Corrigendum-II

Request for Proposal (RFP) for Selection of CPSU/ SPSU for Supply and Installation of Robotic Lab in Secondary Schools in Odisha

RFP No.-OCAC-SEGP-INFRA-0025-2023-23028 Dated 24-04-2023

RFP Chapter No.	RFP Clause No.	RFP Page No.	Clause Details as per RFP	Query/Clarification/ Suggestion	OCAC Remarks
Pre-qualification/ Eligibility Criteria	10	23	The bidder must have submitted the EMD of ₹1 Crore in the shape of Bank Guarantee/Account Payee Demand Draft from any Nationalized / Scheduled Commercial Bank in favor of Odisha Computer Application Centre (OCAC) payable at Bhubaneswar. The EMD should be valid for a minimum period of 90 days from the last date of submission of the Bid.	Being a CPSU EMD may be exempted	No Change
Pre-Qualification Evaluation Criteria	10	22	The bidder must have successfully completed at least two smart classroom/ Robotics Lab project of value not less than the amount ₹30,00,00,000/- (Thirty Crores Only) in Central govt/ State govt. in India in education domain only during last five years preceding from tender release date.	The bidder must have successfully completed at least two smart classroom/ Robotics Lab project of value not less than the amount ₹30,00,00,000/- (Thirty Crores Only) in Central govt/ State govt. in India in education domain only during last Seven years preceding from tender release date.	**Amended As:** The bidder must have successfully completed at least two Smart/Digital classroom/ICT Lab/Robotic lab/IT/ITES in Networking project of value not less than the amount ₹30,00,00,000/- (Thirty Crores Only) in Central govt/ State govt. in India in education domain only during last Seven years preceding from tender release date.
Technical Evaluation Criteria	11	23	a) The Bidder must have successfully completed at least two Smart/Digital classroom/ Robotic lab project of value not less than the amount Rs. 30,00,00,000 /- in Central govt./State govt in India in education domain only during last five years preceding from tender release date	a) The Bidder must have successfully completed at least two Smart/Digital classroom/ ICT Lab/Robotic lab project of value not less than the amount Rs. 30,00,00,000 /- in Central govt./State govt in India in education domain only during last seven years preceding from tender release date	**Amended As:** a) The Bidder must have successfully completed at least two Smart/Digital classroom/ICT Lab /Robotic lab/IT/ITES in Networking project of value not less than the amount Rs. 30,00,00,000 /- in Central govt./State govt in India in education domain only during last Seven years preceding from tender release date

			1. Number of project equals to 3 or more: 10 Marks 2. Number of project equals to 2 or more: 05 Marks	1. Number of project equals to 3 or more: 10 Marks 2. Number of project equals to 2 : 05 Marks	1. Number of project equals to 3 or more: 10 Marks 2. Number of project equals to 2 : 05 Marks
	11	24	b) The Bidder must have experience in Supply and Installation of Smart/Digital classroom/ Robotic labs (single PO of 1500 units) in govt. schools under State govt department/Central govt. in education domain only during last five years preceding from tender release date 1. Number of project equals to 2 or more: 10 Marks 2. Number of project equals to 1 or more: 05 Marks	b) The Bidder must have experience in Supply and Installation of Smart/Digital classroom/ICT Lab/ Robotic labs (single PO of 1500 units) in govt. schools under State govt department/Central govt. in education domain only during last seven years preceding from tender release date 1. Number of project equals to 2 or more:10 Marks 2. Number of project equals to 1: 05 Marks	**Amended As:** b) The Bidder must have experience in Supply and Installation of Smart/Digital classroom/ICT Lab/ Robotic labs (single PO of 1500 units (Smart class)/3500 ICT Lab/ 30000 Nodes (Networking Project)) in govt. schools under State govt department/Central govt. in during last Seven years preceding from tender release date 1. Number of project equals to 2 or more: 10 Marks 2. Number of project equals to 1: 05 Marks
Detailed scope of work	9.3	17	Training of teachers and provision of course material to students	Please clarify regarding the training to be conducted at 01 centralized location or in respective schools.	**Amended as:** Training of School Teachers can be done at school level by deployed Robo Trainers at School level at Regular intervals
Instruction to bidders	3.4	6	The BG in original should be posted/couriered/given in person to the concerned official before the Online Opening of Financial Bid.	Pls confirm the date of submission of EMD.	Before Tender End date.

