

Regd.
From

The Director General, Supplies & Disposals, Haryana,
S.C.O. No. 09 (1st & 2nd Floors), Sector-16, Panchkula.
Tel. Nos. 0172-2570121-124.
Fax No. 0172-2570121, E-mail: supplies@hry.nic.in

To

M/s. Universal Enterprises,
Mangal Parao haldwani,
Uttrakhand.

Email:- universalenterprises111@gmail.com

Memo No. 41/HR/RC/E-4/2018-19/6539
Dated Pacnhkula the:- 27.06.2019

Subject:- Two Years rate contract No. 41/HR/RC/E-4/2018-19/6539 dated 27.06.2019 for the purchase of information Technology/ Computer Group items required by the Skill Development & Industrial Training Department, Haryana (Sr. No. 07)

Dear Sir,

With reference to your Tender No. & dated and this office acceptance letter No. & Dated and your letter No. and Dated given in Schedule "A", on the subject noted above, I have to inform you that your offer has been accepted for the supply of stores to the terms & conditions given in the Schedule "A" and "B".

2. I enclose herewith an agreement form in duplicate and request that the agreement may be executed on a non-judicial stamp paper of Rs.15/- signed and returned to this office within 10 days from the date of issue of this letter. One copy of the agreement will be sent to you duly executed on behalf of Governor of Haryana for your record. You may kindly send power of attorney in favour of the person/persons who is/ are authorized to signed the agreement together with/their specimen signature duly attested by a Magistrate or Oath Commissioner or Resolution of the firm authorizing the persons to sign the documents on behalf of the firm.

3. The Contract shall come into force from the date of its issue and shall remain operative upto ONE YEAR i.e 26.06.2021. Government reserves the right to bring any other party on the rate contract at any subsequent stage during the pendency of this rate contract.

4. The store must confirms to the approved specification/samples as given in Schedule "A" attached, failing which the same shall be rejected at your risk and cost.

5. The inspection of the material will be carried out by the Indenting Officers or their authorized representatives at your premises before dispatch.

6. The supply must be completed within the stipulated delivery period failing which the risk purchase will be affected against you and the excess cost thus incurred will be recovered from you. Delayed supplies shall be accepted under penalty clause of the Schedule "B" unless the delivery period is extended by the competent authority.

7. The Director, Supplies & Disposals, Haryana reserves to himself the right to obtain contracted items of stores when available from any Govt. Deptt./ approved source without prejudice to this contract.

8. Failure to execute agreement/effect supplies within the stipulated period, repeatedly offering supplies liable to rejection or without prior inspection may render your earnest money/security liable to forfeiture, debarring your firm in addition to other remedies as available under the terms of the contracts.

9. All cases, where payments are not made within time, should be referred to this office for taking necessary action against the defaulters.

10. Your attention is particularly invited to the provision of Schedule "B" regarding the compliance with requisitions, preparation and submission of bills and quarterly submission of statement of supplies.

11. **PRICE FALL CLAUSE:-** The price charged for the stores shall not exceed in any way the lowest price at which you quote/supply the stores of identical description of stores to DGS&D, New Delhi/State Govt./Central Govt./Institutions/ undertaking/any other person during the delivery period/currency period of the rate contracts. If at any time during the delivery/currency period, you reduce the rate, sale price of quoted stores to any person at the price lower than the price chargeable under this supply order/contract, you are required to inform this office and price payable under the supply order/contract for the stores supplied after the date of coming into force of such reduction of rates shall stand correspondingly reduced to that level. You shall promptly notify the reduction of rates to this office as well as to concerned Indenting Officers/ Consignees. You shall also give a certificate on your bills that the rates charged by you are not in any way higher to these quoted to the DGS&D, New Delhi and other State Govt. Central Govt. Institutions etc. during the corresponding period. The Indenting Officer shall be required to ensure that requisite certificate is given by the concerned firm on the bills before releasing their payments.

12. All disputes will be settled only within the jurisdiction of Head Quarters of the Directorate of Supplies & Disposals, Haryana, Panchkula.

Please acknowledge the receipt of this letter.

Yours faithfully,

Sd/-

Assistant Director, Supplies & Disposals,
For & On behalf of Governor of Haryana

Endst. No-41/HR/RC/E-4/2018-19/ 6540

Dated 27.06.2019

A copy (i) copy of Schedule 'A' showing the prices accepted along with conditions of supply (ii) Schedule "B" i.e. conditions of contract applications are forwarded to the Director Skill Development & Industrial Training Department Haryana for information and necessary action.

1. He may indent for the requirement of the goods included in the Schedule "A" attached direct on the approved contractors under intimation to this office.

2. The security deposited by the firms would be released after two months of the termination of the contract and he is therefore, requested to send the complaints, if any, against the contractors to this office within this limit for settlement, failing which no complaint or claim will be entertained.

3. The Inspection shall be arranged by the Indenting Officer/Consignees or their authorized representatives at destination before releasing the payment of the supplies. The

stores should be accepted only after satisfactory inspection and issue of proper inspection note showing the acceptance of the material as per approved specifications.

4. Please report all cases in which contractor fails to effect supply within the delivery period stipulated in the Schedule "A" after the expiry of stipulated delivery period to this office for effecting purchase at the risk and cost of the contractors failing which all responsibility will rest with Indenting Officers/Consignees for not effecting risk purchase within prescribed period.

Sd/-

Assistant Director, Supplies & Disposals,
For Director General, Supplies & Disposals, Haryana

Endst. No-41/HR/RC/E-4/2018-19/ 6541

Dated 27.06.2019

A copy is forwarded to the following for information & necessary action:-
The Excise & Taxation Commissioner, Uttrakhand.

He is requested to ensure that the GST is paid by the firm to government against this rate contract.

Sd/-

Assistant Director, Supplies & Disposals,
For Director General, Supplies & Disposals, Haryana

Endst. No-41/HR/RC/E-4/2018-19/ 6542-48

Dated 27.06.2019

A copy is forwarded to the following for information and action:-

1. The Accountant General (Audit), Haryana, Sector-33, Chandigarh.
2. The Controller of Stores, Punjab, Chandigarh.
3. The Controller of Stores, Himachal Pradesh Nigam Vihar, Shimla.
4. The Controller of Stores/Director of Industries and Commerce, J&K, Shrinagar.
5. St. Section O/o DGS&D, Haryana.
6. Programmer O/o DGS&D, Haryana.
7. Departmental Processing Charges branch DGS&D, Haryana

Sd/-

Assistant Director, Supplies & Disposals,
For Director General , Supplies & Disposals, Haryana

SCHEDULE - "A"

Accepted rates of M/s. Universal Enterprises, Mangal Parao haldwani, Uttrakhand. Email:- universalenterprises111@gmail.com Offer No. offer No. UE/DSD/2018-19/75 Dated 21.03.2019 and your letter No. nil dated 07.06.2019, this office acceptance letter No.5898 dated 18.06.2019 & your letter dated 27.06.2019.

