



GUSHKARA MAHAVIDYALAYA

NAAC Accredited 'B++' (Cycle-3)

P.O. GUSHKARA, DIST. PURBA BARDHAMAN, PIN 713128, W.B.

Phone: (03452) 255 105, Email: guskaramahavidyalaya@gmail.com

Tender Reference No.: GM/CCTVINST/NIT-3/2025

E-tenders are invited from eligible bonafide parties with requisite credentials for supply and Installation of CCTV at the college premises. Rates should be quoted in the prescribed format (standardized BOQ format).

All the relevant documents, **Specification (Annexure-“A”)** etc. should be downloaded by the interested bidders from the website: <https://wbtenders.gov.in>. Any addendum/corrigendum/ Extension of validity period will be notified at the aforesaid e-Tendering portal: <https://wbtenders.gov.in>. Bidders are requested to go through the following very carefully before submission of bids. When a tendering firm submits their tender in response to this N.I.T., they will be deemed to have understood fully the contents, the requirements, terms & conditions of this tender.

A. CCTV installation at the college:

Login by bidder: A bidder desirous of taking part in an e-tender invited by a State Government shall login to the e-Procurement portal of the Government of West Bengal using their login ID and password using valid DSC.

B. Eligibility of Bidder:

The bidder must be an eligible bonafide party with requisite credentials. Certificates/Authorization must be submitted online in support of the claim.

C. Validity of Bid: The tendered rate shall be valid till 1 year from the date of acceptance.

- a. **Documents:** - Bidders shall submit their Valid License, GST Registration Certificates, PAN No., P. Tax, Bank Account No., and specific OEM Authorization for CCTV, Components and Credentials in support of CCTV installation (within 3 years) from any Govt./Govt. Aided undertaking valued at not less than Rs. 2 lakhs.
- b. The OEM Certification should be done by an official not below the rank of regional head of the manufacturer for this region or the country. The company should clearly mention the name, designation in Letterhead and official seal of the manufacturing company.
- c. Bidders must have an office and service centre in WEST BENGAL. Supporting documents should be submitted.
- d. The intending bidders must upload Manufacturer, Model No. and Technical Compliance for different items of their offer under the technical cover. Otherwise bid will be cancelled.
- e. Bidder must provide Sample of all products at the project site with installation and provision of demonstration before Technical Evaluation of the Bid.
- f. All Sample Items will be verified by the Institute authority before Technical Evaluation of the Bid.
- g. All cost of structure and installation must be included in the bid and further no charges will be paid.

Criteria

- I. The product must be "**Make in India**". The OEM must be in operation in India. The manufacturer should have over **5 years** of experience in manufacturing networking equipment.
- II. The OEM must possess a valid GST number and a proper trade license.
- III. The OEM must have a service centre and a local representative in the state to ensure a quick response.
- IV. The OEM of component such as IP Camera, Storage, NVR/VMS Software should not be blacklisted or banned or barred by any government agency like **GeM** or in any country. The OEM Should not be charged or prosecuted for any cheating or fraudulent case(s) in India for their respective product line.
- V. The OEM of CCTV Camera should be a fulltime member of ONVIF and quoted models should be listed on official website of ONVIF. The CCTV OEM should not be suspended/ blacklisted by ONVIF.
- VI. The OEM of CCTV component should comply with "Make-in-India" policy and guidelines as laid by Government of India. The OEM of CCTV component should also comply with all subsequent guidelines and orders published by various departments of Government of India such as Department of Expenditure (Ministry of Finance), STQC certified etc.
- VII. The camera OEM should be a genuine manufacturer and should have official valid H.265 HEVC Certificate and should be listed on HEVC website at the time of submitting bid. They should be paying the licensed fee for using the genuine HEVC compression legally. The same will be checked on following official website. (<https://www.mpegla.com/programs/hevc/licensees/>)

E. Others:

- i. **The bid price must be final price inclusive of Supply of Materials, Wiring and Connectivity, Labour hiring charges, Cost of Carriage and all other charges.**
- ii. The prospective bidder shall have to execute the work in such a manner so that appropriate service level of the work is maintained during the contract period. If any deficiency / damage is found during the period as mentioned above, the Bidder shall be held responsible. The bidder may quote the rate considering the above aspects. The intending Bidders shall clearly understand that whatever may be the outcome of the present invitation of Bids, no cost of Bidding shall be reimbursable by the College.
- iii. The College authority does neither bind itself to accept the lowest rates of any tender nor to assign any reason thereto for non-acceptance of the tender.
- iv. The college authority has the full right to check/verify the original copy of documents submitted by the bidder at any point during the e-tendering process.

