphic Processor : -  
Blacklit : -  
Hyper Threading : required  
Turbo Boost : required  
Multi Card Slot : required  
Finger Print Sensor/Touch ID : required  
Web Cam : 8MP Back + 1.2MP Face Time  
Active Stylus Pen : Optional  
Warranty : 3 years and above  
Accessories : PowerCord + Headset  
Operating System : Latest macOS

<p>2.15 Specification ID: <b>APP15</b></p> <p>Brand : APPLE  Type : iPad Mini  Size : 7.9 (inch)  Retine 4k :  Retine 5k :  Processor 9th Gen : A12X Bionic chip  Cache : -  Ram Size : -GB - DDR4  Ram Speed : -  HDD Type : -  HDD Size : 128 GB  Ethernet : Wi-Fi/Wi-Fi+Cellular  Bluetooth : 4.2v required  Wifi : IEEE 802.11a/b/g/n  Thunderbolt : -  Mini Display Port : -  Audio Ports : required  USB/USB-C : USB-C connector for charging and accessories  Color : unspecified  Touch Screen : required  Battery Life : 10 hours of battery life  Anti-Glare : required  Graphic Processor : -  Blacklit : -  Hyper Threading : required  Turbo Boost : required  Multi Card Slot : required  Finger Print Sensor/Touch ID : required  Web Cam : 8mp Back + 7mp Front cam  Active Stylus Pen : Optional  Warranty : 3 years and above  Accessories : PowerCord + Headset  Operating System : Latest macOS</p>	<p>1 X 1TB HDD 7.2K RPM  1 X USB Keyboard  1 X USB Mouse  1 X DVD RW  1 X VGA,HDMI,DP  3 Years Support</p>
<p><b>3</b> <b><u>DESKTOP</u></b></p>	
<p>3.1 Specification ID: <b>DSK1</b></p> <p>1 X Intel core i3-8300 Quad Core (4 Core/8MB/4T/3.7GHz/62~65W)  1 X H370 chipset or higher  1 X 8GB DDR4 2666MHz - 3/4 additional Memory Bank  1 X 1TB HDD 7.2K RPM  1 X USB Keyboard  1 X USB Mouse  1 X DVD RW  1 X VGA, HDMI, DP  3 Years Support</p>	<p>3.3 Specification ID: <b>DSK3</b></p> <p>1 X Intel core i7-8700 (6 Core/12MB/12T/3.2 GHz upto 4.6 GHz/62~65W)  1 X Q370 Chipset or Higher  1 X 8GB DDR4 2666 - 3/4 additional Memory Bank  1 X 1TB HDD 7.2K  1 X USB Keyboard  1 X USB Mouse  1 X DVD RW  1 X VGA,HDMI,DP  3 Years Support</p>
<p>3.2 Specification ID: <b>DSK2</b></p> <p>1 X Intel core i5-8500 (6 Core/9MB/6T/3.0 GHz,Turbo 4.10GHz/62~65W)  1 X H370 Chipset or Higher  1 X 8GB DDR4 2666 MHz - 3/4 additional Memory Bank</p>	<p>3.4 Specification ID: <b>DSK4</b></p> <p>1 X Intel Core i9-7900X (8 Core/3.30~4.30 Ghz/13.75MB"L3"/)  1 X Q370 Chipset or Higher  1 X 8GB DDR4 2666 - 3/4 additional Memory Bank  1 X 1TB HDD 7.2K RPM  1 X DVD RW  1 X USB Keyboard  1 X USB Mouse  1 X VGA, HDMI, DP  3 Years Support</p>
	<p>3.5 Specification ID: <b>DSK5</b></p> <p>1 X AMD Ryzen™ 7 3700X  1 X X570 Chipset Equivalent or Higher  1 X 8GB DDR4 - 3/4 additional Memory Bank  1 X 1TB HDD 7.2K RPM  1 X DVD RW  1 X USB Keyboard  1 X USB Mouse  1 X VGA, HDMI, DP  3 Years Support</p>
	<p>3.6 Specification ID: <b>DSK6</b></p> <p>1 X AMD Ryzen™ Threadripper™ 2950X  1 X X470 Chipset Equivalent or Higher  1 X 8GB DDR4 - 3/4 additional Memory Bank  1 X 1TB HDD 7.2K RPM  1 X DVD RW  1 X USB Keyboard  1 X USB Mouse  1 X VGA, HDMI, DP  3 Years Support</p>

## 4 **GRAPHICS CARD**

### 4.1 Specification ID: **GRP01**

Category : Graphic Card  
Brand : NVIDIA  
GPU Memory : 5 GB GDDR5  
Core : CUDA 1024  
Chipset : NVIDIA Quadro P2000  
Compute Api's :  
Power Consumption :  
Operating System : Windows & Linux  
Warranty : 3+ Years

### 4.2 Specification ID: **GRP02**

Category : Graphic Card  
Brand : NVIDIA  
GPU Memory : 16 GB HBM2  
Core : CUDA 5120  
Chipset : NVIDIA V100 PCIe  
Compute Api's :  
Power Consumption :  
Operating System : Windows & Linux  
Warranty : 3+ Years

### 4.3 Specification ID: **GRP03**

Category : Graphic Card  
Brand : NVIDIA  
GPU Memory : 32 GB HBM2  
Core : CUDA 5120  
Chipset : NVIDIA V100 SXM2  
Compute Api's :  
Power Consumption :  
Operating System : Windows & Linux  
Warranty : 3+ Years

### 4.4 Specification ID: **GRP04**

Category : Graphic Card  
Brand : NVIDIA  
GPU Memory : 8 GB  
Core : CUDA 2304  
Chipset : NVIDIA RTX 4000  
Compute Api's :  
Power Consumption :  
Operating System : Windows & Linux  
Warranty : 3+ Years

### 4.5 Specification ID: **GRP05**

Category : Graphic Card  
Brand : NVIDIA  
GPU Memory : 16 GB GDDR6  
Core : CUDA 3072  
Chipset : NVIDIA RTX 5000  
Compute Api's :  
Power Consumption :  
Operating System : Windows & Linux  
Warranty : 3+ Years

### 4.6 Specification ID: **GRP06**

Category : Graphic Card  
Brand : NVIDIA  
GPU Memory : 24 GB GDDR6  
Core : CUDA 4608  
Chipset : NVIDIA RTX 6000  
Compute Api's :  
Power Consumption :  
Operating System : Windows & Linux  
Warranty : 3+ Years

### 4.7 Specification ID: **GRP07**

Category : Graphic Card  
Brand : NVIDIA  
GPU Memory : 48 GB GDDR6  
Core : CUDA 4608  
Chipset : NVIDIA RTX 8000  
Compute Api's :  
Power Consumption :  
Operating System : Windows & Linux  
Warranty : 3+ Years

### 4.8 Specification ID: **GRP08**

Category : Graphic Card  
Brand : NVIDIA  
GPU Memory : 32 GB HBM2  
Core : CUDA 5120  
Chipset : NVIDIA QUADRO GV100  
Compute Api's :  
Power Consumption :  
Operating System : Windows & Linux  
Warranty : 3+ Years

### 4.9 Specification ID: **GRP09**

Category : Graphic Card  
Brand : NVIDIA  
GPU Memory : 16 GB HBM2  
Core : CUDA 3584  
Chipset : NVIDIA Quadro GP100  
Compute Api's :  
Power Consumption :  
Operating System : Windows & Linux  
Warranty : 3+ Years

### 4.10 Specification ID: **GRP10**

Category : Graphic Card  
Brand : NVIDIA  
GPU Memory : 24 GB GDDR6  
Core : CUDA 4608  
Chipset : TITAN RTX  
Compute Api's :  
Power Consumption :  
Operating System : Windows & Linux  
Warranty : 3+ Years

<p>4.11 Specification ID: <b>GRP11</b></p> <p>Category : Graphic Card  Brand : AMD  GPU Memory : 8 GB HBM2  Core : Stream Processors: 3584  Chipset : AMD Radeon Pro WX 8200  Compute Api's :  Power Consumption :  Operating System : Windows &amp; Linux  Warranty : 3+ Years</p>	<p><b>5</b></p>	<p><b><u>HARD DISK</u></b></p>
	<p>5.1</p>	<p>Specification ID: <b>HDD01</b></p> <p>Type : SAS  Capacity : 300  Interface : 12Gb/s  Speed : 10k  Size : 2.5</p>
	<p>5.2</p>	<p>Specification ID: <b>HDD02</b></p> <p>Type : SAS  Capacity : 300  Interface : 12Gb/s  Speed : 15k  Size : 2.5</p>
<p>4.12 Specification ID: <b>GRP12</b></p> <p>Category : Graphic Card  Brand : AMD  GPU Memory : 8 GB GDDR5  Core : Stream Processors: 2304  Chipset : AMD Radeon Pro WX 7100  Compute Api's :  Power Consumption :  Operating System : Windows &amp; Linux  Warranty : 3+ Years</p>	<p><b>5.3</b></p>	<p>Specification ID: <b>HDD03</b></p> <p>Type : SAS  Capacity : 600  Interface : 12Gb/s  Speed : 10k  Size : 2.5</p>
<p>4.13 Specification ID: <b>GRP13</b></p> <p>Category : Graphic Card  Brand : AMD  GPU Memory : 16GB HBM2  Core : Stream Processors: 4096  Chipset : AMD Radeon Vega Frontier Edition  Compute Api's :  Power Consumption :  Operating System : Windows &amp; Linux  Warranty : 3+ Years</p>	<p><b>5.4</b></p>	<p>Specification ID: <b>HDD04</b></p> <p>Type : SAS  Capacity : 600  Interface : 12Gb/s  Speed : 15k  Size : 2.5</p>
	<p>5.5</p>	<p>Specification ID: <b>HDD05</b></p> <p>Type : SAS  Capacity : 900  Interface : 12Gb/s  Speed : 10k  Size : 2.5</p>
<p>4.14 Specification ID: <b>GRP14</b></p> <p>Category : Graphic Card  Brand : AMD  GPU Memory : 16 GB HBM2  Core : Stream Processors: 4096  Chipset : Radeon Pro SSG  Compute Api's :  Power Consumption :  Operating System : Windows &amp; Linux  Warranty : 3+ Years</p>	<p><b>5.6</b></p>	<p>Specification ID: <b>HDD06</b></p> <p>Type : SAS  Capacity : 900  Interface : 12Gb/s  Speed : 15k  Size : 2.5</p>
<p>4.15 Specification ID: <b>GRP15</b></p> <p>Category : Graphic Card  Brand : AMD  GPU Memory : 32 GB GDDR5  Core : Stream Processors: 4608 (2x2304)  Chipset : Radeon Pro Duo  Compute Api's :  Power Consumption :  Operating System : Windows &amp; Linux  Warranty : 3+ Years</p>	<p><b>5.7</b></p>	<p>Specification ID: <b>HDD07</b></p> <p>Type : SATA 3  Capacity : 10000  Interface : 6Gb/s  Speed : 7.2k  Size : 3.5</p>

- 5.8 Specification ID: **HDD08**
- Type : SATA 3  
Capacity : 12000  
Interface : 6Gb/s  
Speed : 7.2k  
Size : 3.5
- 5.9 Specification ID: **HDD09**
- Type : SATA 3  
Capacity : 10000  
Interface : 6Gb/s  
Speed : 7.2k  
Size : 2.5
- 5.10 Specification ID: **HDD10**
- Type : SATA 3  
Capacity : 12000  
Interface : 6Gb/s  
Speed : 7.2k  
Size : 2.5
- 5.11 Specification ID: **HDD11**
- Type : SSD  
Capacity : 480  
Interface : 6Gb/s  
Speed : 85K – 95k RIO  
Size : 2.5
- 5.12 Specification ID: **HDD12**
- Type : SSD  
Capacity : 960  
Interface : 6Gb/s  
Speed : 85K – 95k RIO  
Size : 2.5
- 5.13 Specification ID: **HDD13**
- Type : SSD  
Capacity : 1920  
Interface : 6Gb/s  
Speed : 85K – 95k RIO  
Size : 2.5
- 5.14 Specification ID: **HDD14**
- Type : SSD  
Capacity : 1920  
Interface : 6Gb/s  
Speed : 85K – 95k RIO  
Size : 3.5

- 5.15 Specification ID: **HDD15**
- Type : SSD  
Capacity : 3840  
Interface : 6Gb/s  
Speed : 85K – 95k RIO  
Size : 2.5

## 6 **LAPTOP**

- 6.1 Specification ID: **LAP01**
- Brand : -  
Type : Surface Pro  
Size : 12.0 – 12.9(inch)  
Processor : Intel i5  
Cache : 6mb  
RAM : 8 GB - DDR4  
HDD Type : SSD  
HDD Size : 512 GB  
Ethernet : optional  
Bluetooth : v4.2 required  
Wifi : required  
VGA : Optional  
Display Port : Mini Display Port  
HDMI : required  
Audio Ports : optional  
USB : 3no's Minimum  
Color : Black/Grey  
Touch Screen : Optional  
Anti Glare : Required  
Graphic Processor : Optional  
Backlit : Required  
Hyper Treanding : Required  
Turbo Boost : Required  
Multi Card Slot : Required  
Finger Sensor : Optional  
Web Cam : 5.0 Front / 8.0 Rear  
Active Stylus Pen : -  
Warranty : 3 years Minimum  
Accessories : PowerCord+Charger  
Operating System : Windows 10
- 6.2 Specification ID: **LAP02**
- Brand : -  
Type : Surface Pro 6  
Size : 12.0 – 12.9(inch)  
Processor : Intel i5  
Cache : 6mb  
RAM : 8 GB - DDR4  
HDD Type : SSD  
HDD Size : 512 GB  
Ethernet : -  
Bluetooth : v4.2 required  
Wifi : required  
VGA : Optional  
Display Port : Mini Display Port  
HDMI : required

Audio Ports :  
USB : 3no's Minimum  
Color : Black/Grey  
Touch Screen : Optional  
Anti Glare : Required  
Graphic Processor : Optional  
Backlit : Required  
Hyper Treading : Required  
Turbo Boost : Required  
Multi Card Slot : Required  
Finger Sensor : Optional  
Web Cam : 5.0 Front / 8.0 Rear  
Active Stylus Pen : -  
Warranty : 3 years Minimum  
Accessories : PowerCord+Charger  
Operating System : Windows 10 pro

6.3 Specification ID: **LAP03**

Brand : -  
Type : Surface Laptop  
Size : 13.3 – 13.9(inch)  
Processor : Intel i5  
Cache : 6mb  
RAM : 8 GB - DDR4  
HDD Type : SSD  
HDD Size : 512 GB  
Ethernet : -  
Bluetooth : v4.2 required  
Wifi : required  
VGA : Optional  
Display Port : Mini Display Port  
HDMI : required  
Audio Ports :  
USB : 3no's Minimum  
Color : Black/Grey  
Touch Screen : Optional  
Anti Glare : Required  
Graphic Processor : Optional  
Backlit : Required  
Hyper Treading : Required  
Turbo Boost : Required  
Multi Card Slot : Required  
Finger Sensor : Optional  
Web Cam : 5.0 Front / 8.0 Rear  
Active Stylus Pen : -  
Warranty : 3 years Minimum  
Accessories : PowerCord+Charger  
Operating System : Windows 10

6.4 Specification ID: **LAP04**

Brand : -  
Type : Surface Laptop  
Size : 13.3 – 13.9(inch)  
Processor : Intel i5  
Cache : 6mb  
RAM : 8 GB - DDR4  
HDD Type : SSD

HDD Size : 512 GB  
Ethernet : -  
Bluetooth : v4.2 required  
Wifi : required  
VGA : Optional  
Display Port : Mini Display Port  
HDMI : required  
Audio Ports :  
USB : 3no's Minimum  
Color : Black/Grey  
Touch Screen : Optional  
Anti Glare : Required  
Graphic Processor : Optional  
Backlit : Required  
Hyper Treading : Required  
Turbo Boost : Required  
Multi Card Slot : Required  
Finger Sensor : Optional  
Web Cam : 5.0 Front / 8.0 Rear  
Active Stylus Pen : -  
Warranty : 3 years Minimum  
Accessories : PowerCord+Charger  
Operating System : Windows 10 pro

6.5 Specification ID: **LAP05**

Brand : -  
Type : Thin and Light  
Size : 13.3 – 13.9(inch)  
Processor : Intel i5  
Cache : 6mb  
RAM : 8 GB - DDR4  
HDD Type : SATA  
HDD Size : 512 GB  
Ethernet : optional  
Bluetooth : v4.2 required  
Wifi : required  
VGA : Optional  
Display Port : Optional  
HDMI : required  
Audio Ports :  
USB : 3no's Minimum  
Color : Black/Grey  
Touch Screen : Optional  
Anti Glare : Required  
Graphic Processor : Optional  
Backlit : Required  
Hyper Treading : Required  
Turbo Boost : Required  
Multi Card Slot : Required  
Finger Sensor : Optional  
Web Cam : Required  
Active Stylus Pen : -  
Warranty : 3 years Minimum  
Accessories : PowerCord+Charger  
Operating System : Open Source

6.6 Specification ID: **LAP06**

Brand : -  
Type : Thin and Light  
Size : 13.3 – 13.9(inch)  
Processor : Intel i5  
Cache : 6mb  
RAM : 8 GB - DDR4  
HDD Type : SSD  
HDD Size : 512 GB  
Ethernet : optional  
Bluetooth : v4.2 required  
Wifi : required  
VGA : Optional  
Display Port : Optional  
HDMI : required  
Audio Ports :  
USB : 3no's Minimum  
Color : Black/Grey  
Touch Screen : Optional  
Anti Glare : Required  
Graphic Processor : Optional  
Backlit : Required  
Hyper Treading : Required  
Turbo Boost : Required  
Multi Card Slot : Required  
Finger Sensor : Optional  
Web Cam : Required  
Active Stylus Pen : -  
Warranty : 3 years Minimum  
Accessories : PowerCord+Charger  
Operating System : Open Source

6.7 Specification ID: **LAP07**

Brand : -  
Type : 2 in 1  
Size : 13.3 – 13.9(inch)  
Processor : Intel i5  
Cache : 6mb  
RAM : 8 GB - DDR4  
HDD Type : SATA  
HDD Size : 512 GB  
Ethernet : optional  
Bluetooth : v4.2 required  
Wifi : required  
VGA : Optional  
Display Port : Optional  
HDMI : required  
Audio Ports :  
USB : 3no's Minimum  
Color : Black/Grey  
Touch Screen : Required  
Anti Glare : Required  
Graphic Processor : Optional  
Backlit : Required  
Hyper Treading : Required  
Turbo Boost : Required  
Multi Card Slot : Required

Finger Sensor : Optional  
Web Cam : Required  
Active Stylus Pen : yes  
Warranty : 3 years Minimum  
Accessories : PowerCord+Charger  
Operating System : Open Source

6.8 Specification ID: **LAP08**

Brand : -  
Type : 2 in 1  
Size : 13.3 – 13.9(inch)  
Processor : Intel i5  
Cache : 6mb  
RAM : 8 GB - DDR4  
HDD Type : SSD  
HDD Size : 512 GB  
Ethernet : optional  
Bluetooth : v4.2 required  
Wifi : required  
VGA : Optional  
Display Port : Optional  
HDMI : required  
Audio Ports :  
USB : 3no's Minimum  
Color : Black/Grey  
Touch Screen : Required  
Anti Glare : Required  
Graphic Processor : Optional  
Backlit : Required  
Hyper Treading : Required  
Turbo Boost : Required  
Multi Card Slot : Required  
Finger Sensor : Optional  
Web Cam : Required  
Active Stylus Pen : yes  
Warranty : 3 years Minimum  
Accessories : PowerCord+Charger  
Operating System : Open Source

6.9 Specification ID: **LAP09**

Brand : -  
Type : Thin and Light  
Size : 14.0 – 14.9(inch)  
Processor : Intel i5  
Cache : 6mb  
RAM : 8 GB - DDR4  
HDD Type : SATA  
HDD Size : 1024 GB  
Ethernet : optional  
Bluetooth : v4.2 required  
Wifi : required  
VGA : Optional  
Display Port : Optional  
HDMI : required  
Audio Ports :  
USB : 3no's Minimum  
Color : Black/Grey

Touch Screen : Optional  
Anti Glare : Required  
Graphic Processor : Optional  
Backlit : Required  
Hyper Treading : Required  
Turbo Boost : Required  
Multi Card Slot : Required  
Finger Sensor : Optional  
Web Cam : Required  
Active Stylus Pen : -  
Warranty : 3 years Minimum  
Accessories : PowerCord+Charger  
Operating System : Open Source