1. Digital Board/Digital Teaching System:-

Sr. No. of DNIT	Description of Stores	Qty.	Rates in Rs. per piece, inclusive of GST, Freight & FOR Destination
1.	Digital Board/Digital Teaching System Model- VDU 65HTH-B	191 Nos.	3,15,000.00

SPECIFICATIONS:-

S.No.	Digital Board	
1	Technical Specifications of Digital Board	
	Digital Board is a integrated solution including Frame, Cabinet with Computer, Multimedia Controller, Visualizer & Biometric attendance device, Interactive Display & System Audio	
A	Frame/Housing	
	Frame	Wall mounted structure with locking facility and sliding arrangement with Writing board (Minimum 60 Inches diagonal) in front.
B	Cabinet for Computer, Multimedia Controller & Visualizer	
	Cabinet	Wall Mounted Lockable Enclosure to house Computer, Controller, Visualizer & Biometric attendance device
	Material of Cabinet	Powder coated CRCA Steel Sheet of minimum 1.2mm thickness
C	Computer	
	Form Factor	Computer should be of 2 litres Volume or less
	CPU	Intel Core i3 (8th Gen processor) with minimum 3.0Ghz Base frequency
	RAM	4 GB RAM
	Hard Disk	1 TB or better
	In-Built Wi-Fi / Wireless LAN Card	Should have a inbuilt Wi-Fi / Wireless LAN Card
	Ports (Min.)	HDMI x 1, DP(Display Port) x 2, USB ports x 6, LAN Port x 1
	Standard Keyboard	Wireless Keyboard
	Optical Mouse	Wireless Mouse
	Operating System	Windows 10 Pro Academic
D	Multimedia Controller	
	Controller	Should have Power On/Off, , Volume Control, Mute, External PC input, VGA, Touch pad keys.
	Input / Output Port on Front Panel of the Cabinet	Computer Audio IN, VGA IN, USB 3.0 x 2, HDMI IN, LAN Port, Power socket to give power to any external device being

		connected.
E	In -Built Visual Presenter	
	Type	Portable
	Technology	CMOS
	Image Capture Size	Minimum A4 Size (210x297 mm)
	Native Resolution	Full HD 1920 x 1080 or better
	Optical Zoom	12x or better
	Digital Zoom	8x or better
	Video Frame Rates	30 FPS or better
	Focus Arrangement	Auto Focus
	Camera Head Rotation Angle	Camera head rotation angle-180 degree in horizontal and 180 degree in vertical or better
	Light Source	White LED
F	Technical Specifications for Display	
	Technology	LED (Light Emitting Diode) Backlit Display
	Display size (Diagonal)	Diagonal 65 inch or Higher
	Aspect Ratio	16:9/16:10
	Resolution	1920 X 1080 or higher
	Contrast Ratio	15000:1 or higher
	Brightness	500 cd/m ² or higher
	Display colour	8 bit-16 million colours or better
	Input Ports	USB port for Android x 2, VGA IN x 1, VGA Out x 1, HDMI x 3, USB B Type for Touch x 1, LAN Port for Android x 1, SDIF, RS-232, Video IN, Video Out
	Audio	Inbuilt two front throw speakers of 20 Watts each
	Communication port	RS 232C & LAN
	Multi Touch	IR Sensor based Touch technology with minimum 6 touch capability.
	Power supply requirement	230V AC +/- 10%, 50 Hz
	Max Power consumption	Maximum 400 Watts
	Accessories to be supplied	AC Power cord, User Manual, Remote control, Wall mount bracket necessary cables and connectors shall be provided to make it a complete operable unit.

	Special Features	<p>Features:-</p> <ol style="list-style-type: none"> 1. Energy Saving – Ideal to Standby Time 2. Scheduled Power On / Off 3. Screen Shot in Single Click 4. Wireless / Wired Printer Support 5. Child Lock Setup to avoid misuse 6. USB port Lock for Android 7. USB Plug & Play in Android – Document, PDF, PPT, Video, Audio 8. Smart Eye Protection – Eye Protection Writing Mode, Eye protection Brightness control mode as per light ambient 9. Background Change for Android
	Classroom Interactive Features	<p>Interactive software should have features like choose, pens, annotate, erase, colour, shapes, sizes, text, Edit, fonts, stamp, move, capture, picture, video, save, Rotate, undo, image gallery, print, floating keyboard and Background etc..</p> <p>The software should have network classroom feature to conduct remote teaching by having interaction through all the three types of media Audio, Video and Text.</p>
	Ports Accessibility	Easily accessible ports in front panel.
G	System Audio	
	System Audio	Solution should be supplied with minimum 100 watts RMS amplifier and two speakers housed in array of minimum 50 W RMS each
H	Power Backup	
	Power Backup	Solution should be supplied with minimum 1 KVA UPS with inbuilt batteries with minimum 15-20 Minutes backup time with casing

2. Digital Podium/ Smart Resotrum:-

Sr. No. of DNIT	Description of Stores	Qty.	Rates in Rs. per piece, inclusive of GST, Freight & FOR Destination
2.	Digital Podium/ Smart Resotrum MODEL- HT DP 23	80 Nos.	Rs. 3,20,000.00

SPECIFICATION:-

Smart Rostrum		
1	Type/Mounting	Free Standing
2	Construction	The rostrum shall be wheel mounted capable of moving in all directions with a facility of lock them while the Electronic podium is in use. The enclosure shall be made of Polymer Powder Coated Steel Body with wooden top panels, designed to work in suitable environmental conditions. The wooden top shall have lock and key and should have a sliding cover for opening/closing easily. The Podium should have housing and connectivity for Visual Presenter while the visualiser is in use and not in use. At the time of using the Visualiser ,drawer can be opened and Visualiser can be used. The construction of the podium should be such that,while the podium is locked and not is use, there should not be any port exposed/ visible on the outer body for breakage/mishandling.
3	Display	Built-in highly sensitive Interactive Panel with adjustable tilt & a mechanism to make the Panel stable so that it does not shake while writing with following minimum features -
(a)	Screen Type	LED
(b)	Size	53.0 cm (21 inches) or higher
(c)	Resolution	1920 x 1080 or higher
(d)	Aspect ratio	16:9/16:10
(e)	Computer interface	One USB, One VGA/DVI/HDMI Port
(f)	Interactive Resolution	4000 Lpi (lines per inch)
(g)	Response Time	5ms
(h)	Viewing Angles	170(H) ; 160(V)
(i)	Touch	Finger and Stylus
(j)	Reading accuracy	±0.5 mm (center)
(k)	Tracking speed	Approximately 200 points per second
(l)	Pen Pressure sensitivity	2048 Levels
(m)	Speakers	Display panel should have Inbuilt Speaker