Legal entity	10	21	As specified under GFR 2017, the bidder must be a Public Sector Undertaking set up by the Centre or State Govt. to carryout I.T. related activities or any Central/State Govt. Organization/PSU which may be notified by the MeitY / MoE / or any other Ministry in the field of IT for such purpose. Relevant supporting documents may be furnished. Note: - Consortium of any kind shall not be acceptable for this project. Any deviation would lead to disqualification or termination of the same. However, as per the State ICT Policy 2022, Clause 8.18, to ensure mandatory local participation. The bidder needs to make collaborative arrangement with local enterprises with minimum 25% for deployment and maintenance components for implementation having adequate experience. The local enterprise should have developed and implemented software projects in the state preferably in Government/PSU sector. **The minimum worth of the software projects execute by the local enterprise in last five financial years should be Rs.5.00 crores.**	The clause may please be amended as : "As specified under GFR 2017, the bidder must be a Public Sector Undertaking set up by the Centre or State Govt. to carryout I.T. related activities or any Central/State Govt. Organization/PSU which may be notified by the MeitY / MoE / or any other Ministry in the field of IT for such purpose. Relevant supporting documents may be furnished. Note: - Consortium of any kind shall not be acceptable for this project. Any deviation would lead to disqualification or termination of the same. However, as per the State ICT Policy 2022, Clause 8.18, to ensure mandatory local participation. The bidder needs to make collaborative arrangement with local enterprises with minimum 25% for deployment and	**Amended As:** As specified under GFR 2017, the bidder must be a Public Sector Undertaking set up by the Centre or State Govt. to carryout I.T. related activities or any Central/State Govt. Organization/PSU which may be notified by the MeitY / MoE / or any other Ministry in the field of IT for such purpose. Relevant supporting documents may be furnished. Note: - Consortium of any kind shall not be acceptable for this project. Any deviation would lead to disqualification or termination of the same. However, as per the State ICT Policy 2022, Clause 8.18, to ensure mandatory local participation. The bidder or its implementation Partner/System Integrator needs to make collaborative arrangement with local enterprises with minimum 25% for deployment for implementation having adequate experience in IT Projects in the state preferably in Government/ PSU sector.

				maintenance components for implementation having adequate experience. The local enterprise should have developed and implemented **IT projects** in the state preferably in Government/PSU sector. "	
RFP Fee	10	22	**10 RFP fee** The bidder must have made a payment of ₹5,600.00 (Five Thousand Six Hundred Only) towards RFP document fee. **Under 6 Fact sheet** The RFP document can be downloaded from the website www.odisha.gov.in or www.ocac.in or https://enivida.odisha.gov.in/. The bidders are required to submit the RFP document fee of Rs 11,200/- inclusive of 12% GST) Eleven Thousand Two Hundred Rupees Only in shape of Bank Draft in favour of Odisha Computer Application Centre and payable at Bhubaneswar from any of the scheduled commercial banks along with the proposal (General Bid) documents.	Pls clarify regarding the RFP Fee.	**Amended as:** The bidders are required to submit the RFP document fee of Rs 11,200/- inclusive of 12% GST) Eleven Thousand Two Hundred Rupees Only in shape of Bank Draft in favour of Odisha Computer Application Centre and payable at Bhubaneswar from any of the scheduled commercial banks along with the proposal (General Bid) documents.

