OFFICE OF THE REGISTRAR :: DIBRUGARH UNIVERSITY
DIBRUGARH :: ASSAM
PIN: 786 004

BID DOCUMENT

FOR

NAME OF THE WORK: Supply, Installation and Commissioning of Computer Cluster and Online UPS for Department of Chemistry, Dibrugarh University

TENDER No: DU/NIT-2021/File-III/55 dated 27.04.2021.

CUT-OUT SLIP

NAME OF THE WORK: **Supply, Installation and Commissioning of Computer Cluster and Online UPS for Department of Chemistry, Dibrugarh University**

TENDER NO. : **DU/NIT-2021/File-III/55 Date: 27.04.2021**

SUBMISSION DUE DATE & TIME: 17.05.2021 up-to 11.30 A.M.

FROM: **TO:**

NAME: THE REGISTRAR
ADDRESS   DIBRUGARH UNIVERSIITY
                                                                    DIBRUGARH, ASSAM

(To be pasted on the outer envelope containing "Technical"& "Commercial" bids

OFFICE OF THE REGISTRAR :: DIBRUGARH UNIVERSITY :: DIBRUGARH

No. DU/NIT-2021/File-III/55   Date: 27.04.2021

Tender Notice

Sealed Tenders are invited from reputed manufactures/authorized dealers/suppliers for **Supply, Installation and Commissioning of Computer Cluster and Online UPS for Department of Chemistry, Dibrugarh University**. Detailed specification of the items, terms & conditions etc are given below. **Last date of submission of Tender as per annexure with all relevant papers is *17.05.2021 up-to 11:30 A.M.*** to be submitted at the Registrar's Office, Dibrugarh University, Dibrugarh, Assam.

Availability of Bid papers	From 27.04.2021
Last date for receipt of Bid	17.05.2021 upto 11:30 A.M.
Time & Date of opening of Bid	17.05.2021 at 02:30 P.M.
Place of opening of Bid	Office of the Registrar, DU
Cost of Tender Document	1000/- Non refundable
EMD	2.5 % of the Tender value

The tender should be submitted in two separate sealed envelopes *i.e.* **Part - I** TECHNICAL BID and **Part – II** FINANCIAL BID. The technical bid shall be opened on above mentioned date and time and the financial bid of only those bidders who qualify in technical bid shall be opened on the same date or at a later date which shall be intimated to the tenderer whose technical bid are found to be valid. Dibrugarh University reserves all the rights to reject any or all the tenders without assigning any reason thereof.

Sd/-
Registrar i/c
Dibrugarh University

Copy to:
1. The Deputy Registrar (F&A) i/c, D.U. for information.
2. Dibrugarh University Website
3. Notice Board
4. Office File

Sd/-
Registrar i/c
Dibrugarh University

Part A - Terms and Conditions
Part B - Specifications

PART A - TERMS AND CONDITIONS

GENERAL INFORMATION

The tender bids duly complete in all respects, along with the necessary documents should be submitted to the Registrar, Dibrugarh University. The Technical Bids so received, shall be opened on *17.05.2021at 02:30 P.M.*in the Office of the Registrar, Dibrugarh University in the presence of the representatives of the bidders. The Financial bids of the Tenderers shall be opened on the same date or at a later date to be intimated to the tenderers whose Technical Bids are found to be valid. Right to reject any or all Tenders, without assigning any reason thereof is reserved by Dibrugarh University.

➢ **ELIGIBILITY CRITERIA FOR PARTICIPATING IN THE TENDER**

1. The bidder must have local contact / service center (Office/Dealers etc.) situated in Eastern part of India for at least three years. The same must have a well-trained team of Service personals (details needed to be enclosed).

2. The Bidder should have an experience of supplying, installing & maintaining 2 Nos. of High Performance Cluster Computing (minimum 100 Cores) in any Government Institutes/PSUs.

3. The bidder should submit an Undertaking confirming that they will maintain and provide after sales support for the entire warranty period.

4. The Servers whose Product has been quoted should have at least Three entry in Top 100 in the list for world's fastest super computers (refer http://www.top500.org).

5. The Server OEM should be enlisted within top 3 manufacturer as per the Latest IDC report.

6. OEM should be an established vendor with presence in India for the last 3 years.

7. The Data sheets documents and technical documents submitted should be available on the global websites of the respective manufacturer and the URL links to the respective documentation should be provided in the compliance statement. Any document which is not available on the Global website of the OEM would be treated as invalid document submitted and noncompliance against the technical specification asked in the tender.