(n)	Annotation software	Annotation software shall include minimum features like choose, pens, annotate, erase, color, shapes, sizes, text, Edit, fonts, stamp, move, capture, picture, video, save, Rotate, undo, image gallery, print, floating keyboard and Background etc.. The software should have network classroom feature to conduct remote teaching by having interaction through all the three types of media Audio, Video and Text.
4	System Details	
(a)	Processor	Intel Core i3 (8th Gen with minimum 3 GHz Processing Speed)with minimum 6MB Cache Memory
(b)	Small Form Factor	Computer should be of 2 liters Volume or less
(c)	In-Built Wi-Fi / Wireless LAN Card	Should have a inbuilt Wi-Fi / Wireless LAN Card
(d)	RAM	4 GB (Upgradable upto 32 GB)
(e)	Hard Disk	1 TB or better
(f)	Ports (Min.)	HDMI x 1,DP(Display Port) x 2,USB 3.0/3.1 ports x 6, LAN Port x 1
(g)	Keyboard & Mouse	Wireless
(h)	Operating System	Windows 10 Professional Preloaded
(i)	Antivirus	Norton Anti Virus/Mcafee or equivalent with 1 year license
5	Controller	
(a)	Features	Should have Power On/Off, Projector/Display On/Off, Volume Control, Mute, External PC input, VGA ,Touch pad keys.
(b)	Input / Output Port on Front Panel of the Cabinet	Computer Audio IN, VGA IN, USB 3.0 x 2, HDMI IN,Power socket to give power to any external device being connected.
(c)	LAN Connection	RJ 45 LAN Port at the panel to connect network
(d)	Display	Selection switch to toggle between various sources for the output on the projection screen through a touch panel.
6	Built in devices	
(a)	Gooseneck Microphone	Gooseneck Microphone with XLR output.It should be Phantom powered so that there is no requirement of batteries thereby eliminating consumable cost.The gooseneck length should be atleast 21.5cm with ON/OFF switch and with LED light indicating ON/OFF status.The gooseneck microphone shall be permanently polarised condensor,highly directional featuring hypercardioid /lobar directivity.
(b)	Built in Amplifier Power	100 Watts minimum
(c)	Speakers	Two speakers of Minimum 50 W each shall be a part of standard supply.
(d)	Wireless Microphone Units	Wireless microphone receiver should be inbuilt in the Amplifier.One handheld Microphone and One Lapel Microphone transmitters should be supplied with a range of 10 meters.
7	Sliding Trays	Provision for keeping laptop and Keyboard & Mouse
8	Power Supply	180 -240V, 50Hz, AC Supply
9	Security	Integrated authentication System having RFID, Password protection & Physical Key for secure access to system.
10	Fans	Suitable cooling fans to be provided in the lower body.

11	Visualiser	
	Total Pixels	Min. 5 Mega Pixel
	Zoom	Minimum 12x Optical Zoom, 15x Digital Zoom
	Frame Rate	Min. 30 FPS
	Shooting Area	Minimum A4 Size
	Focus	Auto/Manual
	Resolution	It should have 950 TV Lines or more. It should have native resolution of 1920 x 1080 Full HD
	Signal Support	It should support the following resolutions 1024×768; 1280×1024;upto 1920x1080
	White Balance	It should have option of Auto/ Manual White Balance.
	Multimedia Function	It should have the following Functions: Color/Black-White, Mirror, Rotate, Brightness Control, Freeze, PIP, PBP, Preview.
	Input ports	It should have Atleast 1VGA-IN, 1 HDMI-IN, Audio-IN
	RS-232 Input	It should have RS-232 Port for Control.
	Output ports	It should have 1VGA-OUT, 1 HDMI-OUT, Audio-OUT
	Other Ports/Connectivity	It should have USB Port ×1, Direct Mouse Connectivity Port, SD Card Slot, Direct Microphone Input.
	Remote Control	Required
	Cabinet	Wall Mounted Lockable Enclosure
	Material of Cabinet	CRCA Steel Sheet

3. Student Response System:-

Sr. No. of DNIT	Description of Stores	Qty.	Rates in Rs. per piece, inclusive of GST, Freight & FOR Destination
3.	Student Response System MODEL- HT 2WAY SRS	48 Nos.	Rs. 3,00,000.00

SPECIFICATION:-

Student Response System

Si. No.	Particulars	Features
Student Clickers		
1	Buttons	0~9 & A~Z so on Min. 20 buttons,
2	Design	Mobile phone design, support full text input
3		Must support single and multiple correct option questions, fill in blank, sort in order
4	Numeric Input Support	Must support number input, 15 digital at most
5	Messaging	Should support sending message
6	Battery Life	two AAA batteries, two years normal use
7	Response Time	Fast speed: 1 second for 100 keypads, 4.5 second for 400 keypads
8	Keypad Support	Support 3000 keypads: one receiver for 400 keypads, 7 receivers work at the same time
9	Display Size	LCD display
10	Dimension	To be notified
11	OSD	LCD screen show battery status, ID number, answer content, signal sent and received, Built-in battery status check to electrical quantity check and display
12	Weight	To be notified
13	ID	ID Address Programmable, Support fast-ID setup function
14	Active Distance	Transmission distance: > 100 meters
15	Active Angel	Transmission angle: 360 degree
16	Rugged	Durable and not easily breakable, will not break or damage even drop to the cement ground from 5 meters high
Teacher Clickers		
1	LED	LED status

2	Transmission distance	100 meters
3	Transmission angle	360 degree
4	Laser Pointer	Laser indicator build-in
5	Control	Maintain full control over every presentation, Control games procession, Present slides, going backwards, forwards, showing charts etc.
6	Battery Life	Over 1 year battery life for normal use
Software Features		
1	Integration	Integrated with Microsoft powerpoint
2	Modes	Should have Min. ten activity modes, like normal quiz, rush quiz, elimination and so on, should provides 10 kinds of activity-models for interactive teaching and meeting
3	Supporting Applications	Support Powerpoint quiz, also support quiz on paper, blackboard, PDF and so on
4	Suuporting OS	Should support Win XP, Vista, Windows 7, Win 8 Win 10 and Linux. Compatible with Office 2003, 2007, 2010, 2013
5	Transmission distance from handset to receiver	100 meters radius (328 feet)
6	Reports	Analysis results should be saved in html , txt, excel formats
7	Question Support	Supports oral, blackboard or paper-based questions
Receiver Hardware		
1	Technology	2.4GHz digital RF technology, 4 radios channels
2	Port	USB port or 232 port
3	Weight	Less then 0.5 Kg
4	Operating Temperature	Operating Temperature: 0-40 degree
5	Power	DC12V, 800MA adapter or no extra power required
6	Receiving angle	360 degree Receiving distance: 100 meters
7	Keypad Support	Support up to 2000 student keypads

4. Vertical Signage:-

The rates are in Rs. per piece, inclusive of GST @ 18%, Freight & FOR Destination			
Sr. No. of DNIT	Description of Stores	Qty.	Rates are in Rs. per piece, inclusive of GST, Freight & FOR Destination
4.	Vertical Signage MODEL- HT CLASSIC DISPLAY-55	34 Nos.	Rs 2,60,000.00