6.10 Specification ID: **LAP10**

Brand : -  
Type : Thin and Light  
Size : 14.0 – 14.9(inch)  
Processor : Intel i5  
Cache : 6mb  
RAM : 8 GB - DDR4  
HDD Type : SSD  
HDD Size : 1024 GB  
Ethernet : optional  
Bluetooth : v4.2 required  
Wifi : required  
VGA : Optional  
Display Port : Optional  
HDMI : required  
Audio Ports :  
USB : 3no's Minimum  
Color : Black/Grey  
Touch Screen : Optional  
Anti Glare : Required  
Graphic Processor : Optional  
Backlit : Required  
Hyper Treading : Required  
Turbo Boost : Required  
Multi Card Slot : Required  
Finger Sensor : Optional  
Web Cam : Required  
Active Stylus Pen : -  
Warranty : 3 years Minimum  
Accessories : PowerCord+Charger  
Operating System : Open Source

6.11 Specification ID: **LAP11**

Brand : -  
Type : 2 in 1  
Size : 14.0 – 14.9(inch)  
Processor : Intel i5  
Cache : 6mb  
RAM : 8 GB - DDR4  
HDD Type : SATA  
HDD Size : 1024 GB  
Ethernet : optional  
Bluetooth : v4.2 required

Wifi : required  
VGA : Optional  
Display Port : Optional  
HDMI : required  
Audio Ports :  
USB : 3no's Minimum  
Color : Black/Grey  
Touch Screen : Required  
Anti Glare : Required  
Graphic Processor : Optional  
Backlit : Required  
Hyper Treading : Required  
Turbo Boost : Required  
Multi Card Slot : Required  
Finger Sensor : Optional  
Web Cam : Required  
Active Stylus Pen : yes  
Warranty : 3 years Minimum  
Accessories : PowerCord+Charger  
Operating System : Open Source

6.12 Specification ID: **LAP12**

Brand : -  
Type : 2 in 1  
Size : 14.0 – 14.9(inch)  
Processor : Intel i5  
Cache : 6mb  
RAM : 8 GB - DDR4  
HDD Type : SSD  
HDD Size : 1024 GB  
Ethernet : optional  
Bluetooth : v4.2 required  
Wifi : required  
VGA : Optional  
Display Port : Optional  
HDMI : required  
Audio Ports :  
USB : 3no's Minimum  
Color : Black/Grey  
Touch Screen : Optional  
Anti Glare : Required  
Graphic Processor : Optional  
Backlit : Required  
Hyper Treading : Required  
Turbo Boost : Required  
Multi Card Slot : Required  
Finger Sensor : Optional  
Web Cam : Required  
Active Stylus Pen : yes  
Warranty : 3 years Minimum  
Accessories : PowerCord+Charger  
Operating System : Open Source

6.13 Specification ID: **LAP13**

Brand : -  
Type : Business  
Size : 14.0 – 14.9(inch)



Processor : Intel i5  
 Cache : 6mb  
 RAM : 8 GB - DDR4  
 HDD Type : SATA  
 HDD Size : 1024 GB  
 Ethernet : required  
 Bluetooth : v4.2 required  
 Wifi : required  
 VGA : Optional  
 Display Port : Optional  
 HDMI : required  
 Audio Ports :  
 USB : 3no's Minimum  
 Color : Black/Grey  
 Touch Screen : Optional  
 Anti Glare : Required  
 Graphic Processor : Optional  
 Backlit : Required  
 Hyper Treading : Required  
 Turbo Boost : Required  
 Multi Card Slot : Required  
 Finger Sensor : Optional  
 Web Cam : Required  
 Active Stylus Pen : -  
 Warranty : 3 years Minimum  
 Accessories : PowerCord+Charger  
 Operating System : Open Source

6.14 Specification ID: **LAP14**

Brand : -  
 Type : Business  
 Size : 14.0 – 14.9(inch)  
 Processor : Intel i5  
 Cache : 6mb  
 RAM : 8 GB - DDR4  
 HDD Type : SSD  
 HDD Size : 1024 GB  
 Ethernet : required  
 Bluetooth : v4.2 required  
 Wifi : required  
 VGA : Optional  
 Display Port : Optional  
 HDMI : required  
 Audio Ports :  
 USB : 3no's Minimum  
 Color : Black/Grey  
 Touch Screen : Optional  
 Anti Glare : Required  
 Graphic Processor : Optional  
 Backlit : Required  
 Hyper Treading : Required  
 Turbo Boost : Required  
 Multi Card Slot : Required  
 Finger Sensor : Optional  
 Web Cam : Required  
 Active Stylus Pen : -  
 Warranty : 3 years Minimum

Accessories : PowerCord+Charger  
 Operating System : Open Source

6.15 Specification ID: **LAP15**

Brand : -  
 Type : Laptop  
 Size : 14.0 – 14.9(inch)  
 Processor : Intel i5  
 Cache : 6mb  
 RAM : 8 GB - DDR4  
 HDD Type : SATA  
 HDD Size : 1024 GB  
 Ethernet : required  
 Bluetooth : v4.2 required  
 Wifi : required  
 VGA : Optional  
 Display Port : Optional  
 HDMI : required  
 Audio Ports :  
 USB : 3no's Minimum  
 Color : Black/Grey  
 Touch Screen : Optional  
 Anti Glare : Required  
 Graphic Processor : Optional  
 Backlit : Required  
 Hyper Treading : Required  
 Turbo Boost : Required  
 Multi Card Slot : Required  
 Finger Sensor : Optional  
 Web Cam : Required  
 Active Stylus Pen : -  
 Warranty : 3 years Minimum  
 Accessories : PowerCord+Charger  
 Operating System : Open Source

6.16 Specification ID: **LAP16**

Brand : -  
 Type : Laptop  
 Size : 14.0 – 14.9(inch)  
 Processor : Intel i5  
 Cache : 6mb  
 RAM : 8 GB - DDR4  
 HDD Type : SSD  
 HDD Size : 1024 GB  
 Ethernet : required  
 Bluetooth : v4.2 required  
 Wifi : required  
 VGA : Optional  
 Display Port : Optional  
 HDMI : required  
 Audio Ports :  
 USB : 3no's Minimum  
 Color : Black/Grey  
 Touch Screen : Optional  
 Anti Glare : Required  
 Graphic Processor : Optional  
 Backlit : Required

Hyper Treading : Required  
Turbo Boost : Required  
Multi Card Slot : Required  
Finger Sensor : Optional  
Web Cam : Required  
Active Stylus Pen : -  
Warranty : 3 years Minimum  
Accessories : PowerCord+Charger  
Operating System : Open Source

6.17 Specification ID: **LAP17**

Brand : -  
Type : Thin and Light  
Size : 15.0 – 15.9(inch)  
Processor : Intel i5  
Cache : 6mb  
RAM : 8 GB - DDR4  
HDD Type : SATA  
HDD Size : 1024 GB  
Ethernet : required  
Bluetooth : v4.2 required  
Wifi : required  
VGA : Optional  
Display Port : Optional  
HDMI : required  
Audio Ports :  
USB : 3no's Minimum  
Color : Black/Grey  
Touch Screen : Optional  
Anti Glare : Required  
Graphic Processor : Optional  
Backlit : Required  
Hyper Treading : Required  
Turbo Boost : Required  
Multi Card Slot : Required  
Finger Sensor : Optional  
Web Cam : Required  
Active Stylus Pen : -  
Warranty : 3 years Minimum  
Accessories : PowerCord+Charger  
Operating System : Open Source

6.18 Specification ID: **LAP18**

Brand : -  
Type : Thin and Light  
Size : 15.0 – 15.9(inch)  
Processor : Intel i5  
Cache : 6mb  
RAM : 8 GB - DDR4  
HDD Type : SSD  
HDD Size : 1024 GB  
Ethernet : required  
Bluetooth : v4.2 required  
Wifi : required  
VGA : Optional  
Display Port : Optional  
HDMI : required

Audio Ports :  
USB : 3no's Minimum  
Color : Black/Grey  
Touch Screen : Optional  
Anti Glare : Required  
Graphic Processor : Optional  
Backlit : Required  
Hyper Treading : Required  
Turbo Boost : Required  
Multi Card Slot : Required  
Finger Sensor : Optional  
Web Cam : Required  
Active Stylus Pen : -  
Warranty : 3 years Minimum  
Accessories : PowerCord+Charger  
Operating System : Open Source

6.19 Specification ID: **LAP19**

Brand : -  
Type : 2 in 1  
Size : 15.0 – 15.9(inch)  
Processor : Intel i5  
Cache : 6mb  
RAM : 8 GB - DDR4  
HDD Type : SATA  
HDD Size : 1024 GB  
Ethernet : required  
Bluetooth : v4.2 required  
Wifi : required  
VGA : Optional  
Display Port : Optional  
HDMI : required  
Audio Ports :  
USB : 3no's Minimum  
Color : Black/Grey  
Touch Screen : Required  
Anti Glare : Required  
Graphic Processor : Optional  
Backlit : Required  
Hyper Treading : Required  
Turbo Boost : Required  
Multi Card Slot : Required  
Finger Sensor : Optional  
Web Cam : Required  
Active Stylus Pen : yes  
Warranty : 3 years Minimum  
Accessories : PowerCord+Charger  
Operating System : Open Source

6.20 Specification ID: **LAP20**

Brand : -  
Type : 2 in 1  
Size : 15.0 – 15.9(inch)  
Processor : Intel i5  
Cache : 6mb  
RAM : 8 GB - DDR4  
HDD Type : SSD

HDD Size : 1024 GB  
Ethernet : required  
Bluetooth : v4.2 required  
Wifi : required  
VGA : Optional  
Display Port : Optional  
HDMI : required  
Audio Ports :  
USB : 3no's Minimum  
Color : Black/Grey  
Touch Screen : Required  
Anti Glare : Required  
Graphic Processor : Optional  
Backlit : Required  
Hyper Treading : Required  
Turbo Boost : Required  
Multi Card Slot : Required  
Finger Sensor : Optional  
Web Cam : Required  
Active Stylus Pen : yes  
Warranty : 3 years Minimum  
Accessories : PowerCord+Charger  
Operating System : Open Source

6.21 Specification ID: **LAP21**

Brand : -  
Type : Business  
Size : 15.0 – 15.9(inch)  
Processor : Intel i7  
Cache : 6mb  
RAM : 8 GB - DDR4  
HDD Type : SATA  
HDD Size : 1024 GB  
Ethernet : required  
Bluetooth : v4.2 required  
Wifi : required  
VGA : Optional  
Display Port : Optional  
HDMI : required  
Audio Ports :  
USB : 3no's Minimum  
Color : Black/Grey  
Touch Screen : Optional  
Anti Glare : Required  
Graphic Processor : Optional  
Backlit : Required  
Hyper Treading : Required  
Turbo Boost : Required  
Multi Card Slot : Required  
Finger Sensor : Optional  
Web Cam : Required  
Active Stylus Pen : -  
Warranty : 3 years Minimum  
Accessories : PowerCord+Charger  
Operating System : Open Source

6.22 Specification ID: **LAP22**

Brand : -  
Type : Business  
Size : 15.0 – 15.9(inch)  
Processor : Intel i7  
Cache : 6mb  
RAM : 8 GB - DDR4  
HDD Type : SSD  
HDD Size : 1024 GB  
Ethernet : required  
Bluetooth : v4.2 required  
Wifi : required  
VGA : Optional  
Display Port : Optional  
HDMI : required  
Audio Ports :  
USB : 3no's Minimum  
Color : Black/Grey  
Touch Screen : Optional  
Anti Glare : Required  
Graphic Processor : Optional  
Backlit : Required  
Hyper Treading : Required  
Turbo Boost : Required  
Multi Card Slot : Required  
Finger Sensor : Optional  
Web Cam : Required  
Active Stylus Pen : -  
Warranty : 3 years Minimum  
Accessories : PowerCord+Charger  
Operating System : Open Source

6.23 Specification ID: **LAP23**

Brand : -  
Type : Laptop  
Size : 15.0 – 15.9(inch)  
Processor : Intel i7  
Cache : 6mb  
RAM : 8 GB - DDR4  
HDD Type : SATA  
HDD Size : 1024 GB  
Ethernet : required  
Bluetooth : v4.2 required  
Wifi : required  
VGA : Optional  
Display Port : Optional  
HDMI : required  
Audio Ports :  
USB : 3no's Minimum  
Color : Black/Grey  
Touch Screen : Optional  
Anti Glare : Required  
Graphic Processor : required with 4G  
Backlit : Required  
Hyper Treading : Required  
Turbo Boost : Required  
Multi Card Slot : Required

Finger Sensor : Optional  
Web Cam : Required  
Active Stylus Pen : -  
Warranty : 3 years Minimum  
Accessories : PowerCord+Charger  
Operating System : Open Source

6.24 Specification ID: **LAP24**

Brand : -  
Type : Laptop  
Size : 15.0 – 15.9(inch)  
Processor : Intel i7  
Cache : 6mb  
RAM : 8 GB - DDR4  
HDD Type : SSD  
HDD Size : 1024 GB  
Ethernet : required  
Bluetooth : v4.2 required  
Wifi : required  
VGA : Optional  
Display Port : Optional  
HDMI : required  
Audio Ports :  
USB : 3no's Minimum  
Color : Black/Grey  
Touch Screen : Optional  
Anti Glare : Required  
Graphic Processor : requied with 4G  
Backlit : Required  
Hyper Treading : Required  
Turbo Boost : Required  
Multi Card Slot : Required  
Finger Sensor : Optional  
Web Cam : Required  
Active Stylus Pen : -  
Warranty : 3 years Minimum  
Accessories : PowerCord+Charger  
Operating System : Open Source

6.25 Specification ID: **LAP25**

Brand : -  
Type : Workstaion  
Size : 16.0 – 17.9(inch)  
Processor : Intel Quad Core  
Cache : 6mb  
RAM : 8 GB - DDR4  
HDD Type : SATA  
HDD Size : 1024 GB  
Ethernet : required  
Bluetooth : v4.2 required  
Wifi : required  
VGA : Optional  
Display Port : Optional  
HDMI : required  
Audio Ports :  
USB : 3no's Minimum  
Color : Black/Grey

Touch Screen : Optional  
Anti Glare : Required  
Graphic Processor : requied with 8G  
Backlit : Required  
Hyper Treading : Required  
Turbo Boost : Required  
Multi Card Slot : Required  
Finger Sensor : Optional  
Web Cam : Required  
Active Stylus Pen : -  
Warranty : 3 years Minimum  
Accessories : PowerCord+Charger  
Operating System : Open Source

6.26 Specification ID: **LAP26**

Brand : -  
Type : Workstaion  
Size : 16.0 – 17.9(inch)  
Processor : Intel Quad Core  
Cache : 6mb  
RAM : 8 GB - DDR4  
HDD Type : SSD  
HDD Size : 1024 GB  
Ethernet : required  
Bluetooth : v4.2 required  
Wifi : required  
VGA : Optional  
Display Port : Optional  
HDMI : required  
Audio Ports :  
USB : 3no's Minimum  
Color : Black/Grey  
Touch Screen : Optional  
Anti Glare : Required  
Graphic Processor : requied with 8G  
Backlit : Required  
Hyper Treading : Required  
Turbo Boost : Required  
Multi Card Slot : Required  
Finger Sensor : Optional  
Web Cam : Required  
Active Stylus Pen : -  
Warranty : 3 years Minimum  
Accessories : PowerCord+Charger  
Operating System : Open Source

6.27 Specification ID: **LAP27**

Brand : -  
Type : Business  
Size : 15.0 – 15.9(inch)  
Processor : AMD Ryzen 7  
Cache : 6mb  
RAM : 8 GB - DDR4  
HDD Type : SATA  
HDD Size : 1024 GB  
Ethernet : required  
Bluetooth : v4.2 required

Wifi : required  
VGA : Optional  
Display Port : Optional  
HDMI : required  
Audio Ports :  
USB : 3no's Minimum  
Color : Black/Grey  
Touch Screen : Optional  
Anti Glare : Required  
Graphic Processor : Optional  
Backlit : Required  
Hyper Treading : Required  
Turbo Boost : Required  
Multi Card Slot : Required  
Finger Sensor : Optional  
Web Cam : Required  
Active Stylus Pen : -  
Warranty : 3 years Minimum  
Accessories : PowerCord+Charger  
Operating System : Open Source

6.28 Specification ID: **LAP28**

Brand : -  
Type : Business  
Size : 15.0 – 15.9(inch)  
Processor : AMD Ryzen 7  
Cache : 6mb  
RAM : 8 GB - DDR4  
HDD Type : SSD  
HDD Size : 1024 GB  
Ethernet : required  
Bluetooth : v4.2 required  
Wifi : required  
VGA : Optional  
Display Port : Optional  
HDMI : required  
Audio Ports :  
USB : 3no's Minimum  
Color : Black/Grey  
Touch Screen : Optional  
Anti Glare : Required  
Graphic Processor : Optional  
Backlit : Required  
Hyper Treading : Required  
Turbo Boost : Required  
Multi Card Slot : Required  
Finger Sensor : Optional  
Web Cam : Required  
Active Stylus Pen : -  
Warranty : 3 years Minimum  
Accessories : PowerCord+Charger  
Operating System : Open Source

6.29 Specification ID: **LAP29**

Brand : -  
Type : Laptop  
Size : 15.0 – 15.9(inch)

Processor : AMD Ryzen 5  
Cache : 6mb  
RAM : 8 GB - DDR4  
HDD Type : SATA  
HDD Size : 1024 GB  
Ethernet : required  
Bluetooth : v4.2 required  
Wifi : required  
VGA : Optional  
Display Port : Optional  
HDMI : required  
Audio Ports :  
USB : 3no's Minimum  
Color : Black/Grey  
Touch Screen : Optional  
Anti Glare : Required  
Graphic Processor : Optional  
Backlit : Required  
Hyper Treading : Required  
Turbo Boost : Required  
Multi Card Slot : Required  
Finger Sensor : Optional  
Web Cam : Required  
Active Stylus Pen : -  
Warranty : 3 years Minimum  
Accessories : PowerCord+Charger  
Operating System : Open Source

6.30 Specification ID: **LAP30**

Brand : -  
Type : Laptop  
Size : 15.0 – 15.9 (inch)  
Processor : AMD Ryzen 5  
Cache : 6mb  
RAM : 8 GB - DDR4  
HDD Type : SSD  
HDD Size : 1024 GB  
Ethernet : required  
Bluetooth : v4.2 required  
Wifi : required  
VGA : Optional  
Display Port : Optional  
HDMI : required  
Audio Ports :  
USB : 3no's Minimum  
Color : Black/Grey  
Touch Screen : Optional  
Anti Glare : Required  
Graphic Processor : Optional  
Backlit : Required  
Hyper Treading : Required  
Turbo Boost : Required  
Multi Card Slot : Required  
Finger Sensor : Optional  
Web Cam : Required  
Active Stylus Pen : -  
Warranty : 3 years Minimum  
Accessories : PowerCord+Charger  
Operating System : Open Source

<b>7</b>	<b><u>MONITOR</u></b>	7.5	Specification ID: <b>MON05</b>
7.1	Specification ID: <b>MON01</b>  Brand : Undefined Type : LED Size : 22(inch) Resolution : default VGA : required HDMI : required Audio Ports : Optional USB : 3no's Minimum Color : Black Touch Screen : Undefined Accessories : Cable+Connector+Power Cord	7.5	Brand : Undefined Type : LED Size : 30(inch) Resolution : default VGA : required HDMI : required Audio Ports : Optional USB : 3no's Minimum Color : Black Touch Screen : Undefined Accessories : Cable+Connector+Power Cord
7.2	Specification ID: <b>MON02</b>  Brand : Undefined Type : LED Size : 24(inch) Resolution : default VGA : required HDMI : required Audio Ports : Optional USB : 3no's Minimum Color : Black Touch Screen : Undefined Accessories : Cable+Connector+Power Cord	7.6	Specification ID: <b>MON06</b>  Brand : Undefined Type : LED Size : 34(inch) Resolution : default VGA : required HDMI : required Audio Ports : Optional USB : 3no's Minimum Color : Black Touch Screen : Undefined Accessories : Cable+Connector+Power Cord
7.3	Specification ID: <b>MON03</b>  Brand : Undefined Type : LED Size : 27(inch) Resolution : default VGA : required HDMI : required Audio Ports : Optional USB : 3no's Minimum Color : Black Touch Screen : Undefined Accessories : Cable+Connector+Power Cord	7.7	Specification ID: <b>MON07</b>  Brand : Undefined Type : LED Size : 37(inch) Resolution : default VGA : required HDMI : required Audio Ports : Optional USB : 3no's Minimum Color : Black Touch Screen : Undefined Accessories : Cable+Connector+Power Cord
7.4	Specification ID: <b>MON04</b>  Brand : Undefined Type : LED Size : 27(inch) Resolution : default VGA : required HDMI : required Audio Ports : Optional USB : 3no's Minimum Color : Black Touch Screen : Undefined Accessories : Cable+Connector+Power Cord	<b>8</b>	<b><u>RAM</u></b>
		8.1	Specification ID: <b>RAM01</b>  Type : DDR3 Speed : 1066 Size : 4 GB
		8.2	Specification ID: <b>RAM02</b>  Type : DDR3 Speed : 1066 Size : 8GB