8. Bidder should provide tender specific authorization letter from OEM by mentioning NIT no in OEM letterhead with the technical bid.

9. The Bidder should have an annual Turnover of minimum Rs. 1,50,00,000 /- (One Crore Fifty Lakhs) in last 3 (three) Financial years .

Terms and Conditions of Supply:

1.All the manufacturers/ distributors/ stockists should also give a brief profile about their company and the facilities available with them of the quoted items. Their turnover and important firms/ Government Institutes/ P.S.U.s etc. to which they are supplying quoted items, should also be mentioned.

2. The last date and time for the acceptance of the bids is **17.05.2021 up-to 11.30 A.M.**

3. Suppliers shall submit the following documents along with their quotations:

(a) VAT/TIN/GSTRegistration No.

(b) Technical specifications offered by the Supplier.

(c) Technical compliance table

(d) Technicalliterature regarding the offered products including diagrams.

4. The rates should be mentioned in the **Schedule** attached with the Tender Document. Each page of the tender shall be signed in full and stamped with the seal by the supplier. The supplier must clearly state in what capacity he or she is signing the Tender.

5. The supplier shall submit the tender in two envelopes. The first envelope (Technical Bid) shall contain all the documents referred to in **2 above** and sealed. The second envelope (Commercial Bid) shall contain the **Schedule,** in which the supplier shall register the rates of supply. The second envelope shall also, likewise, be sealed. Both the envelope then should be put together, and should be sealed in an envelope on which the cut out slip provided as part of the tender document should be pasted, and should prescribe time and date. The Technical Bid shall be opened first to ensure that suppliers have submitted all the requisite documents. If the Technical Bids are not in order or are deficient in some respect, the commercial bids in respect of such tenders shall not be opened. The date and time of opening the financial bids shall be announced one day after opening all the Technical bids.

6. Supplier should read carefully all the instructions and terms and conditions, etc before registering rates in prescribed schedule of the tender. Taxes and duties etc. should be shown separately.

7. The Technical Documents shall be opened, at *02:30 P.M. on 17.05.2021*or on the next working day if the offices of the University remain closed due to any reason

8. Technical specifications of the instruments/equipments are given in **Annexure** to these papers (Part B).

9. The delivery and installation should be completed within 1 month or as specified from placing of the order. No extension shall be granted to the contractors/suppliers for the period of delivery, under any circumstances.

10. If the supplier fails to deliver the article as per the delivery schedule, the University shall be free to procure the balance/undelivered supply, at the risk and cost of the supplier, from other such suppliers.

11. The goods, articles, materials supplied by the supplier shall be accepted after inspection by an officer

authorized by the competent authority. No articles/materials which do not conform to the specifications laid down in the terms and conditions or damaged in transit shall be accepted.

12. The bills of the suppliers shall be paid by the University after all the materials/articles/equipments have been received and installed, inspected as above.

13. Vendor must submit Compliance statement in tabular form comparing each specification of the quoted item with that given in the Tender Document **Part - B**.

14. The warranty period shall be for minimum one year or may be more as offered.

15. The tendering firm must provide proof of documents for executing similar works earlier.

16. In the event of any breach of the terms and conditions of the supply, the University may terminate the contract placed with the supplier and forfeit the security deposit of the supplier.

17. Whether OEM or Authorized Distributor/ Dealer a letter or a valid certificate of authorization of manufacturer shall be enclosed.

18. Copy of product literature and catalogue, testing report, BEE rating, ISO etc.

19. The quantity as mentioned at Part-B (Specifications) may be increased or decreased at the time of placing Order as per requirement.

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

21. This tender document is not transferable.

Note:

(a) Tenderers are advised to read carefully the Terms and Conditions of supply before recording the rates in this Schedule.

(b) No erasures or overwriting shall be allowed, unless they are authenticated under the full signature and the seal of the tenderer.

(c) The University reserves the right to:

(i) Accept/reject any/all tenders without assigning any reason thereof.

(ii) Revise the quantities at the time of placing the order without change in the rate quoted by the bidder.

(iii) Add/modify/relax or waive any of the conditions stipulated in the tender document whenever deemed necessary

(iv) Award the contract to one or more tenderers for the items covered by the tender.