SPECIFICATION:-

Features	
Type/Mounting	Floor standing
Construction	Galvanized steel, air cooled, long lasting anti corrosive protection layer
Display Panel	
Type	55" Color, direct LED backlight source, laminated tempered glass
Resolution	Full HD (1920 x 1080)
Screen Orientation	Vertical
Active Area	1210 x 680
Brightness	500 nits
Refresh Rate	6.5 ms
Contrast Ratio	4000:1
Viewing Angle	1780/1780 (H/ V)
Function	
Video Input	USB x 1, SD x 1, HDMI x 1
Video Format Support	avi, mpg, dat, rm / rmbv, wmv
Audio Format Support	mp3, wma, m4a /aac

Image Format	.jpg / jpeg, bmp, png
Audio Output	10 W x 2
System Details	
Processor	Intel Core i3, 3.0 Ghz
Memory	4 GB
HDD / Storage	1 TB
Operating System	Windows 10 SL
Environment	
Power Supply	AC 100-240
Power Consumption	Maximum 380V
Standby Power	2W
Shut Off Power	0.5W
Features	Should be Ultra thin, clean cut, durable and air cooled design
	Should have fetures of Automated on/off timing by day, week and hour
	Should have automatic brightness adjustment according to surrounding
	Should have Built-In voltage protection circuit

5. Digital Technology Lab :-

Sr. No. of DNIT	Description of Stores	Qty.	Rates are in Rs. per Lab, inclusive of GST, Freight & FOR Destination
5.	Digital Technology Lab MODEL- HT LAB 20	37 Nos.	Rs 24,00,000.00

SPECIFICATION:-

Digital Technology Lab

1	Student Computer	Twenty
	Form Factor	PC integrated on Monitor
	Display	21.5" diagonal FHD anti-glare IPS LED Backlit LCD Display
	Native Resolution	Full HD 1920 x 1080
	Contrast ratio	1000:1
	Aspect Ratio	16:09
	Brightness	250 nits (cd/m2)
	Viewing Angle	178 ° x 178 °
	Backlight lamp life	30,000 Hours or more
	Audio I/O	Integrated HD audio card and stereo speakers, microphone / headphone combo jack.
	Webcam	Integrated HD camera (1280 x 720), 30 FPS, with Mic & having privacy shutter.
	CPU	Intel Core i3 (8th Gen processor) with minimum 2.0Ghz base frequency
	RAM	4 GB RAM or better
	Hard Disk	Minimum 1 TB HDD with 256 GB SSD
	In-Built Wi-Fi / Wireless LAN Card	Should have a inbuilt Wi-Fi / Wireless LAN Card
	Ports (Minimum)	HDMI x 1, USB 2.0 ports x 2, USB 3.1 ports x 2, LAN Port x 1,3

		in 1 Card Reader (SD,SDHC,SDXC)	
	Optical Drive	In built Slim Tray DVD Writer 8X Optical Drive	
	Standard Keyboard	Wired Keyboard	
	Optical Mouse	Wired Mouse	
	Headphone with Microphone	Should work with common calling applications, Wired headphone with single 3.5 mm jack, Input Impedance: 32 Ohms, Frequency response (Headset): 20Hz to 20kHz, Frequency response (Microphone): 100 Hz –16kHz, Cable length: 1.8m	
	Operating System	Windows 10	
	Power Adaptor	65 W or lesser external power adapter with minimum 89% efficiency	
2	Furniture		
	Desk/Tables - Students	Linear Type Sharing Student Desk / Tables SIZE : 750 x 600 x 750HT Table top - 25mm thick pre-laminated particle board finished with 2mm PVC edge banding. Partition - 18mm thick pre-laminated particle board. Under-structure - 18mm thick pre-laminated particle board. Wire Management - Wire manager hole per workstation. The Booths could be in configuration of 1 or 2 Student Desk / Tables.	Twenty
	Chairs - Students	Medium Back Chair with spring back, Nylon Base, Gas Lift, PU Moulded Seat & Back Cushion, PP Back Cover, Fabric Tapestry in blue/ black colour.	Twenty
3	Online UPS	Minimum 5.5 KVA / 4.4 KW	One
	Display & Alarms	LCD display showing Charging current, Charging voltage, Output Voltage, Bypass mode, Load level, AC / Battery Mode, Fault indicator, etc. Various beeping frequencies for indicating different modes / faults.	
	Power factor	Minimum 0.8	
	Generator Compatible	UPS should be Generator compatible	

	Ventilation	Proper ventilation for effective heat dissipation	
	Bypass	In built bypass switch	
	Hot Standby	connection facility for hot standby	
	Input Sources	Provision for dual source input	
	Transformer	Built in Step up & Isolation transformer on output.	
	Monitoring & Scheduled shutdown	Local monitoring & scheduled shutdown of system through RS-232 & USB	
	Input	Single Phase, 170V AC ~ 280V AC, 40Hz ~ 55 Hz @ 50 Hz System	
	Output	208V AC ~ 230V AC, Frequency 50Hz ± 0.1Hz, Voltage regulation maximum 1% in battery mode.	
	Compatible Battery	VRLA / SMF / Tubular Battery, Charging at 2/4/8 Amp, 16 nos. batteries.	
4	Networking		
A	Network Switch	24-Port Gigabit Smart Switch, Gigabit Ethernet connections on all ports provide full speed of data transferring, L2+ Feature, Static Routing, helps route internal traffic for more efficient use of network resources, Integrated security strategy including 802.1Q VLAN, Port Security and Storm control help protect LAN area investment, L2/L3/L4 QoS and IGMP snooping optimize voice and video applications, IPv6 support, MLD snooping, IPv6 neighbour discovery, WEB/CLI managed modes, SNMP, RMON and Dual Image bring abundant management features.	One
B	Network Rack with electrical connectivity	19" Wall mount 4u rack, 400mm depth, single section with front toughened glass door, strong steel end, frame embedded at top and bottom with cable entry provisions, with lock & key, PDU 19" horizontal 6 way, universal socket 5 amp with on/off switch and indicator and 2.5 mtr cable and 3 pin plug.	One
C	Cat6 23AWG UTP Cable	4 Pairs Unshielded Twisted Pair (UTP) Cable Solid Bare Copper Conductor Metal, Conductor Diameter: 0.560mm (23 AWG), Insulation: 0.970mm Diameter in HDPE, Cable Diameter: 6mm, with PE Central Cross separator.	One Set