8.3	Specification ID: <b>RAM03</b>  Type : DDR3 Speed : 1333 Size : 4GB	8.13	Specification ID: <b>RAM13</b>  Type : DDR4 Speed : 2666 Size : 8GB
8.4	Specification ID: <b>RAM04</b>  Type : DDR3 Speed : 1333 Size : 8GB	8.14	Specification ID: <b>RAM14</b>  Type : DDR4 Speed : 2666 Size : 16GB
8.5	Specification ID: <b>RAM05</b>  Type : DDR3 Speed : 1600 Size : 4GB	8.15	Specification ID: <b>RAM15</b>  Type : DDR4 Speed : 2666 Size : 32GB
8.6	Specification ID: <b>RAM06</b>  Type : DDR3 Speed : 1600 Size : 8GB	8.16	Specification ID: <b>RAM16</b>  Type : DDR4 Speed : 2800 Size : 8GB
8.7	Specification ID: <b>RAM07</b>  Type : DDR4 Speed : 1333 Size : 8GB	8.17	Specification ID: <b>RAM17</b>  Type : DDR4 Speed : 2800 Size : 16GB
8.8	Specification ID: <b>RAM08</b>  Type : DDR4 Speed : 1333 Size : 16GB	8.18	Specification ID: <b>RAM18</b>  Type : DDR4 Speed : 2800 Size : 32GB
8.9	Specification ID: <b>RAM09</b>  Type : DDR4 Speed : 1333 Size : 32GB	8.19	Specification ID: <b>RAM19</b>  Type : DDR4 Speed : 2933 Size : 8GB
8.10	Specification ID: <b>RAM10</b>  Type : DDR4 Speed : 2133 Size : 8GB	8.20	Specification ID: <b>RAM20</b>  Type : DDR4 Speed : 2933 Size : 16GB
8.11	Specification ID: <b>RAM11</b>  Type : DDR4 Speed : 2133 Size : 16GB	8.21	Specification ID: <b>RAM21</b>  Type : DDR4 Speed : 2933 Size : 32GB
8.12	Specification ID: <b>RAM12</b>  Type : DDR4 Speed : 2133 Size : 32GB	8.22	Specification ID: <b>RAM22</b>  Type : DDR4 Speed : 4133 Size : 8GB

8.23	<p>Specification ID: <b>RAM23</b></p> <p>Type : DDR4 Speed : 4133 Size : 16GB</p>	<p>PCI x16 : 4 nos USB 3.x : 3 nos DVD R/W : required Keyboard/Mouse : required (usb) Hyper Threading : required Turbo Boost : required</p>
8.24	<p>Specification ID: <b>RAM24</b></p> <p>Type : DDR4 Speed : 4133 Size : 32GB</p>	<p>Management Port : required with Licence Raid (0,1,5 and 10) : required with 2GB Cache Dual Power- HotPlug : required Easy Install Rail Kit : required Operating System : Centos Warranty : 5 Years Warranty</p>
8.25	<p>Specification ID: <b>RAM25</b></p> <p>Type : DDR4 Speed : Size : 64GB</p>	
<b>9</b>	<b><u>SERVER</u></b>	
9.1	<p>Specification ID: <b>SRV01</b></p> <p>Model : Tower No. of Processor &amp; Socket : 2 Processor : Intel Xeon Gold 6246 No. of Core : 12 Clock Speed : 3.3Ghz or Higher Chipset : C6xx or Higher Cache : 25 GB RAM : 32+32 GB HDD Size : 1000 HDD Type : SAS or More Network : 2 x Gigabit PCI x16 : 4 nos USB 3.x : 3 nos DVD R/W : required Keyboard/Mouse : required (usb) Hyper Threading : required Turbo Boost : required Management Port : required with Licence Raid (0,1,5 and 10) : required with 2GB Cache Dual Power- HotPlug : required Easy Install Rail Kit : required Operating System : Centos Warranty : 3 Years Warranty</p>	<p>9.3 Specification ID: <b>SRV03</b></p> <p>Model : Rack No. of Processor &amp; Socket : 2 Processor : Intel Xeon Gold 6254 No. of Core : 18 Clock Speed : 3.1Ghz or Higher Chipset : C6xx or Higher Cache : 25 GB RAM : 32+32 GB HDD Size : 1000 HDD Type : SAS or More Network : 2 x Gigabit PCI x16 : 4 nos USB 3.x : 3 nos DVD R/W : required Keyboard/Mouse : required (usb) Hyper Threading : required Turbo Boost : required Management Port : required with Licence Raid (0,1,5 and 10) : required with 2GB Cache Dual Power- HotPlug : required Easy Install Rail Kit : required Operating System : Centos Warranty : 3 Years Warranty</p>
9.2	<p>Specification ID: <b>SRV02</b></p> <p>Model : Tower No. of Processor &amp; Socket : 2 Processor : Intel Xeon Gold 6244 No. of Core : 8 Clock Speed : 3.6Ghz or Higher Chipset : C6xx or Higher Cache : 25 GB RAM : 32+32 GB HDD Size : 1000 HDD Type : SAS or More Network : 2 x Gigabit</p>	<p>9.4 Specification ID: <b>SRV04</b></p> <p>Model : Rack No. of Processor &amp; Socket : 2 Processor : Intel Xeon Gold 6246 No. of Core : 12 Clock Speed : 3.3Ghz or Higher Chipset : C6xx or Higher Cache : 25 GB RAM : 32+32 GB HDD Size : 1000 HDD Type : SAS or More Network : 2 x Gigabit PCI x16 : 4 nos USB 3.x : 3 nos DVD R/W : required Keyboard/Mouse : required (usb) Hyper Threading : required Turbo Boost : required Management Port : required with Licence</p>



Raid (0,1,5 and 10) : required with 2GB Cache  
Dual Power- HotPlug : required  
Easy Install Rail Kit : required  
Operating System : Centos  
Warranty : 3 Years Warranty

9.5 Specification ID: **SRV05**

Model : Tower  
No. of Processor & Socket : 2  
Processor : Intel Xeon Gold 6244  
No. of Core : 8  
Clock Speed : 3.6Ghz or Higher  
Chipset : C6xx or Higher  
Cache : 25 GB  
RAM : 32+32 GB  
HDD Size : 1000  
HDD Type : SAS or More  
Network : 2 x Gigabit  
PCI x16 : 4 nos  
USB 3.x : 3 nos  
DVD R/W : required  
Keyboard/Mouse : required (usb)  
Hyper Threading : required  
Turbo Boost : required  
Management Port : required with Licence  
Raid (0,1,5 and 10) : required with 2GB Cache  
Dual Power- HotPlug : required  
Easy Install Rail Kit : required  
Operating System : Centos  
Warranty : 5 Years Warranty

9.6 Specification ID: **SRV06**

Model : Rack  
No. of Processor & Socket : 2  
Processor : Intel Xeon Gold 6242  
No. of Core : 16  
Clock Speed : 2.8Ghz or Higher  
Chipset : C6xx or Higher  
Cache : 22 GB  
RAM : 32+32 GB  
HDD Size : 1000  
HDD Type : SAS or More  
Network : 2 x Gigabit  
PCI x16 : 4 nos  
USB 3.x : 3 nos  
DVD R/W : required  
Keyboard/Mouse : required (usb)  
Hyper Threading : required  
Turbo Boost : required  
Management Port : required with Licence  
Raid (0,1,5 and 10) : required with 2GB Cache  
Dual Power- HotPlug : required  
Easy Install Rail Kit : required  
Operating System : Centos  
Warranty : 3 Years Warranty

9.7 Specification ID: **SRV07**

Model : Rack  
No. of Processor & Socket : 2  
Processor : Intel Xeon Gold 6234  
No. of Core : 8  
Clock Speed : 3.4Ghz or Higher  
Chipset : C6xx or Higher  
Cache : 25 GB  
RAM : 32+32 GB  
HDD Size : 1000  
HDD Type : SAS or More  
Network : 2 x Gigabit  
PCI x16 : 4 nos  
USB 3.x : 3 nos  
DVD R/W : required  
Keyboard/Mouse : required (usb)  
Hyper Threading : required  
Turbo Boost : required  
Management Port: required with Licence  
Raid (0,1,5 and 10): required with 2GB Cache  
Dual Power- Hot Plug : required  
Easy Install Rail Kit : required  
Operating System : Centos  
Warranty : 3 Years Warranty

9.8 Specification ID: **SRV08**

Model : Rack  
No. of Processor & Socket : 2  
Processor : Intel Xeon Gold 6226  
No. of Core : 12  
Clock Speed : 2.7Ghz or Higher  
Chipset : C6xx or Higher  
Cache : 19 GB  
RAM : 32+32 GB  
HDD Size : 1000  
HDD Type : SAS or More  
Network : 2 x Gigabit  
PCI x16 : 4 nos  
USB 3.x : 3 nos  
DVD R/W : required  
Keyboard/Mouse : required (usb)  
Hyper Threading : required  
Turbo Boost : required  
Management Port : required with Licence  
Raid (0,1,5 and 10) : required with 2GB Cache  
Dual Power- HotPlug : required  
Easy Install Rail Kit : required  
Operating System : Centos  
Warranty : 4 Years Warranty

9.9 Specification ID: **SRV09**

Model : Rack  
No. of Processor & Socket : 2  
Processor : Intel Xeon Platinum 8268  
No. of Core : 24  
Clock Speed : 2.9Ghz or Higher

Chipset : C6xx or Higher  
 Cache : 36 GB  
 RAM : 32+32 GB  
 HDD Size : 1000  
 HDD Type : SAS or More  
 Network : 2 x Gigabit  
 PCI x16 : 4 nos  
 USB 3.x : 3 nos  
 DVD R/W : required  
 Keyboard/Mouse : required (usb)  
 Hyper Threading : required  
 Turbo Boost : required  
 Management Port : required with Licence  
 Raid (0,1,5 and 10) : required with 2GB Cache  
 Dual Power- HotPlug : required  
 Easy Install Rail Kit : required  
 Operating System : Centos  
 Warranty : 3 Years Warranty

9.10 Specification ID: **SRV10**

Model : Rack  
 No. of Processor & Socket : 2  
 Processor : Intel Xeon Platinum 8270  
 No. of Core : 26  
 Clock Speed : 2.7Ghz or Higher  
 Chipset : C6xx or Higher  
 Cache : 36 GB  
 RAM : 32+32 GB  
 HDD Size : 1000  
 HDD Type : SAS or More  
 Network : 2 x Gigabit  
 PCI x16 : 4 nos  
 USB 3.x : 3 nos  
 DVD R/W : required  
 Keyboard/Mouse : required (usb)  
 Hyper Threading : required  
 Turbo Boost : required  
 Management Port : required with Licence  
 Raid (0,1,5 and 10) : required with 2GB Cache  
 Dual Power- HotPlug : required  
 Easy Install Rail Kit : required  
 Operating System : Centos  
 Warranty : 3 Years Warranty

9.11 Specification ID: **SRV11**

Model : Rack  
 No. of Processor & Socket : 2  
 Processor : Intel Xeon Platinum 8280  
 No. of Core : 28  
 Clock Speed : 2.7Ghz or Higher  
 Chipset : C6xx or Higher  
 Cache : 39 GB  
 RAM : 32+32 GB  
 HDD Size : 1000  
 HDD Type : SAS or More  
 Network : 2 x Gigabit  
 PCI x16 : 4 nos

USB 3.x : 3 nos  
 DVD R/W : required  
 Keyboard/Mouse : required (usb)  
 Hyper Threading : required  
 Turbo Boost : required  
 Management Port : required with Licence  
 Raid (0,1,5 and 10) : required with 2GB Cache  
 Dual Power- HotPlug : required  
 Easy Install Rail Kit : required  
 Operating System : Centos  
 Warranty : 3 Years Warranty

9.12 Specification ID: **SRV12**

Model : Rack  
 No. of Processor & Socket : 2  
 Processor : Intel Xeon Silver 4215  
 No. of Core : 8  
 Clock Speed : 2.5Ghz or Higher  
 Chipset : C6xx or Higher  
 Cache : 11 GB  
 RAM : 32+32 GB  
 HDD Size : 1000  
 HDD Type : SAS or More  
 Network : 2 x Gigabit  
 PCI x16 : 4 nos  
 USB 3.x : 3 nos  
 DVD R/W : required  
 Keyboard/Mouse : required (usb)  
 Hyper Threading : required  
 Turbo Boost : required  
 Management Port : required with Licence  
 Raid (0,1,5 and 10) : required with 2GB Cache  
 Dual Power- HotPlug : required  
 Easy Install Rail Kit : required  
 Operating System : Centos  
 Warranty : 3 Years Warranty

9.13 Specification ID: **SRV13**

Model : Rack  
 No. of Processor & Socket : 2  
 Processor : AMD EPYC 7272  
 No. of Core : 12  
 Clock Speed : 2.9Ghz or Higher  
 Chipset : Equivalent  
 Cache : 64 GB  
 RAM : 32+32 GB  
 HDD Size : 1000  
 HDD Type : SAS or More  
 Network : 2 x Gigabit  
 PCI x16 : 4 nos  
 USB 3.x : 3 nos  
 DVD R/W : required  
 Keyboard/Mouse : required (usb)  
 Hyper Threading : required  
 Turbo Boost : required  
 Management Port : required with Licence  
 Raid (0,1,5 and 10) : required with 2GB Cache

Dual Power- HotPlug : required  
Easy Install Rail Kit : required  
Operating System : Centos  
Warranty : 3 Years Warranty

9.14 Specification ID: **SRV14**

Model : Rack  
No. of Processor & Socket : 2  
Processor : AMD EPYC 7302  
No. of Core : 16  
Clock Speed : 3.0Ghz or Higher  
Chipset : Equivalent  
Cache : 128 GB  
RAM : 32+32 GB  
HDD Size : 1000  
HDD Type : SAS or More  
Network : 2 x Gigabit  
PCI x16 : 4 nos  
USB 3.x : 3 nos  
DVD R/W : required  
Keyboard/Mouse : required (usb)  
Hyper Threading : required  
Turbo Boost : required  
Management Port : required with Licence  
Raid (0,1,5 and 10) : required with 2GB Cache  
Dual Power- HotPlug : required  
Easy Install Rail Kit : required  
Operating System : Centos  
Warranty : 3 Years Warranty

9.15 Specification ID: **SRV15**

Model : Rack  
No. of Processor & Socket : 2  
Processor : AMD EPYC 7402  
No. of Core : 24  
Clock Speed : 2.8Ghz or Higher  
Chipset : Equivalent  
Cache : 128 GB  
RAM : 32+32 GB  
HDD Size : 1000  
HDD Type : SAS or More  
Network : 2 x Gigabit  
PCI x16 : 4 nos  
USB 3.x : 3 nos  
DVD R/W : required  
Keyboard/Mouse : required (usb)  
Hyper Threading : required  
Turbo Boost : required  
Management Port : required with Licence  
Raid (0,1,5 and 10) : required with 2GB Cache  
Dual Power- HotPlug : required  
Easy Install Rail Kit : required  
Operating System : Centos  
Warranty : 3 Years Warranty

**10** **TABLET**

10.1 Specification ID: **TAB01**

Brand : Standard  
TYPE : Tablet  
Screen Size (inch) : 9 and above  
Processor (equivalent) : 1.8Ghz + 1.6Ghz  
Qualcomm/Dragon/Kirin/Exynos Latest  
RAM : >=4GB  
Internal Memory (GB) : 64  
External Memory (GB) : 128  
Power : 6000Mah  
Ethernet : Wifi / Wifi + Calling  
Bluetooth > 4.2 : required  
Wifi compatible : Yes  
Audio ports : Yes  
USB/USB-C 3.x/OTG : Yes  
Color : Any  
Touch Screen: Yes  
Battery Cell : Replaceable  
Grollia Glass : Yes  
Backlit : Optional  
Multimedia : Yes  
Finger Print Sensor/Touch ID : Yes  
Web Cam : 8MP Back / 5MP Front are higher  
Active Stylus Pen : Option  
Warranty : 3 years  
Accessories (required) : Charger + Carry Case  
OS : Latest Android

10.2 Specification ID: **TAB02**

Brand : Standard  
TYPE : Tablet  
Screen Size (inch) : 8.0 to 8.9  
Processor (equivalent) : 1.8Ghz + 1.6Ghz  
Qualcomm/Dragon/Kirin/Exynos Latest  
RAM : >=4GB  
Internal Memory (GB) : 64  
External Memory (GB) : 128  
Power : 6000Mah  
Ethernet : Wifi / Wifi + Calling  
Bluetooth > 4.2 : required  
Wifi compatible : Yes  
Audio ports : Yes  
USB/USB-C 3.x/OTG : yes  
Color : Any  
Touch Screen : Yes  
Battery Cell : replaceable  
Grollia Glass : yes  
Backlit : Optional  
Multimedia : Yes  
Finger Print Sensor/Touch ID : Yes  
Web Cam : 8MP Back / 5MP Front are higher  
Active Stylus Pen : Option  
Warranty : 3 years  
Accessories (required) : Charger + Carry Case  
OS : Latest Android

## 11 WORKSTATION

### 11.1 Specification ID: **WRK01**

Model : Tower  
No. of Processor & Socket : 1  
Processor : AMD Ryzen Threadripper 2970WX  
No. of Core : 24  
Clock Speed : 3.0Ghz or Higher  
Chipset : Equivalent  
Cache : 64 GB  
RAM : 32GB GB  
HDD Size : 1000 GB  
HDD Type : SATA or More  
Network : 2 x Gigabit  
PCI x16 : 4 nos  
PCI x8 : 2 nos  
USB 3.x : 4 nos  
DVD R/W : required  
Keyboard/Mouse : required (usb)  
Hyper Threading : required  
Turbo Boost : required  
Raid (0,1,5) : required with 2GB Cache  
Dual Power- HotPlug : 800W  
Easy Install Rail Kit : Tower to Rack Conversion Kit  
Operating System : Centos  
Warranty : 3 Years Warranty

### 11.2 Specification ID: **WRK02**

Model : Tower  
No. of Processor & Socket : 1  
Processor : AMD Ryzen Threadripper 2990WX  
No. of Core : 32  
Clock Speed : 3.0 Ghz or Higher  
Chipset : X399  
Cache : 64 GB  
RAM : 32GB GB  
HDD Size : 1000 GB  
HDD Type : SATA or More  
Network : 2 x Gigabit  
PCI x16 : 4 nos  
PCI x8 : 2 nos  
USB 3.x : 4 nos  
DVD R/W : required  
Keyboard/Mouse : required (usb)  
Hyper Threading : required  
Turbo Boost : required  
Raid (0,1,5) : required with 2GB Cache  
Dual Power- HotPlug : 800W  
Easy Install Rail Kit : Tower to Rack Conversion Kit  
Operating System : Centos  
Warranty : 3 Years Warranty

### 11.3 Specification ID: **WRK03**

Model : Tower  
No. of Processor & Socket : 1  
Processor : Intel Xeon W-3223

No. of Core : 8  
Clock Speed : 3.5Ghz or Higher  
Chipset : C4xx or Higher  
Cache : 17 GB  
RAM : 32GB GB  
HDD Size : 1000 GB  
HDD Type : SATA or More  
Network : 2 x Gigabit  
PCI x16 : 4 nos  
PCI x8 : 2 nos  
USB 3.x : 4 nos  
DVD R/W : required  
Keyboard/Mouse : required (usb)  
Hyper Threading : required  
Turbo Boost : required  
Raid (0,1,5) : required with 2GB Cache  
Dual Power- HotPlug : 800W  
Easy Install Rail Kit : Tower to Rack Conversion Kit  
Operating System : Centos  
Warranty : 3 Years Warranty

