O/o DIRECTOR GENERAL SCHOOL EDUCATION
PUNJAB ICT EDUCATION SOCIETY (PICTES)
5th Floor, Block-E, PSEB Complex, Phase-8, Mohali.
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Pre-RFP Consultation Meeting Notice

PICTES, under the aegis of Department of School Education, Punjab, is in the process of preparation of RFP for selection of service provider to supply, install and maintain the IT hardware items like Computer, Interactive Flat Panel, UPS, Printer & Multifunction Printer in 38 School of Eminence (SoE) across the State of Punjab.

To finalize the RFP, a pre-RFP consultation meeting has been scheduled on **9th August, 2023 (Wed) at 5 PM** in Conference Room, O/o DGSE, 5th Floor, PSEB complex, Phase-8, SAS Nagar.

Prospective Bidders/OEM's (maximum 2 senior officers per organization) are invited to attend the meeting.

In case of any query, Dr. Kanchan Sharma, Dy SPD (PICTES) may be contacted at +91 0172-5212328-311.

DGSE

Enclosed-

1. Proposed Specifications of hardware items.
2. Proposed Delivery and Installation Schedule.

Proposed Specifications of Hardware Items

1. Desktop Computer: -

Specification	Minimum Requirement
Processor Make	Intel/AMD
Processor Description	12th Generation, Intel Core i5 (6 core, 12 MB cache, 1.80 GHz base frequency) or equivalent AMD or higher
Maximum Power Consumption in fully Operating Mode (Watt)	90
Form-Factor	Micro
Operating System (Factory Loaded)	Windows 11 Professional under Microsoft Shape the Future Program/ Windows 11 professional/ Windows 11 Home
Type of RAM	DDR4 Or higher
RAM Size (GB)	16 Or higher
RAM Expandability upto (GB)	32 Or higher
Type of Storage 1	SSD 512 GB or higher
Wi Fi Connectivity	Yes
Availability of Vesa Mount Kit	Yes
Monitor Size (INCHES)	23.8 Or higher ((Same brand as PC)
Monitor technology	IPS/VA Antiglare or better

Specification	Minimum Requirement
If Yes, Monitor Resolution (PIXELS)	1920 x 1080 Or higher
Monitor Stand	Standard, Height Adjustable Or higher
Keyboard & Mouse	USB Standard Keyboard and USB optical mouse (Same brand as PC)
BEE / Energy Star for the given Model	Yes
Other Certifications	RoHS Compliance, BIS
OEM Manufacturing Certification	ISO 9001, ISO 14001/ ISO 20001/ISO 270001
Ports	Minimum 6 USB Ports with at least 2 USB 3.1 Gen 1 or higher • Minimum 1 HDMI/DP or higher • 1 x RJ45 (10/100/1000 Gigabit Ethernet Port) • 1 x Microphone/Headphone Combo Jack, 1- Type C port (optional)
Accessories	All required cables/connectors, Mouse pad,
Pre-loaded Software	Open Office
On Site OEM Warranty (Year)	3 Or higher

The Computers system should be easily maintainable and the main parts like RAM, SSD, Processor, motherboard can be replaceable & repairable individually.

2. Interactive Flat Panel: -

Specification	Minimum Requirement
Display Type	IPS
Display Panel Diagonal size (mm)	1905 or higher
Backlight Technology	LED
Display Resolution (Pixels)	3840X2160 or higher
Display Brightness (Nits)	350 or higher
Display Aspect Ratio	16:9 or better
Touch interface	Touch sensitive as well as pen driven
Touch Technology	Infrared optical/Capacitive
Number of touch points (Number)	10 or higher
Response time (milli seconds)	8 or better
In-built speakers	40 Watt or higher (OEM of Interactive display should provide external speakers, if required, if the wattage of inbuilt speakers is less than the required wattage)
Bluetooth connectivity	Yes
Wi-Fi connectivity	Yes

Specification	Minimum Requirement
On Site OEM Warranty (Year)	3 or more
Other Parameters	**Processor -** Quad core (1.5 Ghz) or higher; **Touch Accuracy** – 2mm or lower, **Viewing angle –** 178 X 178: **Protection Glass** (Min 4 mm)– Tempered / toughened, scratch resistant, anti-glare coating; HDMI cable with
Memory	RAM- 4 GB or higher, Internal Storage - 32 GB or higher
Inbuilt OS	Windows 11 or Android 11 or higher
Ports	HDMI- 2 or higher, USB 3.0 – 2 or higher, USB 2.0 –1 or higher OPS slot- 1, Audio out - 1, USB Type C – 1, RJ 45- 1,
Certification	BIS/BEE, RoHS,
OEM Manufacturing certification	ISO 9001, ISO 14001/ ISO 20001/ISO 270001
DMS	Device Management Software to check the device utilization
Availability of test reports from Central Govt /NABL / ILAC accredited Lab covering all the parameters	Yes
OPS (same brand as Interactive Flat Panel)-	10th Generation Intel Core i3, RAM- 8 GB DDR 4, SSD- 256 GB, HDMI out port- 1, Audio out port-1, Mic-1, USB-3.0- 2, USB 2.0- 1, Ethernet port-1, Built in Wi-Fi- Yes, OS- Window 11 Professional.
Software features	Support multi touch & multi writing Native handwriting recognition of English