Technical evaluation criteria	11	24	The bidder must have implemented a minimum of 6000 Smart / Digital Classroom/Robotics labs in govt. Schools under State Govt. Department/Central Govt. Department in education domain only during last seven years preceding from tender release date. Total Classrooms – More than 10000- 5 Marks Total Classrooms – More than 6000- 5Marks	The bidder must have installed a minimum of 6000 Smart / Digital Classroom/**ICT Labs/**Robotics labs in govt. Schools under State Govt. Department/Central Govt. Department in education domain only during last seven years preceding from tender release date. Total Classrooms – More than 10000- 10 Marks Total Classrooms – More than 6000 - 5 Marks	**Amended as:** The bidder must have implemented a minimum of 6000 Smart / Digital Classroom/Robotics labs/ IT/ITES in Networking Projects in govt. Schools under State Govt. Department/Central Govt. Department in during last seven years preceding from tender release date. Total Classrooms – More than 10000- 5 Marks Total Classrooms – More than 7000- 5Marks OR Networking Project with Minimum Nodes- More then 45000- 5 Marks Networking Project with Minimum Nodes- More then 30000- 5 Marks OR Total ICT Labs – More than 5000- 5 Marks Total ICT Labs – More than 3500- 5Marks
Project deliverable	12	25	Delivery of Kits and Other equipment at centralized district location-12 weeks Commissioning and Installation of Equipment at schools -08 weeks	The implementation plan may be amended as: Delivery of Kits and Other equipment at centralized district location-**14 weeks** Commissioning and Installation of Equipment at schools -**16 weeks**	**Amended as:** Delivery of Kits and Other equipment at centralized district location-**16 weeks** Commissioning and Installation of Equipment at schools -**10 weeks**
Payment terms	14	29		As per RFP , Payment will be done zone wise and in total 03 zones are mentioned in RFP. It is requested that in place of	No Change

				zone, payment should be made in lot of 50 schools for cash flow maintenance.	
Payment terms	14	29		No payment terms defined for opex part. It is requested that opex payment terms may please be mentioned.	OPEX will be paid in QGR Bases (20 X QGR)
Specifications of Robotic Kits and Equipment	18.13	60	1. Hybrid Humanoid Robot	It is difficult for smaller kids to use a 5 ft robot. Also, it will come with a risk of physical damage to students as steel body is heavy.	No Change
		60	WMR	All the functionalities mentioned in the require robot can be implemented on a small frame without hampering the learning outcome.	No Change
		60	5 Ft Height High torque, motors Industry grade wheels, Fixed hand ,Mild steel Body, Powder coated with white and blue color , Wireless Controlled , OCU, Lead Acid Battery, Fixed Head, 12 Facial Expressions, On/Off Switch, Battery level Indicator, Robot Battery Charger.	So, we suggest a frame of 1 ft and above, since we are using a small frame, we can use a sturdy light weight material instead of heavy metal steel frame for convenience of student.	No Change
		61	1. Robot DIY Kit 10.0 (10 Robots for 10th Standard)	Since all 5 kits are having almost same specification and material also, at a time only same grade student will use the kits. Thus requirement of same kits for different grades will not have any impact. Suggested qty of kits will suffice learning outcome for	No Change