### 11.4 Specification ID: **WRK04**

Model : Tower  
No. of Processor & Socket : 1  
Processor : Intel Xeon W-3225  
No. of Core : 8  
Clock Speed : 3.7Ghz or Higher  
Chipset : C4xx or Higher  
Cache : 17 GB  
RAM : 32GB GB  
HDD Size : 1000 GB  
HDD Type : SATA or More  
Network : 2 x Gigabit  
PCI x16 : 4 nos  
PCI x8 : 2 nos  
USB 3.x : 4 nos  
DVD R/W : required  
Keyboard/Mouse : required (usb)  
Hyper Threading : required  
Turbo Boost : required  
Raid (0,1,5) : required with 2GB Cache  
Dual Power- HotPlug : 800W  
Easy Install Rail Kit : Tower to Rack Conversion Kit  
Operating System : Centos  
Warranty : 3 Years Warranty

### 11.5 Specification ID: **WRK05**

Model : Tower  
No. of Processor & Socket : 1  
Processor : Intel Xeon W-3235  
No. of Core : 12  
Clock Speed : 3.2Ghz or Higher  
Chipset : C4xx or Higher  
Cache : 19 GB  
RAM : 32GB GB  
HDD Size : 1000 GB  
HDD Type : SATA or More

Network : 2 x Gigabit  
 PCI x16 : 4 nos  
 PCI x8 : 2 nos  
 USB 3.x : 4 nos  
 DVD R/W : required  
 Keyboard/Mouse : required (usb)  
 Hyper Threading : required  
 Turbo Boost : required  
 Raid (0,1,5) : required with 2GB Cache  
 Dual Power- HotPlug : 800W  
 Easy Install Rail Kit : Tower to Rack Conversion Kit  
 Operating System : Centos  
 Warranty : 3 Years Warranty

11.6 Specification ID: **WRK06**

Model : Tower  
 No. of Processor & Socket : 1  
 Processor : Intel Xeon W-3245  
 No. of Core : 16  
 Clock Speed : 3.2Ghz or Higher  
 Chipset : C4xx or Higher  
 Cache : 22 GB  
 RAM : 32GB GB  
 HDD Size : 1000 GB  
 HDD Type : SATA or More  
 Network : 2 x Gigabit  
 PCI x16 : 4 nos  
 PCI x8 : 2 nos  
 USB 3.x : 4 nos  
 DVD R/W : required  
 Keyboard/Mouse : required (usb)  
 Hyper Threading : required  
 Turbo Boost : required  
 Raid (0,1,5) : required with 2GB Cache  
 Dual Power- HotPlug : 800W  
 Easy Install Rail Kit : Tower to Rack Conversion Kit  
 Operating System : Centos  
 Warranty : 3 Years Warranty

11.7 Specification ID: **WRK07**

Model : Tower  
 No. of Processor & Socket : 1  
 Processor : Intel Xeon W-3265  
 No. of Core : 24  
 Clock Speed : 2.70Ghz or Higher  
 Chipset : C4xx or Higher  
 Cache : 33 GB  
 RAM : 32GB GB  
 HDD Size : 1000 GB  
 HDD Type : SATA or More  
 Network : 2 x Gigabit  
 PCI x16 : 4 nos  
 PCI x8 : 2 nos  
 USB 3.x : 4 nos  
 DVD R/W : required  
 Keyboard/Mouse : required (usb)  
 Hyper Threading : required

Turbo Boost : required  
 Raid (0,1,5) : required with 2GB Cache  
 Dual Power- HotPlug : 800W  
 Easy Install Rail Kit : Tower to Rack Conversion Kit  
 Operating System : Centos  
 Warranty : 3 Years Warranty

11.8 Specification ID: **WRK08**

Model : Tower  
 No. of Processor & Socket : 1  
 Processor : Intel Xeon W-3275  
 No. of Core : 28  
 Clock Speed : 2.5Ghz or Higher  
 Chipset : C4xx or Higher  
 Cache : 39 GB  
 RAM : 32GB GB  
 HDD Size : 1000 GB  
 HDD Type : SATA or More  
 Network : 2 x Gigabit  
 PCI x16 : 4 nos  
 PCI x8 : 2 nos  
 USB 3.x : 4 nos  
 DVD R/W : required  
 Keyboard/Mouse : required (usb)  
 Hyper Threading : required  
 Turbo Boost : required  
 Raid (0,1,5) : required with 2GB Cache  
 Dual Power- HotPlug : 800W  
 Easy Install Rail Kit : Tower to Rack Conversion Kit  
 Operating System : Centos  
 Warranty : 3 Years Warranty

11.9 Specification ID: **WRK09**

Model : Tower  
 No. of Processor & Socket : 1  
 Processor : Intel Xeon Gold 6209U  
 No. of Core : 20  
 Clock Speed : 2.10Ghz or Higher  
 Chipset : C6xx or Higher  
 Cache : 28 GB  
 RAM : 32GB GB  
 HDD Size : 1000 GB  
 HDD Type : SATA or More  
 Network : 2 x Gigabit  
 PCI x16 : 4 nos  
 PCI x8 : 2 nos  
 USB 3.x : 4 nos  
 DVD R/W : required  
 Keyboard/Mouse : required (usb)  
 Hyper Threading : required  
 Turbo Boost : required  
 Raid (0,1,5) : required with 2GB Cache  
 Dual Power- HotPlug : 800W  
 Easy Install Rail Kit : Tower to Rack Conversion Kit  
 Operating System : Centos  
 Warranty : 3 Years Warranty

**12 SPARES**

**LIST - 2**

- |  |  |
|--|--|
| <p>12.1 Specification ID: <b>SPA01</b></p> <p>Category : Server/WorkStation<br/>Item : Network Card<br/>Description : 1Gb Quad Port<br/>Warranty : 3+ Years</p>  | <p>12.8 Specification ID: <b>SPA08</b><br/>Category : Server/WorkStation<br/>Item : Cable<br/>Description : 3Meter InfiniBand<br/>Warranty : 3+ Years<br/>Note : with Accessories</p>  |
| <p>12.2 Specification ID: <b>SPA02</b></p> <p>Category: Server/WorkStation<br/>Item: Network Card<br/>Description: 10Gbe Dual Port, T-Base<br/>Warranty : 3+ Years</p>   | <p>12.9 Specification ID: <b>SPA09</b></p> <p>Category : Server/WorkStation<br/>Item : Cable<br/>Description : 5Meter InfiniBand<br/>Warranty : 3+ Years<br/>Note : with Accessories</p>   |
| <p>12.3 Specification ID: <b>SPA03</b></p> <p>Category: Server/WorkStation<br/>Item : Network Card<br/>Description : 10Gbe Dual Port, SFP<br/>Warranty : 3+ Years<br/>Note : With suitable Transceiver</p>                               | <p>12.10 Specification ID: <b>SPA10</b></p> <p>Category: Server/WorkStation<br/>Item : HDD<br/>Description : 24SFF Disk Enclosure<br/>Warranty : 3+ Years<br/>Note : with Necessary Accessories</p>                                    |
| <p>12.4 Specification ID: <b>SPA04</b></p> <p>Category : Server/WorkStation<br/>Item : Network Card<br/>Description : 16Gb Dual Port, Fibrechannel Host Bus<br/>Adpater<br/>Warranty : 3+ Years<br/>Note : With suitable Transceiver</p> | <p>12.11 Specification ID: <b>SPA11</b></p> <p>Category : Server/WorkStation<br/>Item : HDD<br/>Description : 12LFF Disk Enclosure<br/>Warranty : 3+ Years<br/>Note : with Necessary Accessories</p>                                   |
| <p>12.5 Specification ID: <b>SPA05</b></p> <p>Category : Server/WorkStation<br/>Item : Network Card<br/>Description : 100Gb InfiniBand EDR<br/>Warranty : 3+ Years<br/>Note : with Accessories</p>                                       | <p>12.12 Specification ID: <b>SPA12</b></p> <p>Category : Server/WorkStation<br/>Item : Power – SMPS<br/>Description : 100V - 240V AC Common Slot Power<br/>Supplies<br/>Warranty : 3+ Years<br/>Note : with Necessary Accessories</p> |
| <p>12.6 Specification ID: <b>SPA06</b></p> <p>Category : Server/WorkStation<br/>Item : Network Card<br/>Description : 100Gb InfiniBand OPA<br/>Warranty : 3+ Years<br/>Note : with Accessories</p>                                       | <p>12.13 Specification ID: <b>SPA13</b></p> <p>Category : Server<br/>Item : Raid Card<br/>Description : 2G Cache Raid should support 0,1,5,6<br/>and 10<br/>Warranty : 3+ Years<br/>Note : Supported (0,1,5,6 and 10)</p>              |
| <p>12.7 Specification ID: <b>SPA07</b></p> <p>Category : Server/WorkStation<br/>Item : Cable<br/>Description : 2Meter InfiniBand<br/>Warranty : 3+ Years<br/>Note : with Accessories</p>   | <p>12.14 Specification ID: <b>SPA14</b></p> <p>Category : Apple<br/>Item : Pencil<br/>Description : 1st Gen<br/>Warranty : 3+ Years</p>  |

- 12.15 Specification ID: **SPA15**  
 Category : Apple  
 Item : Pencil  
 Description : 2nd Gen  
 Warranty : 3+ Years
- 12.16 Specification ID: **SPA16**  
 Category : Apple  
 Item : Pencil Tip  
 Description : For 1st and 2nd Gen Pencil  
 Warranty : 3+ Years
- 12.17 Specification ID: **SPA17**  
 Category : Apple  
 Item : Cable  
 Description : 2Meters Lightning to USB Cable 3.0  
 Warranty : 3+ Years  
 Note : Must connect will all ipads
- 12.18 Specification ID: **SPA18**  
 Category : Apple  
 Item : Cable  
 Description : 2Meters USB-C Charge Cable  
 Warranty : 3+ Years  
 Note : Must connect will all ipads
- 12.19 Specification ID: **SPA19**  
 Category : Apple  
 Item : Card Reader  
 Description : USB-C to SD Card Reader  
 Warranty : 3+ Years
- 12.20 Specification ID: **SPA20**  
 Category : Apple  
 Item : Cable  
 Description : Apple Lightning to VGA Adapter  
 Warranty : 3+ Years  
 Note : Must connect will all imac / Mac pro /Mac book
- 12.21 Specification ID: **SPA21**  
 Category : Apple  
 Item : Cable  
 Description : Apple Lightning to HDMI Adapter  
 Warranty : 3+ Years
- 12.22 Specification ID: **SPA22**  
 Category : Apple  
 Item : Cable  
 Description : 30pin Apple Apple Dock Connector to VGA Adapter  
 Warranty : 3+ Years
- 12.23 Specification ID: **SPA23**  
 Category : Apple  
 Item : Cable  
 Description : 30pin Apple Dock Connector to HDMI Adapter  
 Warranty : 3+ Years
- 12.24 Specification ID: **SPA24**  
 Category : Apple  
 Item : Cable  
 Description : Apple HDMI to DVI Adapter  
 Warranty : 3+ Years
- 12.25 Specification ID: **SPA25**  
 Category : Apple  
 Item : Power Adapter  
 Description : 12w Power Adapter for (Ipad Family)  
 Warranty : 3+ Years
- 12.26 Specification ID: **SPA26**  
 Category : Apple  
 Item : Power Adapter  
 Description : 61W Power Adapter for (Ipad Family)  
 Warranty : 3+ Years
- 12.27 Specification ID: **SPA27**  
 Category : Apple  
 Item : Power Adapter  
 Description : 30W Power Adapter for (Ipad Family)  
 Warranty : 3+ Years
- 12.28 Specification ID: **SPA28**  
 Category : Apple  
 Item : Power Adapter  
 Description : 5W Power Adapter for (Ipad Family)  
 Warranty : 3+ Years
- 12.29 Specification ID: **SPA29**  
 Category : Apple  
 Item : Power Adapter  
 Description : 87W Power Adapter for (Ipad Family)  
 Warranty : 3+ Years
- 12.30 Specification ID: **SPA30**  
 Category : Apple  
 Item : smart keyboard  
 Description : Ipad Family(Ipad / ipad / ipad pro/ipad mini/ipad Air)  
 Warranty : 3+ Years  
 Note : Must be support in all ipads.

- 12.31 Specification ID: **SPA31**  
 Category : Apple  
 Item : Smart Folio  
 Description : For Ipad Family with ranging Screen Size  
 Warranty : 3+ Years  
 Note : Must be support in all ipads.
- 12.32 Specification ID: **SPA32**  
 Category : Laptop  
 Item : Cable  
 Description : MS Mini DisplayPort to HDMI Adapter  
 Warranty : 3+ Years
- 12.33 Specification ID: **SPA33**  
 Category : Laptop  
 Item : Cable  
 Description : MS Mini DisplayPort to VGA Adapter  
 Warranty : 3+ Years
- 12.34 Specification ID: **SPA34**  
 Category : Laptop  
 Item : Network Card  
 Description : MS Ethernet Adapter  
 Warranty : 3+ Years  
 Note : External
- 12.35 Specification ID: **SPA35**  
 Category : Laptop  
 Item : Surface  
 Description : Microsoft Surface Dock Station Pro/Pro 3/ Pro 4/Pro 6/Laptop/Laptop2/Book /Book2/Go  
 Warranty : 3+ Years
- 12.36 Specification ID: **SPA36**  
 Category : Laptop  
 Item : Surface  
 Description : Microsoft Surface 65W Power Supply  
 Warranty : 3+ Years
- 12.37 Specification ID: **SPA37**  
 Category : Laptop  
 Item : Surface  
 Description : Surface Pro Pen  
 Warranty : 3+ Years
- 12.38 Specification ID: **SPA38**  
 Category : Surface  
 Item : Surface  
 Description : Srfc Arc Mouse Commercial Black  
 Warranty : 3+ Years
- 12.39 Specification ID: **SPA39**  
 Category : Surface  
 Item : Surface  
 Description : Surface Pro Pen Tip  
 Warranty : 3+ Years
- 12.40 Specification ID: **SPA40**  
 Category : Surface  
 Item : Surface  
 Description : Ms Ethernet Adapter  
 Warranty : 3+ Years
- 12.41 Specification ID: **SPA41**  
 Category : Surface  
 Item : Surface  
 Description : Surface Mobile Mouse-Black  
 Warranty : 3+ Years
- 12.42 Specification ID: **SPA42**  
 Category : Surface  
 Item : Surface  
 Description : Spro Sigma Type cover Platinnium  
 Warranty : 3+ Years
- 12.43 Specification ID: **SPA43**  
 Category : Surface  
 Item : Surface  
 Description : Spro Type cover Black  
 Warranty : 3+ Years
- 12.44 Specification ID: **SPA44**  
 Category : Surface  
 Item : Surface  
 Description : Microsoft Surface Dock Station  
 Warranty : 3+ Years
- 12.45 Specification ID: **SPA45**  
 Category : Surface  
 Item : Surface  
 Description : Srfc Arc Mouse Light Gray  
 Warranty : 3+ Years
- 12.46 Specification ID: **SPA46**  
 Category : Surface  
 Item : Surface  
 Description : Surface pro Pen Silver  
 Warranty : 3+ Years



- 12.47 Specification ID: **SPA47**  
 Category : Surface  
 Item : Surface  
 Description : Microsoft Surface 44W Power Supply  
 Warranty : 3+ Years
- 12.48 Specification ID: **SPA48**  
 Category : Surface  
 Item : Surface  
 Description : Microsoft Surface 102W Power Supply  
 Warranty : 3+ Years
- 12.49 Specification ID: **SPA49**  
 Category : Surface  
 Item : Surface  
 Description : Book2 USB-C to VGA Adapter  
 Warranty : 3+ Years
- 12.50 Specification ID: **SPA50**  
 Category : Surface  
 Item : Surface  
 Description : Book2 USB-C to HDMI Adapter  
 Warranty : 3+ Years
- 12.51 Specification ID: **SPA51**  
 Category : Surface  
 Item : Surface  
 Description : Surf Go Sig Typecover Platinnium  
 Warranty : 3+ Years
- 12.52 Specification ID: **SPA52**  
 Category : Surface  
 Item : Surface  
 Description : Surf Go Typecover Black  
 Warranty : 3+ Years
- 12.53 Specification ID: **SPA53**  
 Category : Surface  
 Item : Surface  
 Description : Surface Mobile Mouse - Burgandy  
 Warranty : 3+ Years
- 12.54 Specification ID: **SPA54**  
 Category : Network  
 Item : Router  
 Description : LAN Ports : 4 WAN Ports : 1 Data Signal  
 Rate • 2.4 GHz - Up to 300 Mbps and above • 5 GHz -  
 Up to 866 Mbps and above • Ethernet - 10/100/1000  
 Mbps (auto-negotiation)  
 Warranty : 3+ Years  
 Note : Router, 3 Detachable Antennas, Ethernet  
 Cable, Power Adapter
- 12.55 Specification ID: **SPA55**  
 Category : Network  
 Item : Wireless Adapter / Wi-Fi Dongle  
 Description : 5GHZ wireless speeds, 802.11b, 802.11g,  
 802.11n USB 3.0  
 Warranty : 3+ Years  
 Note : Resource CD (if any) Frequency needs to be  
 matched with User Appliance.
- 12.56 Specification ID: **SPA56**  
 Category : Network  
 Item : Patch Cord  
 Description : 2 Meters CAT6E  
 Warranty : -
- 12.57 Specification ID: **SPA57**  
 Category : HDD  
 Item : External  
 Description : 2TB, USB 3.0, Slim Device  
 Warranty : 3+ Years

**TECHNICAL BID****I VENDOR ELIGIBILITY CRITERIA**

<b>S.No.</b>	<b>Description</b>	<b>Compliance (Yes / No)</b>	<b>Page No.</b>	<b>Remarks</b>
<b>1</b>	(i) The OEM should have 10 years' experience in manufacturing of computers and computer related items as called for in the tender. (Necessary proof to be submitted).			
	(ii) The business turnover of the OEM should be more than Rupees Ten Crores per year (each in the last 5 years). Last 5 years' financial statements / certificates issued by Chartered Accountant should be submitted as proof.			
	(iii) The OEM should be / should have been a registered Rate Contract vendor for the supply of computer and computer related items with Government organizations / Public Sector Undertakings / Reputed Organizations. Proof of contract should be submitted.			
	(iv) The OEM should authorize not more than 2 Premium Partners to supply and provide service for the items quoted in this tender. Authorization Form as per <b>Annexure D</b> issued by OEM authorizing the premium partners should be submitted.			
<b>2</b>	(i) The OEM authorized premium partner should have experience in executing the similar rate contract in Government organizations / Public Sector Undertakings / Reputed Organizations.			
	(ii) The business turnover of the Premium Partner should not be less than Rupees One Crore per year for the last 3 years. Last 3 years' financial statements / certificates issued by Chartered Accountant should be submitted as proof			
	(iii) The Premium Partner of the OEM should have an Office at Chennai with experts / specialists to handle installation, configuration and to solve all types of issues in time.			