D	Accessories for installation	Solution shall be provided with all cables, screws, fasteners, switch board, sockets, I/O face plates, connectors, electrical accessories, conduit, baton, flexible pipes, etc. as required for installation & optimum functioning of the Digital Lab.	One Set
5	Technical Specifications of Digital Board		One
	Digital Board is a integrated solution including Frame, Cabinet with Computer, Multimedia Controller, Visualizer& Biometric attendance device, Interactive Display & System Audio		
A	Frame/Housing		
	Frame	Wall mounted structure with locking facility and sliding arrangement with Writing board (Minimum 60 Inches diagonal) in front.	
B	Cabinet for Computer, Multimedia Controller & Visualizer		
	Cabinet	Wall Mounted Lockable Enclosure to house Computer, Controller, Visualiser & Biometric attendance device	
	Material of Cabinet	Powder coated CRCA Steel Sheet of minimum 1.2mm thickness	
C	Computer		
	Form Factor	Computer should be of 2 litres Volume or less	
	CPU	Intel Core i3 (8th Gen processor) with minimum 3.0Ghz Base frequency	
	RAM	4 GB RAM	
	Hard Disk	1 TB or better	
	In-Built Wi-Fi / Wireless LAN Card	Should have a inbuilt Wi-Fi / Wireless LAN Card	
	Ports (Minimum)	HDMI x 1, DP(Display Port) x 2, USB ports x 6, LAN Port x 1	
	Standard Keyboard	Wireless Keyboard	
	Optical Mouse	Wireless Mouse	
	Operating System	Windows 10	
D	Multimedia Controller		
	Controller	Should have Power On/Off, , Volume Control, Mute, External	

		PC input, VGA, Touch pad keys.
	Input / Output Port on Front Panel of the Cabinet	Computer Audio IN, VGA IN, USB 3.0 x 2, HDMI IN, LAN Port, Power socket to give power to any external device being connected.
E	In -Built Visual Presenter	
	Type	Portable
	Technology	CMOS
	Image Capture Size	Minimum A4 Size (210x297 mm)
	Native Resolution	Full HD 1920 x 1080 or better
	Optical Zoom	12x or better
	Digital Zoom	8x or better
	Video Frame Rates	30 FPS or better
	Focus Arrangement	Auto Focus
	Camera Head Rotation Angle	Camera head rotation angle-180 degree in horizontal and 180 degree in vertical or better
	Light Source	White LED
F	Technical Specifications for Display	
	Technology	LED (Light Emitting Diode) Backlit Display
	Display size (Diagonal)	Diagonal 65 inch or Higher
	Aspect Ratio	16:9/16:10
	Resolution	1920 X 1080 or higher
	Contrast Ratio	15000:1 or higher
	Brightness	500 cd/m ² or higher
	Display colour	8 bit-16 million colours or better
	Input Ports	USB port for Android x 2, VGA IN x 1, VGA Out x 1, HDMI x 3, USB B Type for Touch x 1, LAN Port for Android x 1, SDIF, RS-

	232, YPbPr, Video IN, Video Out
Audio	Inbuilt front throw speakers
Communication port	RS 232C & LAN
Multi Touch	IR Sensor based Touch technology with minimum 6 touch capability.
Power supply requirement	230V AC +/- 10%, 50 Hz
Max Power consumption	Maximum 400 Watts
Accessories to be supplied	AC Power cord, User Manual, Remote control, Wall mount bracket necessary cables and connectors shall be provided to make it a complete operable unit.
Special Features	<p>Features:-</p> <ol style="list-style-type: none"> 1. Energy Saving – Ideal to Standby Time 2. Scheduled Power On / Off 3. Screen Shot in Single Click 4. Wireless / Wired Printer Support 5. Child Lock Setup to avoid misuse 6. USB port Lock for Android 7. USB Plug & Play in Android – Document, PDF, PPT, Video, Audio 8. Smart Eye Protection – Eye Protection Writing Mode, Eye protection Brightness control mode as per light ambient 9. Background Change for Android
Classroom Interactive Features	Interactive software should have features like choose, pens, annotate, erase, colour, shapes, sizes, text, Edit, fonts, stamp, move, capture, picture, video, save, Rotate, undo, image gallery, print, floating keyboard and Background etc.. The software should have network classroom feature to conduct remote teaching by having interaction through all the three types of media Audio, Video and Text.
Ports Accessibility	Easily accessible ports in front panel.
G	System Audio
	System Audio

6. Surveillance Solution:-

Sr. No. of DNIT	Description of Stores	Qty.	Rates are in Rs. per piece, inclusive of GST, Freight & FOR Destination
6.	Surveillance Solution	26 Nos.	Rs 10,50,000.00

SPECIFICATION:-

Surveillance Solution-Each Set should comprise of the following:

HD IP Bullet Indoor Camera	25
HD IP Indoor Dome Camera	4
HD IP PTZ Camera	2
Joystick Controller for controlling PTZ Camera from Control room	1
32 channels Network Video Recorder	1
Full HDLED Display	2
Cat-6 cable UTP with fixing and installation	2500 meters
PVC conduit, fitting & installation charges	2000 meters
Fibre Optic Armoured Cable	800 meters
HDPE Pipe for CCTV with digging and installation	800 meters
16 Port POE Switch	4
24-Port gigabit I2 Managed POE Plus Switch	2
SFP Module for connecting fibre to switch from LAN Port	16

Specifications are as below:-

HD Bullet Camera Outdoor MODEL- HT-NB-HD2		
Sr.	Parameters	Specification
	HARDWARE FEATURES	
1	Image device	1/3" 1.3MP CMOS Sensor
2	Resolution	1280x960 HD
3	Angle of View	78°
4	Frame Rate	30 FPS in all resolutions on PAL Mode at 50Hz.
5	Compression	H.264/ H.264-H/H.264-B/MJPEG/JPEG
6	Video Streaming	Dual compressed stream with H.264/H.264-H
7	Audio Streaming	Full Duplex, Audio Input/Output 1 Ch
8	Alarm	1 digital input, 1 Relay output
9	Power Over Ethernet(PoE)	Available : power supply is not required for camera
10	P-Iris	Available
11	Digital Zoom	Available upto 4X
12	Shutter Speed	1 s to 1/10,0000 s
13	Local Storage	should support 64GB SD Card storage
14	Bit Rate	CBR and VBR Available .CBR Max @2Mbps and VBR Max at 3Mbps at Full HD Resolution
15	Audio Compression	Must have G.726 / G.711
16	Pre/Post Alarm buffer	Should be Available
17	ID/Password	Should be Available
18	Encryption	HTTP (SSL/TSL)
19	Physical Layer	10/100 base Tx Ethernet

20	Protocol	TCP,UDP,RTP,QoS Layer 3 Diff Serv, FTP, CIFS/SMB, SMTP, Bonjour, UPnP, SNMP, DNS, DynDNS, NTP, RTSP
21	IP Support	Static & dynamic both
22	Remote Administration	Should be Available
23	System Update	Should be Available
24	PC Client	Should be Available
25	Web Client	Should be Available
26	P iris	Yes
27	Simultaneous Connection	Minimum 20 users
28	Lens Type	Minimum 2.7-12mm Varifocal
29	Signal to Noise Ratio	50 db
30	Auto Exposure	Auto, Low Noise, Low Motion Blur, Manual, Anti Flicker
31	Minimum illumination	0.00 lux
32	Signal Process	Digital Signal Process
33	Motion Detection Zones/privacy zones	4 Zones
34	Auto Gain Control	On/Off
35	Back Light Compensation	On/Off
36	Electronic Shutter	1/50-1/100000
37	White Balance	Should be Available
38	Day and Night	Yes (True Day & Night)
39	Iris Control	Should be Available
40	Operating Temperature	-10 to 50 degree Celsius, 40 Deg at 95%RH
41	Power Source	DC 12 V / AC 24 V, PoE
42	On Screen Display on Monitor/Display Unit	OSD in English
43	Housing- Outdoor	IP-66 with heater, blower and sun-