				100 students at same time. **We suggest quantity of the kits should be 5 instead of 10**	
	18.13	61	2. Robot DIY Kit 9.0(10 Robots for 9th Standard)	quantity of the kits should be 5 instead of 10	No Change
	18.13	61	3. Robot DIY Kit 8.0(10 Robots for 8th Standard)	quantity of the kits should be 5 instead of 10	No Change
	18.13	62	4. Robot DIY Kit 7.0(10 Robots for 7 Standard)	quantity of the kits should be 5 instead of 10	No Change
	18.13	62	5. Robot DIY Kit 6.0(10 Robots for 6" Standard)	quantity of the kits should be 5 instead of 10	No Change
	18.13	63	19. Plastic Box of size 30 X 20 X 25 CM	Since all the kits and components will be packed in plastic boxes for easy storage, **we suggest you to reduce the number of spare plastic boxes to 20**.	No Change
	18.13	63	20. General purpose wheel of 7x2 cm, 6mm	Since all the DIY kits already include wheels in 2 qty each, spare 40 wheels won't be of much use. **So we suggest you to make the quantity as 20 instead of 40.**	No Change
	18.13	63	21. General purpose wheel of 10X 2 Cm, 6 MM	Same as above reason **suggested quantity of 20**	No Change
	18.13	63	2 Metal chassis	As this is recurring material for every year, 40 metal chassis for a year will be huge quantity **so we suggest you to reduce it to 20**	No Change
	18.13	63	3 F - F Connector cable	As this is recurring material for every year, 1000 connectors a year will be huge quantity **so we suggest you to reduce it to 400**	No Change
			4 M - M connector cable		No Change
			5 F- M connector cable		No Change
	18.13	64	6 Soldering lead	As this is recurring material for	No Change

			7 Soldering flux	every year, 40 packets for a year will be huge quantity so **we suggest you to reduce it to 10**	No Change
	18.13	64	13 DPDT relay 8 pin 5 v	Same as above reason, suggested quantity is 20	No Change
	18.13	64	14 DPDT Switch	Same as above reason, suggested quantity is 30	No Change
	18.13	64	15 DPDT Box - 3 Switch	Same as above reason, suggested quantity is 10	No Change
	18.13	64	22 Double sided tape 50	Same as above reason, suggested quantity is 20 each	No Change
			23 Black insulating tape 50		No Change
			24 Red insulating tape 50		No Change
			25 Paper Cutter 40		No Change
	18.13	64	28 Flex Glue 20 ML 50 bottles	Same as above reason, suggested quantity is 20 bottles	No Change
	18.13	64	30 3D printing filament	Storing huge quantity of filament for a longer time will degrade its quality which eventually will affect the 3d printer so **suggested quantity is: 5**	No Change
	18.13	64	2 Screw Driver set	Suggested quantity: 5	No Change
	18.13	64	4 Hammer 5	Suggested quantity: 2 each	No Change
			5 Hacksaw 5		No Change
	18.13	64	7 Soldering Iro8-6n 10	Suggested quantity: 5 each	No Change
			8 Soldering iron stand 10		No Change
	18.13	64	9 Pliers 5	Suggested quantity: 2 each	No Change
			10 Long nose pliers 5		No Change
			11 Long needle nose mini pliers 5		No Change
	18.13	64	12 Digital Multi meter 10	Suggested quantity: 5 each	No Change
			13 De Soldering gun 10		No Change

			14 Glue gun 10		No Change
	18.13	64	16 Variable DC power supply unit 5–25-volt output 10	All kits contain rechargeable batteries, such power supplies are not even used in engineering colleges. Such power supply device comes with very high cost and at the end it is not useful to students. Thus, this will not be in any use, **therefore we suggest reducing the qty to 2 Nos**	No Change
			2 Laptop	Suggestive quantity of laptop: 1 Nos	No Change
	18.13	65	1 Table (SS frame 8/4 ft size with standard ht. top blue sun mica on 20 mm ply)	We have visited many governments secondary education schools where we found room size is not enough to accommodate a table of size 8*4 feet therefore **we suggest to make size of table 4* 2**	No Change
	18.13	65	2 Stainless steel round stools for each student with SS frame, blue color foam sheet)	As per table size suggested above total no of stools will be accommodate is 20 so **we suggest to make the quantity of the stools as 20**	No Change
Onsite Support	9.8.2	19	Deploy Five Hundred (500) Nos of Robo Trainers (1 for each School) for all Schools with Any Diploma/ITI Robotics skilled certified Personal.	Deployment of such huge man power at every school with the mentioned qualification will be a huge task to complete taking in account of the qualified personal working in such new age field. Cost of each qualified trainer with relevant	No Change