**II TECHNICAL COMPLIANCE SHEET**

**LIST 1**

**1. ALL IN ONE**

Sl. No.	Spec ID	Specification (ALL IN ONE)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
1	AIO1	1 X Intel core i3-8300 Quad Core(4 Core/8MB/4T/3.7GHz/62~65W) 1 X H370 chipset or higher 1 X 8GB DDR4 2666MHz - 3/4 additional Memory Bank 1 X 1TB HDD 7.2K RPM 1 X USB Keyboard 1 X USB Mouse 1 X DVD RW 1 X VGA, HDMI, DP 1 X 21.0 – 24.0 inch Display 3 Years Support				
2	AIO2	1 X Intel core i5-8500 (6 Core/9MB/6T/3.0 GHz,Turbo 4.10GHz/62~65W) 1 X H370 Chipset or Higher 1 X 8GB DDR4 2666 MHz - 3/4 additional Memory Bank 1 X 1TB HDD 7.2K RPM 1 X USB Keyboard 1 X USB Mouse 1 X DVD RW 1 X VGA,HDMI,DP 1 X 21.0 – 24.0 inch Display 3 Years Support				

Sl. No.	Spec ID	Specification (ALL IN ONE)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
3	AIO3	1 X Intel core i7-8700 (6 Core/12MB/12T/3.2 GHz upto 4.6 GHz/62~65W) 1 X H370 Chipset or Higher 1 X 8GB DDR4 2666 - 3/4 additional Memory Bank 1 X 1TB HDD 7.2K 1 X USB Keyboard 1 X USB Mouse 1 X DVD RW 1 X VGA,HDMI,DP 1 X 21.0 – 24.0 inch Display 3 Years Support				
4	AIO4	1 X AMD Ryzen™ 7 3700X 1 X X570 Chipset Equivalent or Higher 1 X 8GB DDR4 - 3/4 additional Memory Bank 1 X 1TB HDD 7.2K RPM 1 X DVD RW 1 X USB Keyboard 1 X USB Mouse 1 X VGA, HDMI, DP 1 X 21.0 – 24.0 inch Display 3 Years Support				
5	AIO5	1 X AMD Ryzen™ Threadripper™ 2950X 1 X X470 Chipset Equivalent or Higher 1 X 8GB DDR4 - 3/4 additional Memory Bank 1 X 1TB HDD 7.2K RPM 1 X DVD RW 1 X USB Keyboard 1 X USB Mouse 1 X VGA, HDMI, DP 1 X 21.0 – 24.0 inch Display 3 Years Support				

**2 APPLE (BRAND ITEMS)**

Sl. No.	Spec ID	Specification (APPLE)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
1	APP01	Brand : APPLE Type : MacBook Size : 12.0 – 12.9 (inch) Retine 4k : Retine 5k : Processor 9th Gen : Intel i5 Cache : required Ram Size : 8GB - DDR4 Ram Speed : 2133 HDD Type : SSD HDD Size : 512 GB Ethernet : required Bluetooth : required required Wifi : required Thunderbolt : v3 Mini Display Port : Mini Display Port Audio Ports : required USB/USB-C : required Color : unspecified Touch Screen : - Battery Life : - Anti-Glare : required Graphic Processor : Default Blacklit : required Hyper Threading : required Turbo Boost : required Multi Card Slot : required Finger Print Sensor/Touch ID : required Web Cam : 5.0 Front / 8.0 Rear Active Stylus Pen : - Warranty : 3 years and above Accessories : PowerCord+Charger+KickStand Operating System : Catalina(10.15)				

Sl. No.	Spec ID	Specification (APPLE)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
2	APP02	Brand : APPLE Type : MacBook Air Size : 13.3 (inch) Retine 4k : Retine 5k : Processor 9th Gen : Intel i5 Cache : 4MB L3 Ram Size : 8GB - DDR4 Ram Speed : 2133 HDD Type : SSD HDD Size : 512 GB Ethernet : - Bluetooth : 4.2v required Wifi : IEEE 802.11a/b/g/n Thunderbolt : v3 Mini Display Port : required Audio Ports : required USB/USB-C : required Color : unspecified Touch Screen : - Battery Life : - Anti-Glare : - Graphic Processor : Intel UHD Graphics 617 Blacklit : required Hyper Threading : required Turbo Boost : required Multi Card Slot : - Finger Print Sensor/Touch ID : required Web Cam : 720p Face Time HD Active Stylus Pen : - Warranty : 3 years and above Accessories : PowerCord+Charger Operating System : Catalina(10.15)				

Sl. No.	Spec ID	Specification (APPLE)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
3	APP03	Brand : APPLE Type : MacBook Pro Size : 13.3 (inch) Retine 4k : Retine 5k : Processor 9th Gen : Intel i5 Cache : 4MB L3 Ram Size : 8GB - DDR4 Ram Speed : 2133 HDD Type : SSD HDD Size : 512 GB Ethernet : - Bluetooth : 4.2v required Wifi : IEEE 802.11a/b/g/n Thunderbolt : v3 Mini Display Port : required Audio Ports : required USB/USB-C : required Color : unspecified Touch Screen : - Battery Life : - Anti-Glare : - Graphic Processor : Intel Iris Plus Graphics 640 Blacklit : required Hyper Threading : required Turbo Boost : required Multi Card Slot : - Finger Print Sensor/Touch ID : required Web Cam : 720p Face Time HD Active Stylus Pen : - Warranty : 3 years and above Accessories : PowerCord+Charger Operating System : Catalina(10.15)				

Sl. No.	Spec ID	Specification (APPLE)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
4	APP04	Brand : APPLE Type : MacBook Pro Size : 15.4 (inch) Retine 4k : Retine 5k : Processor 9th Gen : Intel i5 Cache : 6MB L3 Ram Size : 8GB - DDR4 Ram Speed : 2133 HDD Type : SSD HDD Size : 512 GB Ethernet : - Bluetooth : 4.2v required Wifi : IEEE 802.11a/b/g/n Thunderbolt : v3 Mini Display Port : required Audio Ports : required USB/USB-C : required Color : unspecified Touch Screen : - Battery Life : - Anti-Glare : - Graphic Processor : Intel Iris Plus Graphics 640 Blacklit : required Hyper Threading : required Turbo Boost : required Multi Card Slot : - Finger Print Sensor/Touch ID : required Web Cam : 720p Face Time HD Active Stylus Pen : - Warranty : 3 years and above Accessories : PowerCord+Charger Operating System : Catalina(10.15)				



Sl. No.	Spec ID	Specification (APPLE)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
5	APP05	Brand : APPLE Type : iMac Size : 21.5 (inch) Retine 4k : Retine 5k : Processor 9th Gen : Intel i5 Cache : 6MB L3 Ram Size : 8GB - DDR4 Ram Speed : 2333 HDD Type : SSD HDD Size : 512 GB Ethernet : required Bluetooth : 4.2v required Wifi : IEEE 802.11a/b/g/n Thunderbolt : - Mini Display Port : required Audio Ports : required USB/USB-C : required Color : unspecified Touch Screen : - Battery Life : - Anti-Glare : - Graphic Processor : Radeon Pro 570X, 575X, or 580X graphics processor Blacklit : - Hyper Threading : required Turbo Boost : required Multi Card Slot : required Finger Print Sensor/Touch ID : - Web Cam : Face Time HD Active Stylus Pen : - Warranty : 3 years and above Accessories : PowerCord+DVDRW Operating System : Catalina(10.15)				

Sl. No.	Spec ID	Specification (APPLE)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
6	APP06	Brand : APPLE Type : iMac Size : 21.5 (inch) Retine 4k : Retine 5k : Processor 9th Gen : Intel i5 Cache : 6MB L3 Ram Size : 8GB - DDR4 Ram Speed : 2333 HDD Type : SSD HDD Size : 512 GB Ethernet : required Bluetooth : 4.2v required Wifi : IEEE 802.11a/b/g/n Thunderbolt : - Mini Display Port : required Audio Ports : required USB/USB-C : required Color : unspecified Touch Screen : - Battery Life : - Anti-Glare : - Graphic Processor : Radeon Pro 570X, 575X, or 580X graphics processor Blacklit : - Hyper Threading : required Turbo Boost : required Multi Card Slot : required Finger Print Sensor/Touch ID : - Web Cam : Face Time HD Active Stylus Pen : - Warranty : 3 years and above Accessories : PowerCord+DVDRW Operating System : Catalina(10.15)				

Sl. No.	Spec ID	Specification (APPLE)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
7	APP07	Brand : APPLE Type : iMac Size : 27 (inch) Retine 4k : Retine 5k : Processor 9th Gen : Intel i7 Cache : 6MB L3 Ram Size : 8GB - DDR4 Ram Speed : 2666 HDD Type : SSD HDD Size : 512 GB Ethernet : required Bluetooth : 4.2v required Wifi : IEEE 802.11a/b/g/n Thunderbolt : - Mini Display Port : required Audio Ports : required USB/USB-C : required Color : unspecified Touch Screen : - Battery Life : - Anti-Glare : - Graphic Processor : Radeon Pro 570X, 575X, or 580X graphics processor Blacklit : - Hyper Threading : required Turbo Boost : required Multi Card Slot : required Finger Print Sensor/Touch ID : - Web Cam : Face Time HD Active Stylus Pen : - Warranty : 3 years and above Accessories : PowerCord+DVDRW Operating System : Catalina(10.15)				

Sl. No.	Spec ID	Specification (APPLE)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
8	APP08	Brand : APPLE Type : iMac Pro Size : 27 (inch) Retine 4k : Retine 5k : Processor 9th Gen : Intel i7 Cache : 6MB L3 Ram Size : 8GB - DDR4 Ram Speed : 2666 HDD Type : SSD HDD Size : 512 GB Ethernet : required Bluetooth : 4.2v required Wifi : IEEE 802.11a/b/g/n Thunderbolt : - Mini Display Port : required Audio Ports : required USB/USB-C : required Color : unspecified Touch Screen : - Battery Life : - Anti-Glare : - Graphic Processor : Radeon Pro 570X, 575X, or 580X graphics processor Blacklit : - Hyper Threading : required Turbo Boost : required Multi Card Slot : required Finger Print Sensor/Touch ID : - Web Cam : Face Time HD Active Stylus Pen : - Warranty : 3 years and above Accessories : PowerCord+DVDRW Operating System : Catalina(10.15)				

Sl. No.	Spec ID	Specification (APPLE)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
9	APP09	Brand : APPLE Type : Mac Pro Size : - (inch) Retine 4k : Retine 5k : Processor 9th Gen : Intel i7 Cache : 12MB Ram Size : 8GB - DDR4 Ram Speed : 2666 HDD Type : SSD HDD Size : 1024 GB Ethernet : required Bluetooth : 4.2v required Wifi : - Thunderbolt : - Mini Display Port : - Audio Ports : required USB/USB-C : required Color : unspecified Touch Screen : - Battery Life : - Anti-Glare : - Graphic Processor : Dual AMD FirePro graphics Blacklit : - Hyper Threading : required Turbo Boost : required Multi Card Slot : required Finger Print Sensor/Touch ID : - Web Cam : - Active Stylus Pen : - Warranty : 3 years and above Accessories : PowerCord+DVDRW(External) Operating System : Catalina(10.15)				

Sl. No.	Spec ID	Specification (APPLE)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
10	APP10	Brand : APPLE Type : Mac Mini Size : - (inch) Retine 4k : Retine 5k : Processor 9th Gen : Intel i5 Cache : required Ram Size : 8GB - DDR4 Ram Speed : 2666 HDD Type : SSD HDD Size : 512 GB Ethernet : required Bluetooth : 4.2v required Wifi : IEEE 802.11a/b/g/n Thunderbolt : - Mini Display Port : - Audio Ports : required USB/USB-C : required Color : unspecified Touch Screen : - Battery Life : - Anti-Glare : - Graphic Processor : Intel UHD graphics 630 Blacklit : - Hyper Threading : required Turbo Boost : required Multi Card Slot : required Finger Print Sensor/Touch ID : - Web Cam : - Active Stylus Pen : Warranty : 3 years and above Accessories : PowerCord+DVDRW(External) Operating System : Catalina(10.15)				

Sl. No.	Spec ID	Specification (APPLE)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
11	APP11	Brand : APPLE Type : iPad Pro Size : 12.9 (inch) Retine 4k : Retine 5k : Processor 9th Gen : A12X Bionic chip Cache : - Ram Size : -GB - DDR4 Ram Speed : - HDD Type : - HDD Size : 512 GB Ethernet : Wi-Fi/Wi-Fi+Cellular Bluetooth : 4.2v required Wifi : IEEE 802.11a/b/g/n Thunderbolt : - Mini Display Port : - Audio Ports : required USB/USB-C : USB-C connector for charging and accessories Color : unspecified Touch Screen : required Battery Life : 10 hours of battery life Anti-Glare : required Graphic Processor : - Blacklit : - Hyper Threading : required Turbo Boost : required Multi Card Slot : required Finger Print Sensor/Touch ID : required Web Cam : 12mp Back + 7mp Front cam Active Stylus Pen : Optional Warranty : 3 years and above Accessories : PowerCord + Headset Operating System : Latest macOS				

Sl. No.	Spec ID	Specification (APPLE)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
12	APP12	Brand : APPLE Type : iPad Pro Size : 11 (inch) Retine 4k : Retine 5k : Processor 9th Gen : A12X Bionic chip Cache : - Ram Size : -GB - DDR4 Ram Speed : - HDD Type : - HDD Size : 512 GB Ethernet : Wi-Fi/Wi-Fi+Cellular Bluetooth : 4.2v required Wifi : IEEE 802.11a/b/g/n Thunderbolt : - Mini Display Port : - Audio Ports : required USB/USB-C : USB-C connector for charging and accessories Color : unspecified Touch Screen : required Battery Life : 10 hours of battery life Anti-Glare : required Graphic Processor : - Blacklit : - Hyper Threading : required Turbo Boost : required Multi Card Slot : required Finger Print Sensor/Touch ID : required Web Cam : 12mp Back + 7mp Front cam Active Stylus Pen : Optional Warranty : 3 years and above Accessories : PowerCord + Headset Operating System : Latest macOS				



Sl. No.	Spec ID	Specification (APPLE)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
13	APP13	Brand : APPLE Type : iPad Air Size : 10.5 (inch) Retine 4k : Retine 5k : Processor 9th Gen : A12X Bionic chip Cache : - Ram Size : -GB - DDR4 Ram Speed : - HDD Type : - HDD Size : 256 GB Ethernet : Wi-Fi/Wi-Fi+Cellular Bluetooth : 4.2v required Wifi : IEEE 802.11a/b/g/n Thunderbolt : -- Mini Display Port : - Audio Ports : required USB/USB-C : USB-C connector for charging and accessories Color : unspecified Touch Screen : required Battery Life : 10 hours of battery life Anti-Glare : required Graphic Processor : - Blacklit : - Hyper Threading : required Turbo Boost : required Multi Card Slot : required Finger Print Sensor/Touch ID : required Web Cam : 8mp Back + 7mp Front cam Active Stylus Pen : Optional Warranty : 3 years and above Accessories : PowerCord + Headset Operating System : Latest macOS				

Sl. No.	Spec ID	Specification (APPLE)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
14	APP14	Brand : APPLE Type : iPad Size : 9.7 (inch) Retine 4k : Retine 5k : Processor 9th Gen : A10 Fusion chip Cache : - Ram Size : -GB - DDR4 Ram Speed : - HDD Type : - HDD Size : 128 GB Ethernet : Wi-Fi/Wi-Fi+Cellular Bluetooth : 4.2v required Wifi : IEEE 802.11a/b/g/n Thunderbolt : - Mini Display Port : - Audio Ports : required USB/USB-C : USB-C connector for charging and accessories Color : unspecified Touch Screen : required Battery Life : 10 hours of battery life Anti-Glare : required Graphic Processor : - Blacklit : - Hyper Threading : required Turbo Boost : required Multi Card Slot : required Finger Print Sensor/Touch ID : required Web Cam : 8MP Back + 1.2MP Face Time Active Stylus Pen : Optional Warranty : 3 years and above Accessories : PowerCord + Headset Operating System : Latest macOS				

Sl. No.	Spec ID	Specification (APPLE)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
15	APP15	Brand : APPLE Type : iPad Mini Size : 7.9 (inch) Retine 4k : Retine 5k : Processor 9th Gen : A12X Bionic chip Cache : - Ram Size : -GB - DDR4 Ram Speed : - HDD Type : - HDD Size : 128 GB Ethernet : Wi-Fi/Wi-Fi+Cellular Bluetooth : 4.2v required Wifi : IEEE 802.11a/b/g/n Thunderbolt : - Mini Display Port : - Audio Ports : required USB/USB-C : USB-C connector for charging and accessories Color : unspecified Touch Screen : required Battery Life : 10 hours of battery life Anti-Glare : required Graphic Processor : - Blacklit : - Hyper Threading : required Turbo Boost : required Multi Card Slot : required Finger Print Sensor/Touch ID : required Web Cam : 8mp Back + 7mp Front cam Active Stylus Pen : Optional Warranty : 3 years and above Accessories : PowerCord + Headset Operating System : Latest macOS				

### 3 DESKTOP

Sl. No.	Spec ID	Specification (DESKTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
1	DSK1	1 X Intel core i3-8300 Quad Core(4 Core/8MB/4T/3.7GHz/62~65W) 1 X H370 chipset or higher 1 X 8GB DDR4 2666MHz - 3/4 additional Memory Bank 1 X 1TB HDD 7.2K RPM 1 X USB Keyboard 1 X USB Mouse 1 X DVD RW 1 X VGA, HDMI, DP 3 Years Support				
2	DSK2	1 X Intel core i5-8500 (6 Core/9MB/6T/3.0 GHz,Turbo 4.10GHz/62~65W) 1 X H370 Chipset or Higher 1 X 8GB DDR4 2666 MHz - 3/4 additional Memory Bank 1 X 1TB HDD 7.2K RPM 1 X USB Keyboard 1 X USB Mouse 1 X DVD RW 1 X VGA,HDMI,DP 3 Years Support				

Sl. No.	Spec ID	Specification (DESKTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
3	DSK3	1 X Intel core i7-8700 (6 Core/12MB/12T/3.2 GHz upto 4.6 GHz/62~65W) 1 X Q370 Chipset or Higher 1 X 8GB DDR4 2666 - 3/4 additional Memory Bank 1 X 1TB HDD 7.2K 1 X USB Keyboard 1 X USB Mouse 1 X DVD RW 1 X VGA,HDMI,DP 3 Years Support				
4	DSK4	1 X Intel Core i9-7900X (8 Core/3.30~4.30 Ghz/13.75MB"L3"/) 1 X Q370 Chipset or Higher 1 X 8GB DDR4 2666 - 3/4 additional Memory Bank 1 X 1TB HDD 7.2K RPM 1 X DVD RW 1 X USB Keyboard 1 X USB Mouse 1 X VGA, HDMI, DP 3 Years Support				
5	DSK5	1 X AMD Ryzen™ 7 3700X 1 X X570 Chipset Equivalent or Higher 1 X 8GB DDR4 - 3/4 additional Memory Bank 1 X 1TB HDD 7.2K RPM 1 X DVD RW 1 X USB Keyboard 1 X USB Mouse 1 X VGA, HDMI, DP 3 Years Support				

Sl. No.	Spec ID	Specification (DESKTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
6	DSK6	1 X AMD Ryzen™ Threadripper™ 2950X 1 X X470 Chipset Equivalent or Higher 1 X 8GB DDR4 - 3/4 additional Memory Bank 1 X 1TB HDD 7.2K RPM 1 X DVD RW 1 X USB Keyboard 1 X USB Mouse 1 X VGA, HDMI, DP 3 Years Support				

#### 4 GRAPHICS CARD

Sl. No.	Spec ID	Specification (GRAPHICS CARD)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
1	GRP01	Category : Graphic Card Brand : NVIDIA GPU Memory : 5 GB GDDR5 Core : CUDA 1024 Chipset : NVIDIA Quadro P2000 Compute Api's : Power Consumption : Operating System : Windows & Linux Warranty : 3+ Years				

Sl. No.	Spec ID	Specification (GRAPHICS CARD)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
2	GRP02	Category : Graphic Card Brand : NVIDIA GPU Memory : 16 GB HBM2 Core : CUDA 5120 Chipset : NVIDIA V100 PCIe Compute Api's : Power Consumption : Operating System : Windows & Linux Warranty : 3+ Years				
3	GRP03	Category : Graphic Card Brand : NVIDIA GPU Memory : 32 GB HBM2 Core : CUDA 5120 Chipset : NVIDIA V100 SXM2 Compute Api's : Power Consumption : Operating System : Windows & Linux Warranty : 3+ Years				
4	GRP04	Category : Graphic Card Brand : NVIDIA GPU Memory : 8 GB Core : CUDA 2304 Chipset : NVIDIA RTX 4000 Compute Api's : Power Consumption : Operating System : Windows & Linux Warranty : 3+ Years				

Sl. No.	Spec ID	Specification (GRAPHICS CARD)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
5	GRP05	Category : Graphic Card Brand : NVIDIA GPU Memory : 16 GB GDDR6 Core : CUDA 3072 Chipset : NVIDIA RTX 5000 Compute Api's : Power Consumption : Operating System : Windows & Linux Warranty : 3+ Years				
6	GRP06	Category : Graphic Card Brand : NVIDIA GPU Memory : 24 GB GDDR6 Core : CUDA 4608 Chipset : NVIDIA RTX 6000 Compute Api's : Power Consumption : Operating System : Windows & Linux Warranty : 3+ Years				
7	GRP07	Category : Graphic Card Brand : NVIDIA GPU Memory : 48 GB GDDR6 Core : CUDA 4608 Chipset : NVIDIA RTX 8000 Compute Api's : Power Consumption : Operating System : Windows & Linux Warranty : 3+ Years				