44	Power consumption	Less Than 4.5W
45	Mounting bracket	Wall Mount/Pole Mount
46	Wide Dynamic Range	140dB
47	Focus Adjustment Analytics	Auto-back focus
48	ON-VIF for IP full HD camera	Available
49	IR LED	Must have Smart IR ARRAY

HD IP Dome Camera

MODEL-HT-NDV-1-HD2

Sr.	Parameters	Specification
	HARDWARE FEATURES	
1	Image device	1/3" 1.3MP CMOS Sensor
2	Resolution	1280x960 HD
3	Angle of View	78°
4	Enclosed Area	D shaped for Indoor and Corridors
5	Frame Rate	30 FPS in all resolutions on PAL Mode at 50Hz.
6	Compression	H.264/ H.264-H/H.264-B/MJPEG/JPEG
7	Video Streaming	Dual compressed stream with H.264/H.264-H
8	Audio Streaming	Full Duplex, Audio Input/Output 1 Ch
9	Alarm	1 digital input, 1 Relay output
10	Power Over Ethernet(PoE)	Available : power supply is not required for camera
11	P-Iris	Available
12	Digital Zoom	Available upto 4X
13	Shutter Speed	1 s to 1/10,0000 s

14	Local Storage	Should support 64GB SD Card storage
15	Bit Rate	CBR and VBR Available .CBR Max @2Mbps and VBR Max at 3Mbps at Full HD Resolution
16	Audio Compression	Should have G.726 / G.711
17	Pre/Post Alarm buffer	Should be Available
18	ID/Password	Should be Available
19	Encryption	HTTP (SSL/TSL)
20	Physical Layer	10/100 base Tx Ethernet
21	Protocol	TCP,UDP,RTP,QoS Layer 3 Diff Serv, FTP, CIFS/SMB, SMTP, Bonjour, UPnP, SNMP , DNS, DynDNS, NTP, RTSP
22	IP Support	Static & dynamic both
23	Remote Administration	Should be Available
24	System Update	Should be Available
25	PC Client	Should be Available
26	Web Client	Should be Available
27	Simultaneous Connection	Minimum 20 users
28	Lens Type	Minimum 2.7-12mm Varifocal
29	Signal to Noise Ratio	50 db
30	Auto Exposure	Auto, Low Noise, Low Motion Blur, Manual, Anti Flicker
31	Minimum illumination	0.01 lux
32	Signal Process	Digital Signal Process
33	Motion Detection Zones/privacy zones	4 Zones
34	Auto Gain Control	On/Off
35	Back Light Compensation	On/Off
36	Electronic Shutter	1/50-1/10000
37	White Balance	Should be Available

38	Day and Night	Yes (True Day & Night)
39	Iris Control	Should be Available
40	Operating Temperature	-10 to 50 degree Celsius,40 Deg at 95%RH
41	Power Source	DC 12 V / AC 24 V, PoE
42	On Screen Display on Monitor/Display Unit	OSD in English
43	Housing- Outdoor	IP-66 with heater, blower and sun-
	Power Consumption	Less than 4.5W
44	Mounting bracket	Wall Mount /Pole Mount
45	Wide Dynamic Range	140DB
46	Focus Adjustment Analytics	Auto-back focus
47	ON-VIF for IP full HD camera	Available
48	IR LED	Should have Smart IR Arrays

HD IP PTZ Camera Outdoor		
MODEL-HT-NP-20W-O-HD2		
Sr.	Parameters	Specification
	HARDWARE FEATURES	
1	Image device	1/3" CMOS Sensor Highly Image Sensitive
2	Resolution	1280 X 960 HD
3	Angle Of View	360°PAN ,180°Tilt
4	Frame Rate	30 FPS in all resolutions at PAL mode at 50Hz
5	Power Over Ethernet(PoE)	Available :IEEE 802.3 :Power supply is not required for camera
6	Compression	H.264/MJPEG/H.264-B/H.264H

7	Video Streaming	Dual compressed stream with H.264/H.264-H
8	P-Iris	Available :Clear and precise View in all light conditions
9	P2P Cloud Login	Available for remote viewing
10	Presets	0-255 with 360°
11	Auto Zoom	Available with Presets
12	Timer/Controller	Available with Presets from 5 to 180 sec
13	Lux	Should have 0 lux at IR Night mode and 0.01 Lux
14	Range	Upto 400 mtrs
15	Optical Zoom	Minimum 20X
16	Digital Zoom	Minimum 12X
17	Audio Input	Full Duplex, Audio Input/Output 2 Ch
18	Alarm	1 digital input, 1 Relay output
19	Audio Compression	G.726 / G.711
20	Pre/Post Alarm buffer	Should be Available
21	ID/Password	Should be Available
22	Encryption	Should be Available
23	Physical Layer	Should be Available
24	Protocol	TCP,UDP,RTP,QoS Layer 3 Diff Serv, FTP, CIFS/SMB, SMTP, Bonjour, UPnP, SNMP , DNS, DynDNS, NTP, RTSP
25	IP Support	Static, dynamic both
26	Remote Administration	Should be Available
27	P2P Cloud Login	Available for remote viewing
28	System Update	Should be Available
29	PC Client	PC application Client with a Channel
30	Web Client	Viewer through HTTP/TCP IP (minimum) System configuration setting/ streaming

31	Simultaneous Connection	Minimum 20 users or more
32	Lens Type	Minimum 20X optical & 12X digital
33	IR Range	Shall cover upto 150 mtrs.
34	Signal to Noise Ratio	>50 db
	Power Consumption	Less than 15W
35	Auto Exposure	Auto, Low Noise, Low Motion Blur, Manual
36	Minimum illumination	0.01lux
37	Signal Process	Should be Available
38	Motion Detection Zones/privacy zones	4 Zones
39	Auto Gain Control	Should be Available
40	Back Light Compensation	Should be Available
41	Electronic Shutter	Should be Available
42	White Balance	Yes
43	Day and Night	Auto, Day & Night
44	Iris Control	Should be Available
45	Operating Temperature	-10 to 50 degree Celsius 40 deg celsius at 95% RH
46	Power Source	24V AC - Power Adaptor Supplied & PoE
47	On Screen Display on Monitor/ Display Unit	OSD in English
48	Housing Outdoor	Plastic/Aluminum Outdoor/IP66
49	Wide Dynamic Range	Shall have 140DB
50	Focus Adjustment Analytics	Auto-back focus
51	ON-VIF for IP full HD	Yes

	camera	
52	IR LED	Yes

Joystick Controller

MODEL-HT JC-01

Sr.	Category	Description
1	Keyboard Keypanel	Electromechanical
2	Joystick	Should support Three Dimensional (3-axis), vector-solving, with twisting, return to-center head
3	Keyboard Connector	RJ-45, RS232, RS485, RS422, USB
4	Keyboard Communication	Direct Mode, Network Mode
5	Direct Mode	Interface: RS232/RS485
6	Network Mode	Interface: RJ45 DVR/Network Dome: IP Address/Port/Protocol
7	Resolution	LCD, 75.2mm x 33.85mm
8	Power Supply	Power adapter, input 100V-240V 50Hz / 60Hz, output DC12V/1000mA
9	Baud Rates	2400/4800/9600
10	Power Consumption	5W
11	Working Temperature	-10- 55 °C
12	Atmosphere Pressure	86kpa-106kpa