Specification	Minimum Requirement
	Support Gesture Recognition like zoom, pan, tilt, flicks (optional) etc.
	Have following interactive tools/features like Pen, Eraser, spotlight, curtain (optional), shape recognition, shape editing, auto grouping infinite color options for annotation, color bucket, back ground pattern, lines & arrows screen capture tools (freehand capture is must), import/export files, recycle bin, unlimited pages, Cut & Paste, page navigation save page(s), Undo/Redo, Geometric Tools like protractor, compass, ruler etc.
	Recognition up to four-sided figures (preferably upto six-sided figures)
	Capable to annotate on any 3rd party applications.
	Recording feature
	Finger touch enabled.
	Capability of taking Snapshot from running video
	Real time interaction and writing speed without any time lag
	Must have inbuilt appropriate software for the following: 1. View pictures [all major formats like jpg, jpeg, png, gif, etc should be supported] 2. View pdf, MS word, MS excel, MS presentation, .odt, .ods, etc files etc. 3. Listen to audio files [all major formats like mp3, m4a, etc should be supported] 4. Play video files [all major formats like mp4, mpeg, avi, etc should be supported]
	No LMS is required but the vendor may provide at no additional cost
	Inbuilt Pen Holder with up to two pens
	Inbuilt whiteboard software for teaching/ training using Interactive display with features like (Pen, thickness of pen, colours of pen, Pixels eraser and Region eraser, Shapes (Circle, Triangle, Rectangle, arrows),Background of White board (multiple colours also use picture, shape), Redo/Undo, Next/Previous, Select & Drag option, Switching between single touch and multiple touch, Clear screen, List of pages with deleting option, Switching tool bar right to left, Many other Tools (Compass, Protector, Insert Table, Calculator, Curtain, Timer, Calendar, Camera, Spotlight, Multiscreen (divide board in 2,3,and 4 parts with background and different pen colour), on screen annotation. Interactive software of the interactive Display should detect the Visual Presenter/ Visualiser and should be able to annotate on the image captured by the Visual Presenter/ Visualiser.
	Interactive display should allow user to share/mirror the

Specification	Minimum Requirement
	content of Laptop/Desktop and mobile device (Android) wirelessly and should have Screen Share software
	Toolbar should be available on all screen for quick access tools and same should be customized as per user requirement.
	Built in Google Play store to download applications direct from Play store OR Similar App store.
	Built in YouTube application
	Interactive display should have inbuild cloud drive acess from Google drive / one drive etc.
	Device should support software-based VC with internal android platform like Google meet, Cisco WebEx, Skype, Microsoft teams & zoom applications.
	Device should have inbuilt virtual keyboard with English language support. However, System should support other language Punjabi, Hindi from inbuilt software or through any other 3rd party software or through OPS.
	Provision to lock all the USB port (optional), Screen Lock, application lock to restrict unwanted access.
	In-built Volume equalizer with optional surround sound support to enhance the sound quality.
	Built in screen shot option using single click
	After opening of bids, bidders may be required to provide demonstration of the features requested in the bid.
	Above all features may be inbuilt OR through 3rd party application OR through OPS.

3.   1 KVA and 2 KVA Line-Interactive UPS

Parameter	Minimum Bid Requirement (Allowed Values)
Rating in KVA/ min VAH capacity of battery (KVA/VAH)	1.0/800 and 2.0/1600
Technology	MOSFET-PWM OR IGBT-PWM
Type of battery	SMF-VRLA: leak proof confirming to JISC-8702 Pt 1,2 &3
Battery Backup Time	30 mins with full load