Sl. No.	Spec ID	Specification (GRAPHICS CARD)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
8	GRP08	Category : Graphic Card Brand : NVIDIA GPU Memory : 32 GB HBM2 Core : CUDA 5120 Chipset : NVIDIA QUADRO GV100 Compute Api's : Power Consumption : Operating System : Windows & Linux Warranty : 3+ Years				
9	GRP09	Category : Graphic Card Brand : NVIDIA GPU Memory : 16 GB HBM2 Core : CUDA 3584 Chipset : NVIDIA Quadro GP100 Compute Api's : Power Consumption : Operating System : Windows & Linux Warranty : 3+ Years				
10	GRP10	Category : Graphic Card Brand : NVIDIA GPU Memory : 24 GB GDDR6 Core : CUDA 4608 Chipset : TITAN RTX Compute Api's : Power Consumption : Operating System : Windows & Linux Warranty : 3+ Years				

Sl. No.	Spec ID	Specification (GRAPHICS CARD)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
11	GRP11	Category : Graphic Card Brand : AMD GPU Memory : 8 GB HBM2 Core : Stream Processors: 3584 Chipset : AMD Radeon Pro WX 8200 Compute Api's : Power Consumption : Operating System : Windows & Linux Warranty : 3+ Years				
12	GRP12	Category : Graphic Card Brand : AMD GPU Memory : 8 GB GDDR5 Core : Stream Processors: 2304 Chipset : AMD Radeon Pro WX 7100 Compute Api's : Power Consumption : Operating System : Windows & Linux Warranty : 3+ Years				
13	GRP13	Category : Graphic Card Brand : AMD GPU Memory : 16GB HBM2 Core : Stream Processors: 4096 Chipset : AMD Radeon Vega Frontier Edition Compute Api's : Power Consumption : Operating System : Windows & Linux Warranty : 3+ Years				

Sl. No.	Spec ID	Specification (GRAPHICS CARD)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
14	GRP14	Category : Graphic Card Brand : AMD GPU Memory : 16 GB HBM2 Core : Stream Processors: 4096 Chipset : Radeon Pro SSG Compute Api's : Power Consumption : Operating System : Windows & Linux Warranty : 3+ Years				
15	GRP15	Category : Graphic Card Brand : AMD GPU Memory : 32 GB GDDR5 Core : Stream Processors: 4608 (2x2304) Chipset : Radeon Pro Duo Compute Api's : Power Consumption : Operating System : Windows & Linux Warranty : 3+ Years				

## 5 HARD DISK

Sl. No.	Spec ID	Specification (HARD DISK)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
1	HDD01	Type : SAS Capacity : 300 Interface : 12Gb/s Speed : 10k Size : 2.5 (inch)				
2	HDD02	Type : SAS Capacity : 300 Interface : 12Gb/s Speed : 15k Size : 2.5(inch)				
3	HDD03	Type : SAS Capacity : 600 Interface : 12Gb/s Speed : 10k Size : 2.5(inch)				
4	HDD04	Type : SAS Capacity : 600 Interface : 12Gb/s Speed : 15k Size : 2.5(inch)				
5	HDD05	Type : SAS Capacity : 900 Interface : 12Gb/s Speed : 10k Size : 2.5(inch)				
6	HDD06	Type : SAS Capacity : 900 Interface : 12Gb/s Speed : 15k Size : 2.5(inch)				

Sl. No.	Spec ID	Specification (HARD DISK)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
7	HDD07	Type : SATA 3 Capacity : 10000 Interface : 6Gb/s Speed : 7.2k Size : 3.5(inch)				
8	HDD08	Type : SATA 3 Capacity : 12000 Interface : 6Gb/s Speed : 7.2k Size : 3.5(inch)				
9	HDD09	Type : SATA 3 Capacity : 10000 Interface : 6Gb/s Speed : 7.2k Size : 2.5(inch)				
10	HDD10	Type : SATA 3 Capacity : 12000 Interface : 6Gb/s Speed : 7.2k Size : 2.5(inch)				
11	HDD11	Type : SSD Capacity : 480 Interface : 6Gb/s Speed : 85K – 95k RIO Size : 2.5(inch)				
12	HDD12	Type : SSD Capacity : 960 Interface : 6Gb/s Speed : 85K – 95k RIO Size : 2.5(inch)				

Sl. No.	Spec ID	Specification (HARD DISK)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
13	HDD13	Type : SSD Capacity : 1920 Interface : 6Gb/s Speed : 85K – 95k RIO Size : 2.5(inch)				
14	HDD14	Type : SSD Capacity : 1920 Interface : 6Gb/s Speed : 85K – 95k RIO Size : 3.5(inch)				
15	HDD15	Type : SSD Capacity : 3840 Interface : 6Gb/s Speed : 85K – 95k RIO Size : 2.5(inch)				

**6 LAPTOP**

Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
1	LAP01	Brand : - Type : Surface Pro Size : 12.0 – 12.9(inch) Processor : Intel i5 Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SSD HDD Size : 512 GB Ethernet : - Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Mini Display Port HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Optional Anti Glare : Required Graphic Processor : Optional Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : 5.0 Front / 8.0 Rear Active Stylus Pen : - Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Windows 10				

Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
2	LAP02	Brand :- Type : Surface Pro 6 Size : 12.0 – 12.9(inch) Processor : Intel i5 Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SSD HDD Size : 512 GB Ethernet :- Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Mini Display Port HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Optional Anti Glare : Required Graphic Processor : Optional Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : 5.0 Front / 8.0 Rear Active Stylus Pen : - Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Windows 10 pro				



Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
3	LAP03	Brand :- Type : Surface Laptop Size : 13.3 – 13.9(inch) Processor : Intel i5 Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SSD HDD Size : 512 GB Ethernet :- Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Mini Display Port HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Optional Anti Glare : Required Graphic Processor : Optional Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : 5.0 Front / 8.0 Rear Active Stylus Pen : - Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Windows 10				

Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
4	LAP04	Brand :- Type : Surface Laptop Size : 13.3 – 13.9(inch) Processor : Intel i5 Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SSD HDD Size : 512 GB Ethernet :- Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Mini Display Port HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Optional Anti Glare : Required Graphic Processor : Optional Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : 5.0 Front / 8.0 Rear Active Stylus Pen :- Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Windows 10 pro				

Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
5	LAP05	Brand :- Type : Thin and Light Size : 13.3 – 13.9(inch) Processor : Intel i5 Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SATA HDD Size : 512 GB Ethernet : optional Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Optional HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Optional Anti Glare : Required Graphic Processor : Optional Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : Required Active Stylus Pen : - Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Open Source				

Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
6	LAP06	Brand :- Type : Thin and Light Size : 13.3 – 13.9(inch) Processor : Intel i5 Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SSD HDD Size : 512 GB Ethernet : optional Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Optional HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Optional Anti Glare : Required Graphic Processor : Optional Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : Required Active Stylus Pen : - Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Open Source				

Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
7	LAP07	Brand :- Type : 2 in 1 Size : 13.3 – 13.9(inch) Processor : Intel i5 Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SATA HDD Size : 512 GB Ethernet : optional Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Optional HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Required Anti Glare : Required Graphic Processor : Optional Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : Required Active Stylus Pen : yes Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Open Source				

Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
8	LAP08	Brand :- Type : 2 in 1 Size : 13.3 – 13.9(inch) Processor : Intel i5 Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SSD HDD Size : 512 GB Ethernet : optional Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Optional HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Required Anti Glare : Required Graphic Processor : Optional Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : Required Active Stylus Pen : yes Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Open Source				

Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
9	LAP09	Brand :- Type : Thin and Light Size : 14.0 – 14.9(inch) Processor : Intel i5 Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SATA HDD Size : 1024 GB Ethernet : optional Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Optional HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Optional Anti Glare : Required Graphic Processor : Optional Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : Required Active Stylus Pen : - Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Open Source				

Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
10	LAP10	Brand :- Type : Thin and Light Size : 14.0 – 14.9(inch) Processor : Intel i5 Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SSD HDD Size : 1024 GB Ethernet : optional Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Optional HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Optional Anti Glare : Required Graphic Processor : Optional Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : Required Active Stylus Pen : - Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Open Source				



Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
11	LAP11	Brand :- Type : 2 in 1 Size : 14.0 – 14.9(inch) Processor : Intel i5 Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SATA HDD Size : 1024 GB Ethernet : optional Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Optional HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Required Anti Glare : Required Graphic Processor : Optional Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : Required Active Stylus Pen : yes Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Open Source				

Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
12	LAP12	Brand :- Type : 2 in 1 Size : 14.0 – 14.9(inch) Processor : Intel i5 Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SSD HDD Size : 1024 GB Ethernet : optional Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Optional HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Optional Anti Glare : Required Graphic Processor : Optional Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : Required Active Stylus Pen : yes Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Open Source				

Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
13	LAP13	Brand :- Type : Business Size : 14.0 – 14.9(inch) Processor : Intel i5 Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SATA HDD Size : 1024 GB Ethernet : required Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Optional HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Optional Anti Glare : Required Graphic Processor : Optional Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : Required Active Stylus Pen : - Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Open Source				

Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
14	LAP14	Brand :- Type : Business Size : 14.0 – 14.9(inch) Processor : Intel i5 Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SSD HDD Size : 1024 GB Ethernet : required Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Optional HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Optional Anti Glare : Required Graphic Processor : Optional Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : Required Active Stylus Pen : - Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Open Source				

Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
15	LAP15	Brand :- Type : Laptop Size : 14.0 – 14.9(inch) Processor : Intel i5 Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SATA HDD Size : 1024 GB Ethernet : required Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Optional HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Optional Anti Glare : Required Graphic Processor : Optional Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : Required Active Stylus Pen : - Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Open Source				

Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
16	LAP16	Brand :- Type : Laptop Size : 14.0 – 14.9(inch) Processor : Intel i5 Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SSD HDD Size : 1024 GB Ethernet : required Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Optional HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Optional Anti Glare : Required Graphic Processor : Optional Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : Required Active Stylus Pen : - Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Open Source				

Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
17	LAP17	Brand :- Type : Thin and Light Size : 15.0 – 15.9(inch) Processor : Intel i5 Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SATA HDD Size : 1024 GB Ethernet : required Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Optional HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Optional Anti Glare : Required Graphic Processor : Optional Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : Required Active Stylus Pen : - Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Open Source				

Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
18	LAP18	Brand :- Type : Thin and Light Size : 15.0 – 15.9(inch) Processor : Intel i5 Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SSD HDD Size : 1024 GB Ethernet : required Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Optional HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Optional Anti Glare : Required Graphic Processor : Optional Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : Required Active Stylus Pen : - Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Open Source				



Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
19	LAP19	Brand :- Type : 2 in 1 Size : 15.0 – 15.9(inch) Processor : Intel i5 Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SATA HDD Size : 1024 GB Ethernet : required Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Optional HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Required Anti Glare : Required Graphic Processor : Optional Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : Required Active Stylus Pen : yes Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Open Source				

Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
20	LAP20	Brand :- Type : 2 in 1 Size : 15.0 – 15.9(inch) Processor : Intel i5 Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SSD HDD Size : 1024 GB Ethernet : required Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Optional HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Required Anti Glare : Required Graphic Processor : Optional Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : Required Active Stylus Pen : yes Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Open Source				

Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
21	LAP21	Brand :- Type : Business Size : 15.0 – 15.9(inch) Processor : Intel i7 Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SATA HDD Size : 1024 GB Ethernet : required Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Optional HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Optional Anti Glare : Required Graphic Processor : Optional Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : Required Active Stylus Pen : - Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Open Source				

Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
22	LAP22	Brand :- Type : Business Size : 15.0 – 15.9(inch) Processor : Intel i7 Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SSD HDD Size : 1024 GB Ethernet : required Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Optional HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Optional Anti Glare : Required Graphic Processor : Optional Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : Required Active Stylus Pen : - Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Open Source				

Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
23	LAP23	Brand :- Type : Laptop Size : 15.0 – 15.9(inch) Processor : Intel i7 Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SATA HDD Size : 1024 GB Ethernet : required Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Optional HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Optional Anti Glare : Required Graphic Processor : requied with 4G Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : Required Active Stylus Pen : - Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Open Source				

Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
24	LAP24	Brand :- Type : Laptop Size : 15.0 – 15.9(inch) Processor : Intel i7 Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SSD HDD Size : 1024 GB Ethernet : required Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Optional HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Optional Anti Glare : Required Graphic Processor : requied with 4G Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : Required Active Stylus Pen : - Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Open Source				

Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
25	LAP25	Brand :- Type : Workstation Size : 16.0 – 17.9(inch) Processor : Intel Quad Core Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SATA HDD Size : 1024 GB Ethernet : required Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Optional HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Optional Anti Glare : Required Graphic Processor : required with 8G Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : Required Active Stylus Pen : - Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Open Source				

Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
26	LAP26	Brand :- Type : Workstation Size : 16.0 – 17.9(inch) Processor : Intel Quad Core Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SSD HDD Size : 1024 GB Ethernet : required Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Optional HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Optional Anti Glare : Required Graphic Processor : required with 8G Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : Required Active Stylus Pen : - Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Open Source				



Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
27	LAP27	Brand :- Type : Business Size : 15.0 – 15.9(inch) Processor : AMD Ryzen 7 Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SATA HDD Size : 1024 GB Ethernet : required Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Optional HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Optional Anti Glare : Required Graphic Processor : Optional Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : Required Active Stylus Pen : - Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Open Source				

Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
28	LAP28	Brand :- Type : Business Size : 15.0 – 15.9(inch) Processor : AMD Ryzen 7 Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SSD HDD Size : 1024 GB Ethernet : required Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Optional HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Optional Anti Glare : Required Graphic Processor : Optional Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : Required Active Stylus Pen : - Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Open Source				

Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
29	LAP29	Brand :- Type : Laptop Size : 15.0 – 15.9(inch) Processor : AMD Ryzen 5 Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SATA HDD Size : 1024 GB Ethernet : required Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Optional HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Optional Anti Glare : Required Graphic Processor : Optional Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : Required Active Stylus Pen : - Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Open Source				

Sl. No.	Spec ID	Specification (LAPTOP)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
30	LAP30	Brand :- Type : Laptop Size : 15.0 – 15.9(inch) Processor : AMD Ryzen 5 Cache : 6mb RAM : 8 GB - DDR4 HDD Type : SSD HDD Size : 1024 GB Ethernet : required Bluetooth : v4.2 required Wifi : required VGA : Optional Display Port : Optional HDMI : required Audio Ports : USB : 3no's Minimum Color : Black/Grey Touch Screen : Optional Anti Glare : Required Graphic Processor : Optional Backlit : Required Hyper Treading : Required Turbo Boost : Required Multi Card Slot : Required Finger Sensor : Optional Web Cam : Required Active Stylus Pen : - Warranty : 3 years Minimum Accessories : PowerCord+Charger Operating System : Open Source				

**7 MONITOR**

Sl. No.	Spec ID	Specification (MONITOR)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
1	MON01	Brand : Undefined Type : LED Size : 22(inch) Resolution : default VGA : required HDMI : required Audio Ports : Optional USB : 3no's Minimum Color : Black Touch Screen : Undefined Accessories : Cable+Connector+Power Cord				
2	MON02	Brand : Undefined Type : LED Size : 24(inch) Resolution : default VGA : required HDMI : required Audio Ports : Optional USB : 3no's Minimum Color : Black Touch Screen : Undefined Accessories : Cable+Connector+Power Cord				

Sl. No.	Spec ID	Specification (MONITOR)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
3	MON03	Brand : Undefined Type : LED Size : 27(inch) Resolution : default VGA : required HDMI : required Audio Ports : Optional USB : 3no's Minimum Color : Black Touch Screen : Undefined Accessories : Cable+Connector+Power Cord				
4	MON04	Brand : Undefined Type : LED Size : 27(inch) Resolution : default VGA : required HDMI : required Audio Ports : Optional USB : 3no's Minimum Color : Black Touch Screen : Undefined Accessories : Cable+Connector+Power Cord				
5	MON05	Brand : Undefined Type : LED Size : 30(inch) Resolution : default VGA : required HDMI : required Audio Ports : Optional USB : 3no's Minimum Color : Black Touch Screen : Undefined Accessories : Cable+Connector+Power Cord				

Sl. No.	Spec ID	Specification (MONITOR)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
6	MON06	Brand : Undefined Type : LED Size : 34(inch) Resolution : default VGA : required HDMI : required Audio Ports : Optional USB : 3no's Minimum Color : Black Touch Screen : Undefined Accessories : Cable+Connector+Power Cord				
7	MON07	Brand : Undefined Type : LED Size : 37(inch) Resolution : default VGA : required HDMI : required Audio Ports : Optional USB : 3no's Minimum Color : Black Touch Screen : Undefined Accessories : Cable+Connector+Power Cord				

## 8 RAM

Sl. No.	Spec ID	Specification (RAM)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
1	RAM01	Type : DDR3 Speed : 1066 Size : 4 GB				

Sl. No.	Spec ID	Specification (RAM)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
2	RAM02	Type : DDR3 Speed : 1066 Size : 8GB				
3	RAM03	Type : DDR3 Speed : 1333 Size : 4GB				
4	RAM04	Type : DDR3 Speed : 1333 Size : 8GB				
5	RAM05	Type : DDR3 Speed : 1600 Size : 4GB				
6	RAM06	Type : DDR3 Speed : 1600 Size : 8GB				
7	RAM07	Type : DDR4 Speed : 1333 Size : 8GB				
8	RAM08	Type : DDR4 Speed : 1333 Size : 16GB				
9	RAM09	Type : DDR4 Speed : 1333 Size : 32GB				
10	RAM10	Type : DDR4 Speed : 2133 Size : 8GB				
11	RAM11	Type : DDR4 Speed : 2133 Size : 16GB				
12	RAM12	Type : DDR4 Speed : 2133 Size : 32GB				



Sl. No.	Spec ID	Specification (RAM)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
13	RAM13	Type : DDR4 Speed : 2666 Size : 8GB				
14	RAM14	Type : DDR4 Speed : 2666 Size : 16GB				
15	RAM15	Type : DDR4 Speed : 2666 Size : 32GB				
16	RAM16	Type : DDR4 Speed : 2800 Size : 8GB				
17	RAM17	Type : DDR4 Speed : 2800 Size : 16GB				
18	RAM18	Type : DDR4 Speed : 2800 Size : 32GB				
19	RAM19	Type : DDR4 Speed : 2933 Size : 8GB				
20	RAM20	Type : DDR4 Speed : 2933 Size : 16GB				
21	RAM21	Type : DDR4 Speed : 2933 Size : 32GB				
22	RAM22	Type : DDR4 Speed : 4133 Size : 8GB				
23	RAM23	Type : DDR4 Speed : 4133 Size : 16GB				

Sl. No.	Spec ID	Specification (RAM)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
24	RAM24	Type : DDR4 Speed : 4133 Size : 32GB				
25	RAM25	Type : DDR4 Speed : Size : 64GB				

## 9 SERVER

Sl. No.	Spec ID	Specification (SERVER)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
1	SRV01	Model : Tower No. of Processor & Socket : 2 Processor : Intel Xeon Gold 6246 No. of Core : 12 Clock Speed : 3.3Ghz or Higher Chipset : C6xx or Higher Cache : 25 GB RAM : 32+32 GB HDD Size : 1000 HDD Type : SAS or More Network : 2 x Gigabit PCI x16 : 4 nos, USB 3.x : 3 nos DVD R/W : required Keyboard/Mouse : required (usb) Hyper Threading : required Turbo Boost : required Management Port : required with Licence Raid (0,1,5 and 10) : required with 2GB Cache Dual Power- HotPlug : required Easy Install Rail Kit : required Operating System : Centos Warranty : 3 Years Warranty				

Sl. No.	Spec ID	Specification (SERVER)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
2	SRV02	Model : Tower No. of Processor & Socket : 2 Processor : Intel Xeon Gold 6244 No. of Core : 8 Clock Speed : 3.6Ghz or Higher Chipset : C6xx or Higher Cache : 25 GB RAM : 32+32 GB HDD Size : 1000 HDD Type : SAS or More Network : 2 x Gigabit PCI x16 : 4 nos USB 3.x : 3 nos DVD R/W : required Keyboard/Mouse : required (usb) Hyper Threading : required Turbo Boost : required Management Port : required with Licence Raid (0,1,5 and 10) : required with 2GB Cache Dual Power- HotPlug : required Easy Install Rail Kit : required Operating System : Centos Warranty : 5 Years Warranty				

Sl. No.	Spec ID	Specification (SERVER)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
3	SRV03	Model : Rack No. of Processor & Socket : 2 Processor : Intel Xeon Gold 6254 No. of Core : 18 Clock Speed : 3.1Ghz or Higher Chipset : C6xx or Higher Cache : 25 GB RAM : 32+32 GB HDD Size : 1000 HDD Type : SAS or More Network : 2 x Gigabit PCI x16 : 4 nos USB 3.x : 3 nos DVD R/W : required Keyboard/Mouse : required (usb) Hyper Threading : required Turbo Boost : required Management Port : required with Licence Raid (0,1,5 and 10) : required with 2GB Cache Dual Power- HotPlug : required Easy Install Rail Kit : required Operating System : Centos Warranty : 3 Years Warranty				