Network Video Recorder

MODEL-HT-NVR-32

Sr.	Parameter	Specification
1	Max Channel	32 Channel
2	Channel Division	1, 2x2, 3x3, 4x4
3	Full Screen	Full Screen in the Client S/W
4	Page	Multi Monitor support, Video window and Electronic Map on two separate monitor

5	OSD Text	Yes
6	PTZ Control	PTZ control using mouse & GUI
7	Video Network	H.265,H.264,MJPEG-4/MJPEG
8	Audio	Two-way Audio (G.711/ G.726)
9	Multiple Camera search	Multiple camera search at the same time
10	Search	Date, Time, Event, Log
11	Play	Forward, Backward, adjustable playback speed
12	Total Management	Group add , delete, edit, Group management
13	Camera	Add, Edit, Delete Use master account/ specific account
14	Schedule	Recording schedule support
15	Camera Notification	spot (POP up Window) On Event
16	Configuration	Configuration (Remote server Setup)
17	Still image	JPEG
18	VCA	Crossing Line, Intrusion Detection, Object counting, Tampering Object Removal
19	E-Map	JPEG/ BMP Support
20	Disk Interface	SCSI/ SAS / SATAII
22	Storage Expansion	Expandable upto minimum 48 TB internally or externally
24	Protocols	HTTP, TCP/IP, IPv4/IPv6, UPNP, RTSP, UDP, SMTP, NTP, DHCP, DNS, IP Filter,PPPOE, DDNS, FTP, Alarm Server,ONVIF Version 2.2
25	Max User Account	Minimum 32 Users

Full HD LED Display	
MODEL-HT-D-65 L	
Diagonal Screen Size	65 Inches
Brightness	500 Nits
Native Resolution	1920 x 1080 Full HD

Display Colors	16.7 M Display Colors
Static Contrast	4000:1
Dynamic Contrast	300000:1
Viewing Angle	178 / 178 Degree
Response Time	8ms
I/O Ports	HDMI x 2, VGA (PC) x 1, Audio 3.5 mm In x 1, Mini AV Out, Headphone, USB x 2, AV Port x2
Audio	20 Watt x 2
Aspect Ration	4:3 / 16:9
Features	USB Plug & Play (Movie, Text, Photos, Music), Auto Sleep Timer
Accessories	HDMI Cable x1 (5mts), Power Cable, Table Mont, Wall Mount, Full Function Remote Control
Power Requirement	100-240V ($\pm 10\%$)
Power Consumption	200 Watts

CAT 6 Cable	
Conductor	4Pair AWG Solid Bare Copper
Insulation	High Density Polyethylene
Pairs	2 Insulated conductors twisted together
Sheath	FR-PVC insultaion thickness .2mm nominal
Cable Diameter	6.1mm Nominal
Cable Weight per Box	13.6 kgs Nominal
Characteristics Impedance	100 \pm 6 Ω
Conductor Resistance	$\leq 9.38\Omega / 100m$
Insulation Resistance	100M Ω
Mutual Capacitance	<5.6nF/ 100m
Resistance Unablance	5% Max

Capacitance Unbalance	330pF/100M
Delay Skew	<45ns
NVP(%)	69%
Operating Voltage	72V
Dielectric Strength	1KV dc or .75kV ac for 1min.
Compatible with all systems TIA/EAI 568.C-2 AND ISO/IEC 11801 Class E	

PVC Conduit

Nominal size	25mm
Tolerance on OD(mm)	0.4
Packing per Bundle(mtr)	75

Optical Fibre Cable

Cores	12
Construction	Armoured

HDPE Pipe

Visual Appearance	Internal and External surface of pipe should be smooth and clear. Ends should be clearly cut and square with axis of pipe
Hydraulic Characteristics	4.1Mpa induced stress for 48hrs at 80°C
	3.5Mpa Induced Stress for 136 hrs at 80°C

16 Port Network Switch

MODEL-HT-NS-16

Sr.	Parameters	Specification
1	HARDWARE FEATURES	

2	Standards and Protocols	Must be IEEE 802.3i, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3z, IEEE 802.3ad, IEEE 802.3x, IEEE 802.1d, IEEE 802.1s, IEEE 802.1w, IEEE 802.1q, IEEE 802.1p
3	Interface	Must be 16 Ports (Auto Negotiation/Auto MDI/MDIX)
4	Network Media	10BASE-T: UTP category 3, 4, 5 cable (maximum 100m) 100BASE-TX/1000Base-T: UTP category 5, 5e or above cable (maximum 100m) 1000BASE-X: MMF, SMF
	Fan Quantity	Minimum 2 nos.
6	Power Supply	100~240VAC, 50/60Hz
7	Power Consumption	Maximum(PoE on): 222.15W (220V/50Hz)
8	PoE Budget	Less than 192W
9	PoE+ Ports(RJ45)	Standard: 802.3at/af compliant PoE+ Ports: 24 Ports Power Supply: 180W
11	PERFORMANCE	
12	Bandwidth/Backplane	Minimum 12.8Gbps
13	Packet Forwarding Rate	Minimum 9.5Mpps
14	MAC Address Table	Minimum 8k
15	Jumbo Frame	Minimum 9216 Bytes
16	SOFTWARE FEATURES	
17	Quality of Service	Support 802.1p CoS/DSCP priority Support 4 priority queues Queue scheduling: SP, WRR, SP+WRR Port/Flow-based Rate Limiting Voice VLAN
18	L2 Features	IGMP Snooping V1/V2/V3 802.3ad LACP (Up to 6 aggregation groups, containing 4 ports per group) Spanning Tree STP/RSTP/MSTP LLDP, LLDP-MED BPDU Filtering/Guard TC/Root Protect Loop back detection

		802.3x Flow Control
19	VLAN	Supports up to 512 VLANs simultaneously (out of 4K VLAN IDs)
20	Access Control List	L2~L4 package filtering based on source and destination MAC address, IP address, TCP/UDP ports
21	Security	SSH v1/v2 SSL v2/v3/TLSv1 Port Security Broadcast/Multicast/Unknown-unicast Storm Control
22	Management	Web-based GUI and CLI management SNMP v1/v2c/v3, compatible with public MIBs and RMON (1, 2, 3, 9 groups) CPU Monitoring Port Mirroring Time Setting: SNTP Firmware Upgrade: TFTP & Web System Diagnose: VCT SYSLOG & Public MIBS