ITEM No	DESCRIPTION OF GOODS WITH DETAILS OF SPECIFICATIONS	Unit Price	Taxes	Qty.	Total Amount
1					
2					
3					

Signature of the Tenderer
Seal of the Firm

Part - B
Specifications

Supply, Installation and Commissioning of Computer Cluster and Online UPS at Dibrugarh University:

Sl No.	Particulars	Qty.
1.	**Master Node**	01

Parameter	Minimum required features
Make & Model:	
Processors	2 x Intel Xeon Silver 4110, 2.1 GHz,11 M Cache , HT,8C/16T (85W)
Chipset	Latest OEM chipset supporting an optimized for the above processor
Memory	16 DIMM Slots, 32GB (1 x32GB) DDR4 Advanced ECC memory and upgradable to 1 TB DDR4, 2933MHz RAM or higher
Hard Disk Drives	7 x 2.4TB SAS 12G 10K RPM SFF(2.5″) HDD
HDD bays	HDD bays supporting SAS, SATA, SSD drives
I/O slots	Minimum 3 x PCI-Express 3.0 slots on board without using any riser card.
RAID levels	Integrated RAID Controller, 1GB Cache, Support for RAID 0,1 ; support for RAID 5
Network Interface	1 x On-Board LOM 1GBE (Dual Port) & 1 x Dual Port 10G Base-T card
Graphics controller	Integrated Graphics with at least 16MB Video Memory
Server Management	OEM embedded controller and Server Management Tool from same OEM
Remote Management	System remote management should support browser based graphical remote console along with Virtual Power button, remote boot using USB/CD/DVD Drive
Ports	Min 3 USB 3.0 ports
Power supplies	Redundant Platinum rated Power Supply (at least 800 Watts each) 94% efficient to sustain above configuration.
Cooling	Hot plug and redundant fans (Non Cabled)
Certification	The server OEM must be ISO-14001
	The Server manufacturer should be enlisted within top 3 manufacturer as per the Latest IDC report
Operating Systems supported	Microsoft Windows Server, Novell SUSE Linux Enterprise Server, Red Hat Enterprise Linux, VMware, FCC, UL, ROHS
Warranty	3 years onsite warranty with Back to Back support from OEM

Sl No.	Particulars	Qty.
2.	**Compute Node**	03

Parameter	Minimum required features
Processors	2 x Intel Xeon Gold 6126, 2.6 GHz,19.25 M Cache , HT,12C/24T
Chipset	Latest OEM chipset supporting an optimized for the above processor
Memory	16 DIMM Slots, 128GB (4x32GB) DDR4 Advanced ECC memory and upgradable to 1 TB DDR4, 2933 MHz RAM or higher
Hard Disk Drives	2 x 1.8 TB SAS 12G 10K RPM SFF (2.5in)
HDD bays	HDD bays supporting SAS, SATA, SSD drives
I/O slots	Minimum 3 x PCI-Express 3.0 slots on board without using any riser card.
RAID levels	Integrated RAID Controller, 1GB Cache, Support for RAID 0,1 ; support for RAID 5
Network Interface	1 x On-Board LOM 1GBE (Dual Port) & 1 x Dual Port 10G Base-T card
Graphics controller	Integrated Graphics with at least 16MB Video Memory
Server Management	OEM embedded controller and Server Management Tool from same OEM
Remote Management	System remote management should support browser based graphical remote console along with Virtual Power button, remote boot using USB/CD/DVD Drive
Ports	Min 3 USB 3.0 port
Power supplies	Redundant Platinum rated Power Supply (at least 800 Watts each) 94% efficient to sustain above configuration.
Cooling	Hot plug and redundant fans (Non Cabled)
Certification	The server OEM must be ISO-14001
	The Server manufacturer should be enlisted within top 3 manufacturer as per the Latest IDC report
Operating Systems supported	Microsoft Windows Server, Novell SUSE Linux Enterprise Server, Red Hat Enterprise Linux, VMware, FCC, UL, ROHS
Warranty	3 years onsite warranty with Back to Back support from OEM