				experience will be not less than 30,000/- per month including TA / DA and PF, ESIC in account.	
				We suggest to have trainers block wise, one trainer will be able to easily manage 5-10 schools which will reduce the quantity of trainers requirement to 100 Nos.	No Change
Pre-qualification / Eligibility Criteria	10	21	Documents of Local bidder to be submitted as per formats attached on 8.1.3 form PQ-4	Kindly Remove this Documents.	**Amended as:** Documents of Local bidder to be submitted as per formats: 1. The bidder must be a company registered in India under Indian Companies Act 1956/2013 and must have GST registration & up- to-date Income Tax Return, PAN Number as on 31st March, 2022 and must be having business operations in India for the last five years as on date of bid submission. 2. The average Net worth of the bidder during the last 3 financial years ending with 2021-22 (i.e. 2019-20, 2020-21 & 2021-22) should be positive from IT/ITeS. 3. The local bidder must have successfully supplied minimum 3 Nos. of IT Projects with in the State to Government Dept./PSU.
Fact Sheet and Evaluation & Tabulation of Financial Bids	6 & 15.3	10 & 34	Least Cost Selection (LCS)	Setting up a robotics lab in a school requires a certain level of expertise and knowledge in the field of robotics. Technical experts with relevant qualifications and experience	**Amended as:** Quality -Cost based Selection Evaluation (QCBS) shall be used to select the bidder. The bidder is required to submit the bids General (Pre-qualification), Technical & Financial bid in eNivida portal (https://enivida.odisha.gov.in). Technical

				are better equipped to understand the complexities involved in the process of setting up a robotics lab. This robotics lab requires high level of Robotics kit, components such as humanoid robot, hexapod robot, grade wise kits, 3d printing and much more, experts can also advise on the appropriate safety measures, including handling and maintenance of equipment, which is essential to ensure the safety of students and teachers. Furthermore, technical experts are better equipped to design the curriculum for the robotics lab, which must align with the school's educational objectives and requirements. They can also provide training to teachers on how to teach robotics and how to use the equipment effectively, thereby ensuring that the robotics lab is used to its full potential. While cost is an important consideration, it should not be the only factor in choosing who sets up the robotics lab. Ensuring proper kits, training and providing quality trainers may cost higher but in long	bid of those bidders who qualify in General Bid shall be opened. Financial bid of those bidders who qualify in Technical Bid by scoring 80% mark or above shall be opened. After opening and scoring, the Financial proposals of responsive technically qualified bidders, a final combined score shall be arrived at by giving 80%: 20% weightages to the scores of the technical and financial proposals. The proposal with the highest weighted combined score (quality and cost) shall be selected. OCAC reserves the right to award the contract to more than one bidder, at L1 price in the interest of speedy implementation of the Project. **Evaluation & Tabulation of Financial Bids** a) The Financial Bids of the technically qualified bidders (those have secured equal or more than 80% of mark in technical evaluation) will be opened on the prescribed date in the presence of bidders' representatives. b) Financial Evaluation shall be done on QCBS Method, the lowest evaluated Financial Proposal will be given the maximum financial score (Sf) of 20 points. The financial scores (Sf) of the other Financial Proposals will be computed by comparing the proposed cost as per the Financial Bid. c) Proposals will be ranked according to their combined technical (St) and financial (Sf) scores out of maximum weights 100. Total Score= St (Technical Score) + Sf (Financial Score

				term state, schools and students will be beneficiary as robotics is the future and this is one big step by Odisha to take this on such high scale. Bidder may quote low which will have long term impact on quality of equipment's and trainers as costing will be recovered from the project only. Therefore, it is essential to choose a qualified and experienced technical expert for setting up a robotics lab in schools rather than choosing someone solely based on their lowest quote. Thus, we suggest to make it as QCBS (80:20) with 80% weightage to technical marks and 20% weightage to financial marks to that quality bidder gets the work and it reaches to the beneficiary as it is intended. As such volume of robotics lab are being established for the first time not only in Odisha but for entire India this will be 1st ever biggest project. No bidder will have experience of handling this volume.	d) The bidder achieving the highest combined technical and financial score will be invited for agreement.
Pre-Qualification Evaluation Criteria	11	23	The Bidder Have Submitted EMD Amount 1 Crore in the shape of Bank Guarantee/Account Payee Demand Draft From	We request to reduce the EMD Amount to Rs 50 Lakh.	No Change