Sl. No.	Spec ID	Specification (SERVER)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
4	SRV04	Model : Rack No. of Processor & Socket : 2 Processor : Intel Xeon Gold 6246 No. of Core : 12 Clock Speed : 3.3Ghz or Higher Chipset : C6xx or Higher Cache : 25 GB RAM : 32+32 GB HDD Size : 1000 HDD Type : SAS or More Network : 2 x Gigabit PCI x16 : 4 nos USB 3.x : 3 nos DVD R/W : required Keyboard/Mouse : required (usb) Hyper Threading : required Turbo Boost : required Management Port : required with Licence Raid (0,1,5 and 10) : required with 2GB Cache Dual Power- HotPlug : required Easy Install Rail Kit : required Operating System : Centos Warranty : 3 Years Warranty				

Sl. No.	Spec ID	Specification (SERVER)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
5	SRV05	Model : Tower No. of Processor & Socket : 2 Processor : Intel Xeon Gold 6244 No. of Core : 8 Clock Speed : 3.6Ghz or Higher Chipset : C6xx or Higher Cache : 25 GB RAM : 32+32 GB HDD Size : 1000 HDD Type : SAS or More Network : 2 x Gigabit PCI x16 : 4 nos USB 3.x : 3 nos DVD R/W : required Keyboard/Mouse : required (usb) Hyper Threading : required Turbo Boost : required Management Port : required with Licence Raid (0,1,5 and 10) : required with 2GB Cache Dual Power- HotPlug : required Easy Install Rail Kit : required Operating System : Centos Warranty : 5 Years Warranty				

Sl. No.	Spec ID	Specification (SERVER)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
6	SRV06	Model : Rack No. of Processor & Socket : 2 Processor : Intel Xeon Gold 6242 No. of Core : 16 Clock Speed : 2.8Ghz or Higher Chipset : C6xx or Higher Cache : 22 GB RAM : 32+32 GB HDD Size : 1000 HDD Type : SAS or More Network : 2 x Gigabit PCI x16 : 4 nos USB 3.x : 3 nos DVD R/W : required Keyboard/Mouse : required (usb) Hyper Threading : required Turbo Boost : required Management Port : required with Licence Raid (0,1,5 and 10) : required with 2GB Cache Dual Power- HotPlug : required Easy Install Rail Kit : required Operating System : Centos Warranty : 3 Years Warranty				

Sl. No.	Spec ID	Specification (SERVER)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
7	SRV07	Model : Rack No. of Processor & Socket : 2 Processor : Intel Xeon Gold 6234 No. of Core : 8 Clock Speed : 3.4Ghz or Higher Chipset : C6xx or Higher Cache : 25 GB RAM : 32+32 GB HDD Size : 1000 HDD Type : SAS or More Network : 2 x Gigabit PCI x16 : 4 nos USB 3.x : 3 nos DVD R/W : required Keyboard/Mouse : required (usb) Hyper Threading : required Turbo Boost : required Management Port : required with Licence Raid (0,1,5 and 10) : required with 2GB Cache Dual Power- HotPlug : required Easy Install Rail Kit : required Operating System : Centos Warranty : 3 Years Warranty				



Sl. No.	Spec ID	Specification (SERVER)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
8	SRV08	Model : Rack No. of Processor & Socket : 2 Processor : Intel Xeon Gold 6226 No. of Core : 12 Clock Speed : 2.7Ghz or Higher Chipset : C6xx or Higher Cache : 19 GB RAM : 32+32 GB HDD Size : 1000 HDD Type : SAS or More Network : 2 x Gigabit PCI x16 : 4 nos USB 3.x : 3 nos DVD R/W : required Keyboard/Mouse : required (usb) Hyper Threading : required Turbo Boost : required Management Port : required with Licence Raid (0,1,5 and 10) : required with 2GB Cache Dual Power- HotPlug : required Easy Install Rail Kit : required Operating System : Centos Warranty : 4 Years Warranty				

Sl. No.	Spec ID	Specification (SERVER)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
9	SRV09	Model : Rack No. of Processor & Socket : 2 Processor : Intel Xeon Platinum 8268 No. of Core : 24 Clock Speed : 2.9Ghz or Higher Chipset : C6xx or Higher Cache : 36 GB RAM : 32+32 GB HDD Size : 1000 HDD Type : SAS or More Network : 2 x Gigabit PCI x16 : 4 nos USB 3.x : 3 nos DVD R/W : required Keyboard/Mouse : required (usb) Hyper Threading : required Turbo Boost : required Management Port : required with Licence Raid (0,1,5 and 10) : required with 2GB Cache Dual Power- HotPlug : required Easy Install Rail Kit : required Operating System : Centos Warranty : 3 Years Warranty				

Sl. No.	Spec ID	Specification (SERVER)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
10	SRV10	Model : Rack No. of Processor & Socket : 2 Processor : Intel Xeon Platinum 8270 No. of Core : 26 Clock Speed : 2.7Ghz or Higher Chipset : C6xx or Higher Cache : 36 GB RAM : 32+32 GB HDD Size : 1000 HDD Type : SAS or More Network : 2 x Gigabit PCI x16 : 4 nos USB 3.x : 3 nos DVD R/W : required Keyboard/Mouse : required (usb) Hyper Threading : required Turbo Boost : required Management Port : required with Licence Raid (0,1,5 and 10) : required with 2GB Cache Dual Power- HotPlug : required Easy Install Rail Kit : required Operating System : Centos Warranty : 3 Years Warranty				

Sl. No.	Spec ID	Specification (SERVER)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
11	SRV11	Model : Rack No. of Processor & Socket : 2 Processor : Intel Xeon Platinum 8280 No. of Core : 28 Clock Speed : 2.7Ghz or Higher Chipset : C6xx or Higher Cache : 39 GB RAM : 32+32 GB HDD Size : 1000 HDD Type : SAS or More Network : 2 x Gigabit PCI x16 : 4 nos USB 3.x : 3 nos DVD R/W : required Keyboard/Mouse : required (usb) Hyper Threading : required Turbo Boost : required Management Port : required with Licence Raid (0,1,5 and 10) : required with 2GB Cache Dual Power- HotPlug : required Easy Install Rail Kit : required Operating System : Centos Warranty : 3 Years Warranty				

Sl. No.	Spec ID	Specification (SERVER)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
12	SRV12	Model : Rack No. of Processor & Socket : 2 Processor : Intel Xeon Silver 4215 No. of Core : 8 Clock Speed : 2.5Ghz or Higher Chipset : C6xx or Higher Cache : 11 GB RAM : 32+32 GB HDD Size : 1000 HDD Type : SAS or More Network : 2 x Gigabit PCI x16 : 4 nos USB 3.x : 3 nos DVD R/W : required Keyboard/Mouse : required (usb) Hyper Threading : required Turbo Boost : required Management Port : required with Licence Raid (0,1,5 and 10) : required with 2GB Cache Dual Power- HotPlug : required Easy Install Rail Kit : required Operating System : Centos Warranty : 3 Years Warranty				

Sl. No.	Spec ID	Specification (SERVER)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
13	SRV13	Model : Rack No. of Processor & Socket : 2 Processor : AMD EPYC 7272 No. of Core : 12 Clock Speed : 2.9Ghz or Higher Chipset : Equivalent Cache : 64 GB RAM : 32+32 GB HDD Size : 1000 HDD Type : SAS or More Network : 2 x Gigabit PCI x16 : 4 nos USB 3.x : 3 nos DVD R/W : required Keyboard/Mouse : required (usb) Hyper Threading : required Turbo Boost : required Management Port : required with Licence Raid (0,1,5 and 10) : required with 2GB Cache Dual Power- HotPlug : required Easy Install Rail Kit : required Operating System : Centos Warranty : 3 Years Warranty				

Sl. No.	Spec ID	Specification (SERVER)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
14	SRV14	Model : Rack No. of Processor & Socket : 2 Processor : AMD EPYC 7302 No. of Core : 16 Clock Speed : 3.0Ghz or Higher Chipset : Equivalent Cache : 128 GB RAM : 32+32 GB HDD Size : 1000 HDD Type : SAS or More Network : 2 x Gigabit PCI x16 : 4 nos USB 3.x : 3 nos DVD R/W : required Keyboard/Mouse : required (usb) Hyper Threading : required Turbo Boost : required Management Port : required with Licence Raid (0,1,5 and 10) : required with 2GB Cache Dual Power- HotPlug : required Easy Install Rail Kit : required Operating System : Centos Warranty : 3 Years Warranty				

Sl. No.	Spec ID	Specification (SERVER)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
15	SRV15	Model : Rack No. of Processor & Socket : 2 Processor : AMD EPYC 7402 No. of Core : 24 Clock Speed : 2.8Ghz or Higher Chipset : Equivalent Cache : 128 GB RAM : 32+32 GB HDD Size : 1000 HDD Type : SAS or More Network : 2 x Gigabit PCI x16 : 4 nos USB 3.x : 3 nos DVD R/W : required Keyboard/Mouse : required (usb) Hyper Threading : required Turbo Boost : required Management Port : required with Licence Raid (0,1,5 and 10) : required with 2GB Cache Dual Power- HotPlug : required Easy Install Rail Kit : required Operating System : Centos Warranty : 3 Years Warranty				



**10 TABLET**

Sl. No.	Spec ID	Specification (TABLET)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
1	TAB01	Brand : Standard TYPE : Tablet Screen Size (inch) : 9 and above Processor (equivalent) : 1.8Ghz + 1.6Ghz Qualcomm/Dragon/Kirin/Exynos Latest RAM : >=4GB Internal Memory (GB) : 64 External Memory (GB) : 128 Power : 6000Mah Ethernet : Wifi / Wifi + Calling Bluetooth > 4.2 : required Wifi compatible : Yes Audio ports : Yes USB/USB-C 3.x/OTG : Yes Color : Any Touch Screen: Yes Battery Cell : Replaceable Grollia Glass : Yes Backlit : Optional Multimedia : Yes Finger Print Sensor/Touch ID : Yes Web Cam : 8MP Back / 5MP Front are higher Active Stylus Pen : Option Warranty : 3 years Accessories (required) : Charger + Carry Case OS : Latest Android				

Sl. No.	Spec ID	Specification (TABLET)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
2	TAB02	Brand : Standard TYPE : Tablet Screen Size (inch) : 8.0 to 8.9 Processor (equivalent) : 1.8Ghz + 1.6Ghz Qualcomm/Dragon/Kirin/Exynos Latest RAM : >=4GB Internal Memory (GB) : 64 External Memory (GB) : 128 Power : 6000Mah Ethernet : Wifi / Wifi + Calling Bluetooth > 4.2 : required Wifi compatible : Yes Audio ports : Yes USB/USB-C 3.x/OTG : yes Color : Any Touch Screen : Yes Battery Cell : replaceable Grollia Glass : yes Backlit : Optional Multimedia : Yes Finger Print Sensor/Touch ID : Yes Web Cam : 8MP Back / 5MP Front are higher Active Stylus Pen : Option Warranty : 3 years Accessories (required) : Charger + Carry Case OS : Latest Android				

## 11 WORKSTATION

Sl. No.	Spec ID	Specification (WORKSTATION)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
1	WRK01	Model : Tower No. of Processor & Socket : 1 Processor : AMD Ryzen Threadripper 2970WX No. of Core : 24 Clock Speed : 3.0Ghz or Higher Chipset : Equivalent Cache : 64 GB RAM : 32GB GB HDD Size : 1000 GB HDD Type : SATA or More Network : 2 x Gigabit PCI x16 : 4 nos PCI x8 : 2 nos USB 3.x : 4 nos DVD R/W : required Keyboard/Mouse : required (usb) Hyper Threading : required Turbo Boost : required Raid (0,1,5) : required with 2GB Cache Dual Power- HotPlug : 800W Easy Install Rail Kit : Tower to Rack Conversion Kit Operating System : Centos Warranty : 3 Years Warranty				

Sl. No.	Spec ID	Specification (WORKSTATION)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
2	WRK02	Model : Tower No. of Processor & Socket : 1 Processor : AMD Ryzen Threadripper 2990WX No. of Core : 32 Clock Speed : 3.0 Ghz or Higher Chipset : X399 Cache : 64 GB RAM : 32GB GB HDD Size : 1000 GB HDD Type : SATA or More Network : 2 x Gigabit PCI x16 : 4 nos PCI x8 : 2 nos USB 3.x : 4 nos DVD R/W : required Keyboard/Mouse : required (usb) Hyper Threading : required Turbo Boost : required Raid (0,1,5) : required with 2GB Cache Dual Power- HotPlug : 800W Easy Install Rail Kit : Tower to Rack Conversion Kit Operating System : Centos Warranty : 3 Years Warranty				

Sl. No.	Spec ID	Specification (WORKSTATION)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
3	WRK03	Model : Tower No. of Processor & Socket : 1 Processor : Intel Xeon W-3223 No. of Core : 8 Clock Speed : 3.5Ghz or Higher Chipset : C4xx or Higher Cache : 17 GB RAM : 32GB GB HDD Size : 1000 GB HDD Type : SATA or More Network : 2 x Gigabit PCI x16 : 4 nos PCI x8 : 2 nos USB 3.x : 4 nos DVD R/W : required Keyboard/Mouse : required (usb) Hyper Threading : required Turbo Boost : required Raid (0,1,5) : required with 2GB Cache Dual Power- HotPlug : 800W Easy Install Rail Kit : Tower to Rack Conversion Kit Operating System : Centos Warranty : 3 Years Warranty				

Sl. No.	Spec ID	Specification (WORKSTATION)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
4	WRK04	Model : Tower No. of Processor & Socket : 1 Processor : Intel Xeon W-3225 No. of Core : 8 Clock Speed : 3.7Ghz or Higher Chipset : C4xx or Higher Cache : 17 GB RAM : 32GB GB HDD Size : 1000 GB HDD Type : SATA or More Network : 2 x Gigabit PCI x16 : 4 nos PCI x8 : 2 nos USB 3.x : 4 nos DVD R/W : required Keyboard/Mouse : required (usb) Hyper Threading : required Turbo Boost : required Raid (0,1,5) : required with 2GB Cache Dual Power- HotPlug : 800W Easy Install Rail Kit : Tower to Rack Conversion Kit Operating System : Centos Warranty : 3 Years Warranty				

Sl. No.	Spec ID	Specification (WORKSTATION)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
5	WRK05	Model : Tower No. of Processor & Socket : 1 Processor : Intel Xeon W-3235 No. of Core : 12 Clock Speed : 3.2Ghz or Higher Chipset : C4xx or Higher Cache : 19 GB RAM : 32GB GB HDD Size : 1000 GB HDD Type : SATA or More Network : 2 x Gigabit PCI x16 : 4 nos PCI x8 : 2 nos USB 3.x : 4 nos DVD R/W : required Keyboard/Mouse : required (usb) Hyper Threading : required Turbo Boost : required Raid (0,1,5) : required with 2GB Cache Dual Power- HotPlug : 800W Easy Install Rail Kit : Tower to Rack Conversion Kit Operating System : Centos Warranty : 3 Years Warranty				

Sl. No.	Spec ID	Specification (WORKSTATION)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
6	WRK06	Model : Tower No. of Processor & Socket : 1 Processor : Intel Xeon W-3245 No. of Core : 16 Clock Speed : 3.2Ghz or Higher Chipset : C4xx or Higher Cache : 22 GB RAM : 32GB GB HDD Size : 1000 GB HDD Type : SATA or More Network : 2 x Gigabit PCI x16 : 4 nos PCI x8 : 2 nos USB 3.x : 4 nos DVD R/W : required Keyboard/Mouse : required (usb) Hyper Threading : required Turbo Boost : required Raid (0,1,5) : required with 2GB Cache Dual Power- HotPlug : 800W Easy Install Rail Kit : Tower to Rack Conversion Kit Operating System : Centos Warranty : 3 Years Warranty				



Sl. No.	Spec ID	Specification (WORKSTATION)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
7	WRK07	Model : Tower No. of Processor & Socket : 1 Processor : Intel Xeon W-3265 No. of Core : 24 Clock Speed : 2.70Ghz or Higher Chipset : C4xx or Higher Cache : 33 GB RAM : 32GB GB HDD Size : 1000 GB HDD Type : SATA or More Network : 2 x Gigabit PCI x16 : 4 nos PCI x8 : 2 nos USB 3.x : 4 nos DVD R/W : required Keyboard/Mouse : required (usb) Hyper Threading : required Turbo Boost : required Raid (0,1,5) : required with 2GB Cache Dual Power- HotPlug : 800W Easy Install Rail Kit : Tower to Rack Conversion Kit Operating System : Centos Warranty : 3 Years Warranty				

Sl. No.	Spec ID	Specification (WORKSTATION)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
8	WRK08	Model : Tower No. of Processor & Socket : 1 Processor : Intel Xeon W-3275 No. of Core : 28 Clock Speed : 2.5Ghz or Higher Chipset : C4xx or Higher Cache : 39 GB RAM : 32GB GB HDD Size : 1000 GB HDD Type : SATA or More Network : 2 x Gigabit PCI x16 : 4 nos PCI x8 : 2 nos USB 3.x : 4 nos DVD R/W : required Keyboard/Mouse : required (usb) Hyper Threading : required Turbo Boost : required Raid (0,1,5) : required with 2GB Cache Dual Power- HotPlug : 800W Easy Install Rail Kit : Tower to Rack Conversion Kit Operating System : Centos Warranty : 3 Years Warranty				

Sl. No.	Spec ID	Specification (WORKSTATION)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
9	WRK09	Model : Tower No. of Processor & Socket : 1 Processor : Intel Xeon Gold 6209U No. of Core : 20 Clock Speed : 2.10Ghz or Higher Chipset : C6xx or Higher Cache : 28 GB RAM : 32GB GB HDD Size : 1000 GB HDD Type : SATA or More Network : 2 x Gigabit PCI x16 : 4 nos PCI x8 : 2 nos USB 3.x : 4 nos DVD R/W : required Keyboard/Mouse : required (usb) Hyper Threading : required Turbo Boost : required Raid (0,1,5) : required with 2GB Cache Dual Power- HotPlug : 800W Easy Install Rail Kit : Tower to Rack Conversion Kit Operating System : Centos Warranty : 3 Years Warranty				

**11 SPARES**

Sl. No.	Spec ID	Specification (SPARES)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
1	SPA01	Category : Server/WorkStation Item : Network Card Description : 1Gb Quad Port Warranty : 3+ Years				
2	SPA02	Category : Server/WorkStation Item : Network Card Description : 10Gbe Dual Port, T-Base Warranty : 3+ Years				
3	SPA03	Category : Server/WorkStation Item : Network Card Description : 10Gbe Dual Port, SFP Warranty : 3+ Years Note : With suitable Transceiver				
4	SPA04	Category : Server/WorkStation Item : Network Card Description : 16Gb Dual Port, Fibrechannel Host Bus Adpater Warranty : 3+ Years Note : With suitable Transceiver				
5	SPA05	Category : Server/WorkStation Item : Network Card Description : 100Gb InfiniBand EDR Warranty : 3+ Years Note : with Accessories				
6	SPA06	Category : Server/WorkStation Item : Network Card Description : 100Gb InfiniBand OPA Warranty : 3+ Years Note : with Accessories				

Sl. No.	Spec ID	Specification (SPARES)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
7	SPA07	Category : Server/WorkStation Item : Cable Description : 2Meter InfiniBand Warranty : 3+ Years Note : with Accessories				
8	SPA08	Category : Server/WorkStation Item : Cable Description : 3Meter InfiniBand Warranty : 3+ Years Note : with Accessories				
9	SPA09	Category : Server/WorkStation Item : Cable Description : 5Meter InfiniBand Warranty : 3+ Years Note : with Accessories				
10	SPA10	Category : Server/WorkStation Item : HDD Description : 24SFF Disk Enclosure Warranty : 3+ Years Note : with Necessary Accessories				
11	SPA11	Category : Server/WorkStation Item : HDD Description : 12LFF Disk Enclosure Warranty : 3+ Years Note : with Necessary Accessories				
12	SPA12	Category : Server/WorkStation Item : Power – SMPS Description : 100V - 240V AC Common Slot Power Supplies Warranty : 3+ Years Note : with Necessary Accessories				