Sl No.	Particulars	Qty.
3.	10G Switch	01
	Minimum required specification	

Physical Interface	12 # 100M/1G/2.5G/5G/10G RJ-45 Copper auto-sensing ports
	2 # 10G SFP+ (shared) uplink ports
Performance	Packet buffer memory (Dynamically shared across only used ports): 3MB
	Forwarding modes: Store-and-forward
	Bandwidth: 240 Gbps full duplex
	MAC Address database size (48-bit MAC addresses): 32K
	Packet forwarding rate (64 byte packet size): 178.6 Mpps
	Jumbo frame support: Up to 9K packet size
	Acoustic noise level @ 25° C (dBA) (ANSI-S10.12): Idle : 29.13dB@25dC/Full load :40.85dB@50dC
	Mean Time Between Failures (MTBF) @ 25° C: 1,113,477Hrs
L2 Services	VLAN (# Supported): 64
	Port-based VLANs (physical)
	IEEE 802.1Q VLAN Tagging
	Broadcast, multicast, unknown unicast storm control
	Static Manual LAGs (Port Trunking)
	LACP
	# of Static LAGs / # of members in each LAG: 8 LAGs with max 8 members in each LAG
	IGMP snooping (v1, v2, and v3)
	Block unknown multicast
	Static multicast router port
Quality of Service (QOS)	Port-based rate limiting: Ingress and egress
	Port-based QoS
	IEEE 802.1p COS
	IPv4 DSCP
	IPv4 ToS
	Weighted Round Robin (WRR)
IEEE Standards Supported	IEEE 802.3 Ethernet
	IEEE 802.3u 100BASE-TX
	IEEE 802.3ab 1000BASE-T
	IEEE 802.3x Full-Duplex Flow Control
	IEEE 802.3az Energy Efficient Ethernet (EEE)
	IEEE 802.3an 10GBASE-T
	IEEE 802.3bz 5Gbps and 2.5Gbps Ethernet Over Copper Twisted Pair Cable
	IEEE 802.3ae 10-Gigabit Ethernet Over Fiber
	IEEE 802.3z Gigabit Ethernet 1000BASE-SX/LX

Management	Password management
	Web browser-based graphical user interface (GUI)
	Firmware upgrade: HTTP (Web GUI)
	Config file transfers (backup, restore): Web GUI
	Cable test utility
LEDs	Per port: Speed, Link, Activity
	Per device: Power, Fan
Physical Specifications	Dimensions (W x D x H): 328 x 204 x 43 mm (12.9 x 8.0 x 1.7 in)
	Weight: 2.51kg (5.54 lb)
Power Consumption	Power Supply: Fixed internal PSU, 100-240VAC, 50-60Hz
	Max power (worst case, all ports used, line-rate traffic) (Watts): 76.56W
	Min power (link-down standby) (Watts): 36.5W
	Heat Dissipation (max and min) (BTU/hr): Max: 261.38 BTU/hr Min: 164.2 BTU/hr
	Fan(s): 2
Environmental Specifications	Operating temperature: 0° to 50°C (32° to 122°F)
	Storage temperature: –20° to 70°C (– 4° to 158°F)
	Operating humidity: 90% maximum relative humidity, non-condensing
	Storage humidity: 95% maximum relative humidity, non-condensing
Certifications	47 CFR FCC Part 15, SubpartB, Class A
	AS/NZS CISPR 32:2013, Class A
	VCCI-CISPR32:2016
	CNS 13438
	CB mark, commercial
	UL/cUL Listed (UL 60950-1)/CAN
Warranty and Support	True Lifetime Hardware replacement warranty
	Lifetime free latest firmware support
	Replacement with New Product Only No refurbished Products.

Sl No.	Particulars	Qty.
4.	**24 port 1G switch**	**01**
Parameter	Minimum required features	
Switch	24 port managed 1 Gigabit Switch	
Warranty	3 years comprehensive onsite warranty	

Sl No.	Particulars	Qty.
5.	10 KVA online UPS with 1 hr backup	01

Parameter	Minimum required Specification
Make & Model	
Capacity (in kVA / kW)	10.0 kVA/8.0 kW Single Phase Input / Single Phase Output
Technology and Capability (1Ph Input & 1Ph Output)	a) True Online configuration with double conversion UPS with Micro Control Based
	b) UPS should be designed at Rated PF of 0.8 Minimum (Isolation transformer should be provided on the input side of the UPS systems), Input Voltage range should be minimum 160-300 V AC
Input	
Input facility -Phases / Wires	1-Phase / 2-Wire & Gnd (Phase & Neutral + Ground)
Input Voltage Range	230V 160 - 300V AC (On 100% Load) 160 - 300V AC (On 100% Load) 110 -300 VAC (On 50% Load condition)
Input Power Factor	0.99 on full load
Input Current Harmonic Distortion (THDi)	< 10%
Generator Compatibility	Compatibility to genset supply required
Output	
Nominal Output voltage	230 V
Output Voltage Regulation	±1%
Nominal Output Frequency	50Hz ± 0.1 Hz
Output Frequency Regulation	47.5 to 52.5Hz
Output Wave Form	Pure sine wave
Output Voltage Distortion (THDv)	<2% Linear Load <5% Non Linear Load
Crest Factor	3:1
Efficiency	
AC/AC (overall efficiency) (Double Conversion)	Up to 92%
Overload capacity	
105 - 110%	3 min
111 - 130%	30 sec
Battery Backup	
Battery Bank Voltage	192-240V DC
Battery Bank Van	15300 VAH min for 1hr backup