Fact Sheet	PBG	10	Performance Bank Guarantee (PBG) @ 3% of the Cost of the Project	We request to reduce the PBG Amount @ 2% of The Project Value.	No Change
Pre-Qualification Evaluation Criteria	1	21	d. Documents of local bidder to be submitted as per formats attached on 8.1.3 FORM PQ-4. Along with Work Order + Project completion / Completion certificate / Partial completion Certificate (Milestone completion Certificate)	Kindly Remove this Clause as this clause is not applicable.	No Change
Warranty & Support	9.4	17	The bidder has to provide Three (03) Year Warranty Support Period from the date of Final Acceptance Test (FAT) of the Project and Two (02) Years Comprehensive Annual Maintenance Support (CAMS) after completion of initial ONE Year Warranty Support Period. The bidder should cover the warranty for 5 years from date of Go- Live.	Generally, OEM'S provide one Year Warranty. Hence it is requested to allow the bidder to provide One year warranty support from Final Acceptance Test (FAT) of the project. It is also requested to remove the 2-year AMC part.The bidder should cover the warranty for 1 year from date of Go- Live.	No Change
Warranty & Support	13.2	28	During Warranty & Support Duration	Schools are located at very remote place and technical components requires repairs and troubleshooting at the school location by deployed engineer.	No Change
				Usually such repair / troubleshooting phase goes till 4 to 5 days and if the hardware still doesn't work, system integrator shall prepare for the replacement.	No Change

			Repair / Replacement of Failure hardware device by System Integrator	In case if the hardware needs to be procured or needs to manufacture, it may need some time. Thus we propose relaxation in the penalty.	No Change
			Penalty of Rs. 50 per school from 4th Working day onwards till 10th day	Downtime of an equipment	No Change
				<= 10 Days - No penalty	No Change
				> 11 day to 22 days - Rs 20 per school from 11th working day till 22nd working day	No Change
				> 23 days - Rs 50 per schools from 23rd day till problem is resolved	No Change
				Penalty should not be charged on equipments like 3D Printer, Laptop, Table, Stools, Variable DC Power Supply, Computer Chair.	No Change
Payment Terms	14	29	Delivery of Kits and Other equipment at centralized district location - 70%	This project requires high level of research to develop high end robots and kits mentioned in the tender document.	**Amended as:** Delivery of Kits and Other equipment at centralized district location - 75%
			Commissioning and Installation of Equipment at schools - 20% & Go-Live and Sign Off - 10%	Thus we suggest following payment schedule 10% of the payment on issuance of purchase order 80% payment on Delivery of Kits and Other equipment at centralized district location. The bidder may invoice the above 80% in 4 parts as per their convenience and mobility of funds. 5% payment on Commissioning and Installation of Equipment at	Commissioning and Installation of Equipment at schools-15% & Go-Live and Sign Off - 10%