Sl. No.	Spec ID	Specification (SPARES)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
13	SPA13	Category : Server Item : Raid Card Description : 2G Cache Raid should support 0,1,5,6 and 10 Warranty : 3+ Years Note : Supported (0,1,5,6 and 10)				
14	SPA14	Category : Apple Item : Pencil Description : 1st Gen Warranty : 3+ Years				
15	SPA15	Category : Apple Item : Pencil Description : 2nd Gen Warranty : 3+ Years				
16	SPA16	Category : Apple Item : Pencil Tip Description : For 1st and 2nd Gen Pencil Warranty : 3+ Years				
17	SPA17	Category : Apple Item : Cable Description : 2Meters Lightning to USB Cable 3.0 Warranty : 3+ Years Note : Must connect will all ipads				
18	SPA18	Category : Apple Item : Cable Description : 2Meters USB-C Charge Cable Warranty : 3+ Years Note : Must connect will all ipads				
19	SPA19	Category : Apple Item : Card Reader Description : USB-C to SD Card Reader Warranty : 3+ Years				

Sl. No.	Spec ID	Specification (SPARES)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
20	SPA20	Category : Apple Item : Cable Description : Apple Lightning to VGA Adapter Warranty : 3+ Years Note : Must connect will all imac / Mac pro /Mac book				
21	SPA21	Category : Apple Item : Cable Description : Apple Lightning to HDMI Adapter Warranty : 3+ Years				
22	SPA22	Category : Apple Item : Cable Description : 30pin Apple Apple Dock Connector to VGA Adapter Warranty : 3+ Years				
23	SPA23	Category : Apple Item : Cable Description : 30pin Apple Dock Connector to HDMI Adapter Warranty : 3+ Years				
24	SPA24	Category : Apple Item : Cable Description : Apple HDMI to DVI Adapter Warranty : 3+ Years				
25	SPA25	Category : Apple Item : Power Adapter Description : 12w Power Adapter for (Ipad Family) Warranty : 3+ Years				
26	SPA26	Category : Apple Item : Power Adapter Description : 61W Power Adapter for (Ipad Family) Warranty : 3+ Years				

Sl. No.	Spec ID	Specification (SPARES)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
27	SPA27	Category : Apple Item : Power Adapter Description : 30W Power Adapter for (Ipad Family) Warranty : 3+ Years				
28	SPA28	Category : Apple Item : Power Adapter Description : 5W Power Adapter for (Ipad Family) Warranty : 3+ Years				
29	SPA29	Category : Apple Item : Power Adapter Description : 87W Power Adapter for (Ipad Family) Warranty : 3+ Years				
30	SPA30	Category : Apple Item : smart keyboard Description : Ipad Family(Ipad / ipad / ipad pro/ipad mini/ipad Air) Warranty : 3+ Years Note : Must be support in all ipads.				
31	SPA31	Category : Apple Item : Smart Folio Description : For Ipad Family with ranging Screen Size Warranty : 3+ Years Note : Must be support in all ipads.				
32	SPA32	Category : Laptop Item : Cable Description : MS Mini DisplayPort to HDMI Adapter Warranty : 3+ Years				



Sl. No.	Spec ID	Specification (SPARES)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
33	SPA33	Category : Laptop Item : Cable Description : MS Mini DisplayPort to VGA Adapter Warranty : 3+ Years				
34	SPA34	Category : Laptop Item : Network Card Description : MS Ethernet Adapter Warranty : 3+ Years Note : External				
35	SPA35	Category : Laptop Item : Surface Description : Microsoft Surface Dock Station Pro/Pro 3/ Pro 4/Pro 6/Laptop/Laptop2/Book /Book2/Go Warranty : 3+ Years				
36	SPA36	Category : Laptop Item : Surface Description : Microsoft Surface 65W Power Supply Warranty : 3+ Years				
37	SPA37	Category : Laptop Item : Surface Description : Surface Pro Pen Warranty : 3+ Years				
38	SPA38	Category : Surface Item : Surface Description : Srfc Arc Mouse Commercial Black Warranty : 3+ Years				
39	SPA39	Category : Surface Item : Surface Description : Surface Pro Pen Tip Warranty : 3+ Years				

Sl. No.	Spec ID	Specification (SPARES)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
40	SPA40	Category : Surface Item : Surface Description : Ms Ethernet Adapter Warranty : 3+ Years				
41	SPA41	Category : Surface Item : Surface Description : Surface Mobile Mouse-Black Warranty : 3+ Years				
42	SPA42	Category : Surface Item : Surface Description : Spro Sigma Type cover Platinnium Warranty : 3+ Years				
43	SPA43	Category : Surface Item : Surface Description : Spro Type cover Black Warranty : 3+ Years				
44	SPA44	Category : Surface Item : Surface Description : Microsoft Surface Dock Station Warranty : 3+ Years				
45	SPA45	Category : Surface Item : Surface Description : Srfc Arc Mouse Light Gray Warranty : 3+ Years				
46	SPA46	Category : Surface Item : Surface Description : Surface pro Pen Silver Warranty : 3+ Years				

Sl. No.	Spec ID	Specification (SPARES)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
47	SPA47	Category : Surface Item : Surface Description : Microsoft Surface 44W Power Supply Warranty : 3+ Years				
48	SPA48	Category : Surface Item : Surface Description : Microsoft Surface 102W Power Supply Warranty : 3+ Years				
49	SPA49	Category : Surface Item : Surface Description : Book2 USB-C to VGA Adapter Warranty : 3+ Years				
50	SPA50	Category : Surface Item : Surface Description : Book2 USB-C to HDMI Adapter Warranty : 3+ Years				
51	SPA51	Category : Surface Item : Surface Description : Surf Go Sig Typecover Platinnium Warranty : 3+ Years				
52	SPA52	Category : Surface Item : Surface Description : Surf Go Typecover Black Warranty : 3+ Years				

Sl. No.	Spec ID	Specification (SPARES)	Proposed specification	Brand & Model No.	Relevant Supporting Document Page No.	Remarks
53	SPA53	Category : Surface Item : Surface Description : Surface Mobile Mouse - Burgandy Warranty : 3+ Years				
54	SPA54	Category : Network Item : Router Description : LAN Ports : 4 WAN Ports : 1 Data Signal Rate • 2.4 GHz - Up to 300 Mbps and above • 5 GHz - Up to 866 Mbps and above • Ethernet - 10/100/1000 Mbps (auto-negotiation) Warranty : 3+ Years Note : Router, 3 Detachable Antennas, Ethernet Cable, Power Adapter				
55	SPA55	Category : Network Item : Wireless Adapter / Wi-Fi Dongle Description : 5GHZ wireless speeds, 802.11b, 802.11g, 802.11n USB 3.0 Warranty : 3+ Years Note : Resource CD (if any) Frequency needs to be matched with User Appliance.				
56	SPA56	Category : Network Item : Patch Cord Description : 2 Meters CAT6E Warranty : -				
57	SPA57	Category : HDD Item : External Description : 2TB, USB 3.0, Slim Device Warranty : 3+ Years				

**BOQ - PRICE BID FORMAT**

Tender No. IITM/SPS/COMPUTER RC/003/2019-20									
Tender Inviting Authority: The Registrar, Indian Institute of Technology Madras									
Name of Work: Purchase of Computers and other Computer related items through Rate Contract for the period of one year									
Contract No:									
Name of the Bidder/ Bidding Firm /Company									
<b><u>PRICE SCHEDULE</u></b>									
<b>(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevent columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only )</b>									
NUMBER #	TEXT #	TEXT #	NUMBER#	TEX#	TEXT#	TEXT #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Specification ID	Item Code / Make	Quantity	Units	Currency Conversion against each Item	Quoted Currency in INR / USD	BASIC RATE In Figures To be entered by the Bidder including freight and forwarding charges	TOTAL AMOUNT, It will be converted based on coloumn L value in Rs. P	TOTAL AMOUNT In Words
1	2	3	4	5	11	12	13	53.00	55
1	ALL IN ONE								
1.01	ALL IN ONE	AIO01	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
1.02	ALL IN ONE	AIO02	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
1.03	ALL IN ONE	AIO03	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only

1.04	ALL IN ONE	AIO04	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
1.05	ALL IN ONE	AIO05	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
2	<b>APPLE</b>								
2.01	APPLE	APP01	1	Nos	Full Conversion	INR/USD		0.00	USD Zero Only
2.02	APPLE	APP02	1	Nos	Full Conversion	INR/USD		0.00	USD Zero Only
2.03	APPLE	APP03	1	Nos	Full Conversion	INR/USD		0.00	USD Zero Only
2.04	APPLE	APP04	1	Nos	Full Conversion	INR/USD		0.00	USD Zero Only
2.05	APPLE	APP05	1	Nos	Full Conversion	INR/USD		0.00	USD Zero Only
2.06	APPLE	APP06	1	Nos	Full Conversion	INR/USD		0.00	USD Zero Only
2.07	APPLE	APP07	1	Nos	Full Conversion	INR/USD		0.00	USD Zero Only
2.08	APPLE	APP08	1	Nos	Full Conversion	INR/USD		0.00	USD Zero Only
2.09	APPLE	APP09	1	Nos	Full Conversion	INR/USD		0.00	USD Zero Only
2.10	APPLE	APP10	1	Nos	Full Conversion	INR/USD		0.00	USD Zero Only
2.11	APPLE	APP11	1	Nos	Full Conversion	INR/USD		0.00	USD Zero Only
2.12	APPLE	APP12	1	Nos	Full Conversion	INR/USD		0.00	USD Zero Only
2.13	APPLE	APP13	1	Nos	Full Conversion	INR/USD		0.00	USD Zero Only
2.14	APPLE	APP14	1	Nos	Full Conversion	INR/USD		0.00	USD Zero Only
2.15	APPLE	APP15	1	Nos	Full Conversion	INR/USD		0.00	USD Zero Only
3	<b>DESKTOP</b>								
3.01	DESKTOP	DSK1	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
3.02	DESKTOP	DSK2	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
3.03	DESKTOP	DSK3	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
3.04	DESKTOP	DSK4	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
3.05	DESKTOP	DSK5	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
3.06	DESKTOP	DSK6	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only

4	<b>GRAPHIC CARD</b>								
4.01	GRAPHIC CARD	GRP01	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
4.02	GRAPHIC CARD	GRP02	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
4.03	GRAPHIC CARD	GRP03	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
4.04	GRAPHIC CARD	GRP04	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
4.05	GRAPHIC CARD	GRP05	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
4.06	GRAPHIC CARD	GRP06	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
4.07	GRAPHIC CARD	GRP07	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
4.08	GRAPHIC CARD	GRP08	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
4.09	GRAPHIC CARD	GRP09	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
4.10	GRAPHIC CARD	GRP10	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
4.11	GRAPHIC CARD	GRP11	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
4.12	GRAPHIC CARD	GRP12	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
4.13	GRAPHIC CARD	GRP13	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
4.14	GRAPHIC CARD	GRP14	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
4.15	GRAPHIC CARD	GRP15	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
5	<b>HARD DISK</b>								
5.01	HARD DISK	HDD01	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
5.02	HARD DISK	HDD02	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
5.03	HARD DISK	HDD03	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
5.04	HARD DISK	HDD04	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
5.05	HARD DISK	HDD05	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
5.06	HARD DISK	HDD06	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
5.07	HARD DISK	HDD07	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
5.08	HARD DISK	HDD08	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only

5.09	HARD DISK	HDD09	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
5.10	HARD DISK	HDD10	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
5.11	HARD DISK	HDD11	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
5.12	HARD DISK	HDD12	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
5.13	HARD DISK	HDD13	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
5.14	HARD DISK	HDD14	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
5.15	HARD DISK	HDD15	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
6	<b>LAPTOP</b>								
6.01	LAPTOP	LAP01	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
6.02	LAPTOP	LAP02	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
6.03	LAPTOP	LAP03	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
6.04	LAPTOP	LAP04	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
6.05	LAPTOP	LAP05	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
6.06	LAPTOP	LAP06	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
6.07	LAPTOP	LAP07	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
6.08	LAPTOP	LAP08	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
6.09	LAPTOP	LAP09	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
6.10	LAPTOP	LAP10	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
6.11	LAPTOP	LAP11	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
6.12	LAPTOP	LAP12	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
6.13	LAPTOP	LAP13	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
6.14	LAPTOP	LAP14	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
6.15	LAPTOP	LAP15	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
6.16	LAPTOP	LAP16	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
6.17	LAPTOP	LAP17	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only



6.18	LAPTOP	LAP18	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
6.19	LAPTOP	LAP19	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
6.20	LAPTOP	LAP20	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
6.21	LAPTOP	LAP21	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
6.22	LAPTOP	LAP22	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
6.23	LAPTOP	LAP23	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
6.24	LAPTOP	LAP24	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
6.25	LAPTOP	LAP25	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
6.26	LAPTOP	LAP26	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
6.27	LAPTOP	LAP27	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
6.28	LAPTOP	LAP28	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
6.29	LAPTOP	LAP29	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
6.30	LAPTOP	LAP30	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
7	<b>MONITOR</b>								
7.01	MONITOR	MON01	1	Nos	Full Conversion	INR/USD		0.00	USD Zero Only
7.02	MONITOR	MON02	1	Nos	Full Conversion	INR/USD		0.00	USD Zero Only
7.03	MONITOR	MON03	1	Nos	Full Conversion	INR/USD		0.00	USD Zero Only
7.04	MONITOR	MON04	1	Nos	Full Conversion	INR/USD		0.00	USD Zero Only
7.05	MONITOR	MON05	1	Nos	Full Conversion	INR/USD		0.00	USD Zero Only
7.06	MONITOR	MON06	1	Nos	Full Conversion	INR/USD		0.00	USD Zero Only
7.07	MONITOR	MON07	1	Nos	Full Conversion	INR/USD		0.00	USD Zero Only
8	<b>RAM</b>								
8.01	RAM	RAM01	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
8.02	RAM	RAM02	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
8.03	RAM	RAM03	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only

8.04	RAM	RAM04	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
8.05	RAM	RAM05	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
8.06	RAM	RAM06	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
8.07	RAM	RAM07	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
8.08	RAM	RAM08	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
8.09	RAM	RAM09	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
8.10	RAM	RAM10	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
8.11	RAM	RAM11	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
8.12	RAM	RAM12	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
8.13	RAM	RAM13	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
8.14	RAM	RAM14	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
8.15	RAM	RAM15	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
8.16	RAM	RAM16	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
8.17	RAM	RAM17	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
8.18	RAM	RAM18	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
8.19	RAM	RAM19	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
8.20	RAM	RAM20	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
8.21	RAM	RAM21	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
8.22	RAM	RAM22	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
8.23	RAM	RAM23	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
8.24	RAM	RAM24	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
8.25	RAM	RAM25	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
9	<b>SERVER</b>								
9.01	SERVER	SRV01	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
9.02	SERVER	SRV02	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only

9.03	SERVER	SRV03	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
9.04	SERVER	SRV04	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
9.05	SERVER	SRV05	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
9.06	SERVER	SRV06	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
9.07	SERVER	SRV07	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
9.08	SERVER	SRV08	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
9.09	SERVER	SRV09	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
9.10	SERVER	SRV10	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
9.11	SERVER	SRV11	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
9.12	SERVER	SRV12	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
9.13	SERVER	SRV13	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
9.14	SERVER	SRV14	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
9.15	SERVER	SRV15	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
10	<b>TABLET</b>								
10.01	TABLET	TAB01	1	Nos	Full Conversion	INR/USD		0.00	USD Zero Only
10.02	TABLET	TAB02	1	Nos	Full Conversion	INR/USD		0.00	USD Zero Only
11	<b>WORKSTATION</b>								
11.01	WORKSTATION	WRK01	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
11.02	WORKSTATION	WRK02	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
11.03	WORKSTATION	WRK03	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
11.04	WORKSTATION	WRK04	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
11.05	WORKSTATION	WRK05	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
11.06	WORKSTATION	WRK06	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
11.07	WORKSTATION	WRK07	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
11.08	WORKSTATION	WRK08	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only

11.09	WORKSTATION	WRK09	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12	<b>SPARES</b>								
12.01	SPARES	SPA01	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.02	SPARES	SPA02	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.03	SPARES	SPA03	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.04	SPARES	SPA04	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.05	SPARES	SPA05	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.06	SPARES	SPA06	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.07	SPARES	SPA07	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.08	SPARES	SPA08	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.09	SPARES	SPA09	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.10	SPARES	SPA10	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.11	SPARES	SPA11	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.12	SPARES	SPA12	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.13	SPARES	SPA13	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.14	SPARES	SPA14	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.15	SPARES	SPA15	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.16	SPARES	SPA16	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.17	SPARES	SPA17	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.18	SPARES	SPA18	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.19	SPARES	SPA19	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.20	SPARES	SPA20	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.21	SPARES	SPA21	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.22	SPARES	SPA22	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.23	SPARES	SPA23	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only

12.24	SPARES	SPA24	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.25	SPARES	SPA25	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.26	SPARES	SPA26	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.27	SPARES	SPA27	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.28	SPARES	SPA28	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.29	SPARES	SPA29	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.30	SPARES	SPA30	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.31	SPARES	SPA31	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.32	SPARES	SPA32	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.33	SPARES	SPA33	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.34	SPARES	SPA34	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.35	SPARES	SPA35	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.36	SPARES	SPA36	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.37	SPARES	SPA37	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.38	SPARES	SPA38	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.39	SPARES	SPA39	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.40	SPARES	SPA40	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.41	SPARES	SPA41	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.42	SPARES	SPA42	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.43	SPARES	SPA43	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.44	SPARES	SPA44	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.45	SPARES	SPA45	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.46	SPARES	SPA46	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.47	SPARES	SPA47	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.48	SPARES	SPA48	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only

12.49	SPARES	SPA49	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.50	SPARES	SPA50	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.51	SPARES	SPA51	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.52	SPARES	SPA52	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.53	SPARES	SPA53	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.54	SPARES	SPA54	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.55	SPARES	SPA55	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.56	SPARES	SPA56	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
12.57	SPARES	SPA57	1	Nos	Full Conversion	INR/USD		0.00	INR Zero Only
<b>Total in Figures</b>								<b>0.00</b>	Zero Only
<b>Quoted Rate in Words</b>									

**SIGNATURE OF TENDERER  
ALONG WITH SEAL OF THE  
COMPANY WITH DATE**

**OEM AUTHORIZATION LETTER FORMAT**

**Tender No.: IITM/SPS/Computer RC/011/2019-20**

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

To  
The Registrar  
Indian Institute of Technology Madras  
Chennai - 600 036.

Dear Sir,

We M/s. \_\_\_\_\_ manufacturers of original equipments do hereby authorize M/s. \_\_\_\_\_ (Name and address of Premium Partner) to provide supply, service and "after supply services" for the above referred tender.

We hereby extend our full guarantee and warranty as per Clause 9 of the Conditions of Contract goods and services offered for supply, service and after supply services by the above firm.

Yours faithfully,

(Name)

(Name of manufactures)

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

## SCHEDULE

Name of Organization	Indian Institute of Technology Madras
Tender Type (Open/Limited/EOI/Auction/Single)	OPEN
Tender Category (Services/Goods/works)	Goods
Type/Form of Contract (Work/Supply/Auction/ Service/ Buy/ Empanelment/ Sell)	Supply
Product Category (Civil Works/Electrical Works/Fleet Management/ Computer Systems)	<b>Purchase of computer items and other computer related items through rate contract</b>
Source of Fund (Institute/Project)	IIT Madras
Is Multi Currency Allowed	Yes (INR / USD)
Date of Issue/Publishing	11.11.2019
Document Download/Bid Clarification Start Date	11.11.2019
Bid Clarification End Date and time	18.11.2019 @ 11.00 a.m.
Pre-bid Meeting Date and time	18.11.2019 @ 11.00a.m.
Bid Submission Start Date	22.11.2019 @ 9.00am
Document Download/Bid Submission End Date and Time	02.12.2019 @ 2 p.m
Date and Time of Opening of Technical Bid	03.12.2019 @ 4 p.m.
EMD	Rs. 1,00,000/-
No. of Covers (1/2/3/4)	2
Bid Validity days (180/120/90/60/30)	120 Days
Address for Communication	<b>The Deputy Registrar Stores &amp; Purchase Section IIT Madras Chennai - 600 036 Phone No: 044-2257 8288/8285 Email: <a href="mailto:adstores@iitm.ac.in">adstores@iitm.ac.in</a></b>
Contact details	<b><u>Technical related queries:</u>  M. Irudayaraj Junior Technical Superintendent Computer Centre IIT Madras Chennai - 600 036. Phone No: 044- 2257 4983 Email: <a href="mailto:irudayaraj@iitm.ac.in">irudayaraj@iitm.ac.in</a></b>