Batteries Type (VRLA)	Sealed Maintenance Free (SMF) - 12V Cells
Battery Makes	Amara Raja (Quanta make) / Exidepowersafe / Panasonic

Communication	
RS232	Available
Intelligent slot	Optional - SNMP
Operating temperature	0~40°C Continuous
Electrical	
Input terminal	Input Breaker + Terminal
Output terminal	Terminal
Features	
Converter mode	Available
Bypass parameters configurable	Available
Display	LED + LCD Display
Mechanical	
Ingress protection	IP 20
Mandatory Requirement	
Safety	EN 62040-1
EMI / EMC	EN 62040-2
Performance	IEC 62040-3
Certification	CE
Certification	ISO 9001 : 2008; ISO 45001:2018
RoHS	Yes
Warranty	2(Two)Years onsite warranty with Battery

Sl No.	Particulars	Qty.
6.	**KVM Switch**	**01**
Minimum required features		
Minimum of 16 ports		
Connect computers via PS/2 and/or USB.		
Supports Windows, Linux, Mac OS9/OSX, Sun Microsystems.		
On-Screen-Display (OSD) & Cascade Chain functions.		
OSD with intuitive menus for quick and effective navigation.		
Advanced user profiles and configurable OSD hot key combinations		
Multilingual OSD: English, France, German, Spanish, Italian, Russian, Simplified Chinese, Japanese		
Support resolution up to 1920 x 1080		
From a single console. Cascaded units do not need special configuration.		
Hot-pluggable: all devices connected to KVM can be added or removed at any time without shutting down the devices.		
Auto Scan video for effortless monitoring		
Easily switch between connected devices with: Hardware Push Button, Hot-Keys on PS/2 and/or USB keyboard with OSD menu.		
Hotkey combination: Scroll-lock, Cap-lock, Num-lock, Alt, Ctrl & Win		

Multi lingual on screen display menu
Supports LED display for PC and/or server status monitoring.
Enable/disable beeper during channel switching.
Rack mountable in 19″ rack (1U).
Shock : 10G acceleration (11ms duration)
Operating temperature : 0 to 55°C degree , Storage temperature : -5 to 60°C degree
Operating humidity : 90%, non-condensing, Storage humidity : 90%, non-condensing
DC power options available : 12V / 24V / 48V / 110 ~ 125V
Power consumption: Max. 24W
All connecting cable to nodes (min8) should be provided.
Safety approval : CUL, FCC & CE certified
Warranty: 3 Years onsite Comprehensive warranty

Sl No.	Particulars	Qty.
7.	**Rack Mountable Console**	**01**
Parameter	Minimum requires specification	
Rack Console	Form factor 1 U - 17″ or higher Rack Mountable Console (with keyboard & mouse attached to the monitor), Native resolution 1440 x 900, Brightness (cd/m²) 300, Contrast 1000: 1, Environment Operating temperature: Storage temperature : -20 to 60°C degree, Safety FCC, UL, CE & ROHS certified, 3 Years onsite Comprehensive Warranty.	

Sl No.	Particulars	Qty.
8.	**19 U rack**	01

Parameter	Minimum required specification
19U rack	Should confirm DIN 41494 & IEC 297, standard, Load bearing, capacity of 40 Kgs having following accessories, 19 "AC power distribution channel with 5 & 15 Amp power Universal/Indian standard sockets & spike suppressor, equipment Mounting screws/hardware packets (2 nos.), with two fan, 3 years onsite warranty

Cluster Management Software	Cluster Management (Open source) FORTRAN Compiler for the cluster MPI libraries, OPEN MPI libraries and other parallel Libraries.	01
Installation	Installation & configuration of Hardware, OS, Cluster Management Software & Application Softwares (Gaussian, GAMESS, Quantum Espresso, etc.)	01

Signature: …………………………....................... Date.................................

Name   :……………………………......................

Address :……………………………..................

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Mobile No…………………………….....................