				schools 5% payment on Go-Live and Sign Off	
Financial Bid	18.9 (A)	55	Consumables per Lab - Components (Recurring for every year)	Since the project length is 5 years and rates may change due to unforeseen reasons. Already the consumable quantities are very high as we have suggested to reduce above to help wastage of such huge supplies at schools and funds to be utilized.	No Change
				What will be the payment schedule for the consumable supply?	Already mentioned in RFP.
				Please consider of 2% rise in cost every year to accommodate any change in cost including transportation, inflation, cost of production of goods etc.	No Change
	18.9 (B)		Manpower cost for 500 Nos of Robotic Labs.	What will be the schedule of the cost of the trainers deployed at the school / block / district level (as suggested above to reduce the requirement of the trainers)	No Change
Brief Scope of Work	9.3	16	At least 2 fire extinguishers must be placed at strategic locations inside the Robotics LAB.	Please confirm if fire extinguishers are part of bidder's scope. If yes, what are the specifications of fire extinguishers	**Amended as:** Powder Type Fire Extinguisher 2KG
Technical Evaluation Criteria	6	24	The bidder has to provide demonstration of robots and their features.	Would request to specify Face to face / Physical DEMO of Robots under Technical Evaluation, Being a wider	**Amended as:** The bidder has to provide Face to face / Physical DEMO of Robots and their features.

				concept, quality of the Robots cannot be judged during online presentation and DEMO.	
Technical Evaluation Criteria	7	24 - 25	Presentation on the proposed solution capturing the major features: a. Understanding of the project b. Detailed work-plan and methodologic. c. Proposed Mechanism of Project Monitoring d. Operation & Maintenance Support plan Demonstration of previously executed projects i.e., 'Monitoring/Ticketing tool, incident tracking system, incident closure mechanism, for evaluation of the Bidder's capability on Operations & Management.	Being a wider concept, The Depth & understanding of the Robotics solution cannot be judged during online presentation. Hence, it is suggested to conduct a physical / Face to face DEMO & presentation of the solution to the Technical Committee.	No Change
Brief scope of work	9	14	DIY Robotics KIT 7.0: Project Names (Without Programming)	The projects under Class 7 DIY Robotics Kits cannot be developed without Programming . Hence , Please Change it to With Programming.	**Amended as:** DIY Robotics KIT 7.0: Project Names (With Programming)
Training & Handholding	9.5	18	ix. The Bidder has to develop a training manual for each of the Robotics LAB activity for the teachers which should act as a ready reckoner for reference by the teachers at school level.	The training Manual need to developed in Odia & English , Though the entire project will be deployed in the Odia Medium Schools	**Amended as:** The Bidder has to develop a training manual for each of the Robotics LAB activity for the teachers in **Odia & English** language, which should act as a ready reckoner for reference by the teachers at school level.

Specifications of Robotic Kits and Equipment	18.13	64	**Specification for Laptop**	**Laptop Specification**	
			Specification for Laptop	**Item**	**Specifications**
				Chipset	Intel/ AMD SoC (System on Chip) platform or better
				Processor	Latest 11th or higher, Generation Core I3/Ryzen 3
				Memory	4 GB RAM DDR4 @2933 Mhz
				DIMM Slots & Expandability	2 DIMM slots with 16 GB DDR 4 expandability
				Storage	256Gb SSD
				Audio	Stereo speakers, 2W x2, Dolby® Audio
				Operating System	Microsoft Windows 11 Professional factory pre-loaded
				Wi-Fi & BT	802.11ac 2x2 Wi-Fi + Bluetooth 5.0
				Web camera & Stand	Inbuilt webcam with privacy shutter, fixed focus
				Ports	1x HDMI,1x microSD card reader,1x Ethernet (RJ-45),1x Headphone / microphone combo jack
					2 x USB 3.2,1x USB-C 3.2
				Security	Hardware TPM 2.0
				Manageability	Drivers should be available on OEM Website for download
				Certifications	ENERGY STAR 8.0 /ROHS/ Epeat India/ TCO certified/ MIL Standard
				Display	14.0" FHD (1920x1080), IPS Panel/Anti Glare/ Non touch
				Warranty	5 Years onsite warranty with battery & Adapter
				Battery Backup	3 Cell battery with 48Whr or more capacity
				Carry Case	OEM carry Bag or Back pack

Note: Last date of submission of bid has been extended to 02/06/2023 till 03:00 PM.