Gigabit Switch		
MODEL-HT-GS-24		
Sr.	Parameters	Specification
1	HARDWARE FEATURES	
2	Standards and Protocols	Should be IEEE 802.3i, IEEE 802.3u, IEEE 802.3ab, IEEE802.3z, IEEE 802.3ad, IEEE 802.3x, IEEE 802.1d, IEEE 802.1s, IEEE 802.1w, IEEE 802.1q, IEEE 802.1x, IEEE 802.1p
3	Interface	Should be 24 10/100/1000Mbps RJ45 Ports (Auto Negotiation/Auto MDI/MDIX) 4 1000Mbps SFP Slots 1 Console Port 1 Micro-USB Console Port
4	Network Media	Must have 10BASE-T: UTP category 3, 4, 5 cable (maximum 100m) 100BASE-TX/1000Base-T: UTP category 5, 5e or above cable (maximum 100m) 1000BASE-X: MMF, SMF

5	Fan Quantity	Minimum 2
6	Power Supply	100~240VAC, 50/60Hz
7	Power Consumption	Maximum (PoE on): 468.7W (110V/50Hz)
9	PoE+ Ports(RJ45)	Standard: 802.3at/af compliant PoE+ Ports: 24 Ports Power Supply: 384W
11	PERFORMANCE	
12	Installable SFP+ Transceivers and Direct Attach Copper (DAC) Cables	Available
13	Max Number of Stacking Ports Installable	Minimum 4 SFP+
14	No. of Units Per Stack	Up to 6 units
15	Stacking Speed (Per Port)	Minimum 20Gbps (Full-Duplex)
16	PERFORMANCE	
17	Switching Capacity	Should support 56Gbps
18	Packet Forwarding Rate	Minimum 41.7Mpps
19	MAC Address Table	Upto 16K
20	Packet Buffer Memory	Upto 1.5MB
21	Jumbo Frame	9216 Bytes
24	SOFTWARE FEATURES	
25	Quality of Service	Support 802.1p CoS/DSCP priority Support 8 priority queues Queue scheduling: SP, WRR, SP+WRR Port/Flow- based Rate Limiting Voice VLAN

26	L2 and L2+ Features	<p>Static Routing DHCP Relay DHCP Server IGMP Snooping V1/V2/V3 802.3ad LACP (Up to 14 aggregation groups, containing 8 ports per group) STP/RSTP/MSTP BPDU Filtering/Guard TC/Root Protect Loopback detection 802.3x Flow Control L2PT</p>
27	VLAN	<p>Supports up to 4K VLANs simultaneously (out of 4K VLAN IDs) 802.1Q/MAC/Protocol-based/Private VLAN GARP/GVRP</p>
28	Access Control List	<p>L2~L4 package filtering based on source and destination MAC address, IP address, TCP/UDP ports, 802.1p,DSCP, protocol and VLAN ID Time Range Based</p>
29	Security	<p>IP-MAC-Port Binding AAA 802.1x and Radius Authentication DoS Defend Dynamic ARP Inspection (DAI) SSH v1/v2 SSL v3/TLSv1 Port Security Broadcast/Multicast/Unknown-unicast Storm Control</p>
30	IPv6	<p>Dual IPv4/IPv6 stack Multicast Listener Discovery (MLD) Snooping IPv6 neighbor discovery (ND) Path maximum transmission unit (MTU) discovery Internet Control Message Protocol (ICMP) version 6 TCPv6/UDPv6 IPv6 ACL DHCPv6 Snooping IPv6 Interface</p>

31	IPv6 Applications	DHCPv6 Client Ping6 Tracert6 Telnet(v6) IPv6 SNMP IPv6 SSH IPv6 SSL Http/Https IPv6 TFTP IPv6 ACL IPv6 Interface IPv6 Routing DHCPv6 Relay DHCPv6 Snooping
32	Management	Web-based GUI and CLI management SNMP v1/v2c/v3, compatible with public MIBs and private MIBs RMON (1, 2, 3, 9 groups) sFlow PPPoE Circuit ID DHCP/BOOTP Client, DHCP Snooping, DHCP Option82 Dual Image CPU Monitoring Port Mirroring Time Setting: SNTP Integrated NDP/NTDP feature Firmware Upgrade: TFTP & Web System Diagnose: VCT SYSLOG & Public MIBS Password Recovery

SFP Module

Sr.	Parameters	Specification
1	Standards and Protocols	IEEE 802.3z, CSMA/CD, TCP/IP
2	Wave Length	1310nm
3	Power Supply	3.3V
5	Cable	Single-mode Fiber
6	Fiber Type	9/125 μ m Single-mode
7	Max. Cable Length	10km
8	Data Rate	1.25Gbps

9	Port Type	LC/UPC
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(AS PER SAMPLE SUBMITTED BY YOU AND APPROVED BY THIS OFFICE)

TERMS AND CONDITIONS:-

1. **F.O.R.:-** The above rates are FOR destination anywhere in Haryana at supplier's risk
2. **GST :-** Inclusive in above rates.
3. **FREIGHT CHARGES:-**Inclusive.
4. **DELIVERY PERIOD:-** 2 to 3 Months from the date of placement of supply order.
5. **Warrantee:-** Three years from the date of supply/installation (including batteries wherever applicable).
6. **PAYMENT TERMS** 90 % payment will be released within two weeks time after physical delivery of inspected /accepted goods in physically good condition at consignee godown. Remaining 10 percent will be released after satisfactory installation/ working of the items & training, including demo (minimum 3 days) at respective consignee's destination. Delay in payments to the suppliers beyond the stipulated credit period indicated in the supply order, unless supported by cogent reasons and approved by a higher authority, will attract penal interest on the defaulting amount @ Rs. 25/- per rupees one lakh per day of delay beyond the stipulated credit period. Non provision of adequate budget will be no ground for delay in payments to the supplier.
7. **INSPECTION:-** The inspection will be conducted at the premises of the firm before affecting the supplies.
 In case, the material offered for inspection by the firm fails to meet the specifications stipulated in NIT/Order/Contract and the samples are rejected by the Inspecting Committee, the Indenting Department will have the right to levy a penalty at 0.1% of the total order value. In case, the material offered for inspection fails during the 2nd inspection also, the Indenting Department will have the right to increase the penalty to 0.25% of the total order value. In case, the material offered fails during the 3rd and final inspection also, the firm will be liable for penal action including forfeiture of EMD, risk purchase, debarring/ blacklisting in future, and no further opportunity for inspection would be provided to the supplier firm.
8. **Performance Guarantee:-** As the Machine will be warranted for three years, so performance guarantee will be released after warranty period of three years.

(OTHER TERMS & CONDITION AS PER SHEET ATTACHED SCHEDULE-B).

Encls.a/a

Sd/-
 Assistant Director,
 Supplies & Disposals, Haryana,
 For & On behalf of Governor of Haryana.