Rated Output (Volt)	Single phase sinewave 230v AC , 50Hz, OR Single Phase Quasi-Sin-wave 230 V AC, 50 Hz
Degree of protection	IP-20/IP-21
Inverter Efficiency (%)	>/= 70% at full load on mains mode
Warranty for the battery from the date of delivery	5 years or more onsite warranty
Warranty for Line Interactive UPS	5 years or more onsite warranty
Overload Time (Minutes)	> / = 10 minutes (optional)
Overload (%)	>=10% (optional)
Load power factor	> / = 0.6
Variation in AVR output in AC mode (%) AVR (Voltage regulation) output voltage in AC Mode	230 Volts +/-9%, 50 +/-3 Hz
Variation in output voltage in battery mode (%) (UPS output voltage in battery mode)	230V +/- 10% with AVR (Automatic Voltage Regulation) 50Hz +/- 1%
Type of enclosure	Mild steel, ABS
Protection against (over discharge) discharge per 12v battery (Volt)	10.5
Protection for outside input voltage range: If Input voltage goes outside the range 160 to 280 Volts, the system shall switch over to battery mode	Yes
Protection against short circuit of UPS	Yes
Protection for over voltage and over load	Yes
Damp heat Test at 45 degree , RH -95% for 2-cycle as per IS:9000 pt-5/sec-1	Yes (optional)
Dry heat Test at 45 degree for 16 Hrs as per IS:9000 pt-3/sec-5	Yes (optional)
Cold Test as per IS:9000 pt-2/sec-4	Yes (optional)
Damp heat Test at 45 degree , RH-95% for 2-cycle as per IS:9000 pt-5/sec-1	Yes (optional)
Availability of the type test report from central Govt./NABL/ILAC Accredited Lab	Yes

RoHS compliance	Yes
As per Meity (Government of India) guidelines UPS shall havevalid BIS CRS certifications as Applicable	Yes
OEM Manufacturing Certifications	ISO 9001, ISO 45001, ISO 14001
Battery Enclosure	Powder Coated racks matching with color of UPS.

4. Printer

Specification(s)	Minimum Bid Requirement (Allowed Values)
Printing Technology	Inktank/Laser
Type of Printing	Color
Paper Size	A4, Legal
Print Speed per minute as per ISO/IEC 24734 in (A4) Size - Mono	18 Or higher
Print Speed per minute as per ISO/IEC 24734 in (A4) - Color	10 Or higher
Wireless Connectivity	Yes
USB Port	Yes
Number of Main Paper Trays	1 Or higher
Yield of the cartridge/Ink Tank/Ink Pack supplied with Machine as per ISO/IEC: 19798/2007(E) for Cyan colour (Number of prints)	690 Or higher
Yield of the cartridge/Ink Tank/Ink Pack supplied with Machine as per ISO/IEC: 19798/2007(E) for Yellow colour	690 Or higher

Specification(s)	Minimum Bid Requirement (Allowed Values)
(Number of prints)	
Yield of the cartridge/Ink Tank/Ink Pack supplied with Machine as per ISO/IEC: 19752/2004(E) for Black (Number of prints)	1500 Or higher
Duty Cycle (No of Prints/month)	1500 Or higher
On site OEM warranty (Years)	3 Or higher
Certification	BIS, RoHS compliance

5. Multifunction Printer

Specification(s)	Minimum Bid Requirement (Allowed Values)
Print Technology	Laser
Type of Machine	Multifunction Machine
Type of Printing	Mono
Cartridge Technology	Composite Cartridge, Separate Drum and Toner (Mono Component), Separate Drum and Toner (Dual Component), Ink Or higher
Resolution	Upto 600 X 600 dpi
Platen/Flatbed Size	A4 Or higher

Specification(s)	Minimum Bid Requirement (Allowed Values)
Paper Size (Original/Image)	A4, Legal
RAM size (MB)	2 Or higher
Minimum Speed per Minute as per ISO/IEC 24734 in A4 Size-Mono	30 Or higher
Scanning Feature Availability	Yes Or higher
Duplexing Feature Availability	Yes (automatic) Or higher
Networking Feature Availability	Yes (Ethernet 10/100/1000, Ethernet 10/100 Or higher Or higher)
Wi-Fi Availability	Yes (Wi fi 802.11 b/g/n, Wi Fi Direct, Wi fi 802.11 b/g/n & Wi Fi Direct, Wi Fi Dual Band Or higher Or higher)
Original Document Feeder Type	ADF, DADF/RADF, SPDF Or higher
Number of Main Paper Tray	1 Or higher
Yield of the cartridge/Ink Tank/Ink Pack supplied with Machine as per ISO/IEC: 19752/2004(E) for Black (Number of prints)	1500 Or higher
Duty Cycle (No of Prints/month)	5000 Or higher
On Site OEM Warranty (Year)	3 Or higher
Certifications	BIS, RoHS Compliance

Proposed Delivery and Installation Schedule

All items shall be delivered, installed & commissioned successfully at nominated locations within the number of days given below from the date of signing of contract agreement or from the date the site is ready, whichever is later.

Phase	Number of Schools	Number of days
Phase-1	15	30 days
Phase-2	23	45 days

Number of items for School are as below-

Sr. No.	Item Description	Qty per School
1.	Desktop Computers	41
2.	Interactive Flat Panel	2
3.	2 KVA Line-Interactive UPS	4
4.	1 KVA Line-Interactive UPS	2
5.	Printer	1
6.	Multifunction Printer	1