It is obligatory for the bidder to maintain the time schedule for completion of the project. In case of delay successful bidder will be held responsible & action will be taken as per condition of tender as laid down herein without prejudice. Any sort of plea for Part Performance / No Performance / Defective Performance against work order, will not be considered and this will include incidents occurring due to acts of God.

- v. EMD amounting **Rs. 25,000/-** (Rupees twenty-five thousand) should be deposited in bank account of the college. **Account Name: GUSHKARA MAHAVIDYALAYA, Account No. 11254335094, Bank Name: SBI, Branch: Itachanda.** The photocopy of the deposited EMD should be attached.

F. Payment:

- Tax Invoice and the Challan against the work is/are to be sent in DUPLICATE and should invariably be submitted along with supplies.
- Payment shall be made after completion of the work order satisfactorily in all respects. No interest shall be paid to the firm if the payment is delayed due to whatever reasons. In no circumstances, delivery schedule should be affected & or linked with the payment of outstanding bills. The payment of bills shall be withheld, in case of violation of any tender terms & conditions.

Date & Time Schedule

Sl. No.	Particulars	Date	Time
1.	NIT publication date	29.07.2025	3:00
2.	Bidding starts	29.07.2025	3:00
3.	Bidding closing	05.08.2025	6:00
4.	Bid opening date	08.08.2025	1:00

Bid Opening Location: Gushkara Mahavidyalaya, P.O. Gushkara, Dist. Purba Bardhaman, PIN 713128, W.B.

Sd/- Dr. S. Chatterjee
Principal
Gushkara Mahavidyalaya

Instructions to Bidders

General guidance for E-Tendering:

The following are the instructions / guidelines for electronic submission of the tenders for assisting the Original Manufacturer/Authorized Dealers/Suppliers to participate in E-Tendering:

- I. **Registration:** Any eligible manufacturer / authorized concerns willing to take part in the process of E-Tendering will have to be enrolled & registered with the Government e-procurement system, through logging on to <https://wbtenders.gov.in>.
- II. **Digital Signature Certificated (DSC):** Each Manufacturer/Authorized Dealers/Suppliers is required to obtain a Class-II or Class-III Digital Signature Certificate (DSC) for submission of tenders for the approval service of the National Informatics Centre (NIC) on payment of requisite amount. Details are available at the website stated in Clause-I above. DSC is given as a USB e-Token.
- III. **The Manufacturer/Authorized Dealers/Suppliers** can search and download the NIT and Tender Document(s) electronically from computer once he logs on to the website mentioned in Clause-I using the Digital Signature Certificate. This is the only mode of collection of Tender Documents.
- IV. **Submission of Tenders:** Tenders are to be submitted online to the website stated in Clause-I in two folders, one in Technical Proposal & the other is Financial Proposal before the prescribed date & time using the Digital Signature Certificate (DSC). Virus scanned and digitally signed copies of the documents are to be uploaded. The documents will get encrypted (transformed into non-readable formats).
- V. **Technical Proposal:** The Technical Proposal should contain scanned copies of the following cover (folder):

a) **Statutory Cover** Containing the following documents –

i. NIT (Online)

b) **Non-Statutory Cover** Containing the following documents –

Sl.No.	Category	Sub-Category	Details
1.	Certificates	Certificates	• Manufacturer/Authorized Dealer/Authorized Supplier • GST Registration • PAN • P.Tax (Challan) • IT receipt • Credentials of supplying previously the same to the Govt./Govt. Aided undertaking • OEM Certification
2.	Company Details	Company details	• Trade License

VI. Financial Proposal:

- a) **BOQ:** The Financial Proposal should contain Bill of Quantities (BOQ) in two covers (folder). The contractor is to quote the rate online through computer in the space marked for quoting rate in the BOQ after downloading the prescribed format from the website.

Opening & Evaluation of Tender:

- I. **Opening of Bid Proposal: Nodal Officer and Procurement Officers** will open the bids of the Tender in presence of the **members of Purchase & Tender Sub-Committee**.
- II. **Intending tenderers may remain present if they so desire.**
- III. Cover (folder) for Statutory Documents will be opened first and if found in order, cover (folder) for Non-Statutory Documents will be opened. If there is any deficiency in the Statutory Documents the tender will summarily be rejected.
- IV. Decrypted (transformed into readable formats) documents of the Non-Statutory cover will be downloaded and handed over to the Purchase & Tender Sub-Committee.
- V. Summary list of technically qualified tenderers will be uploaded online.
- VI. Pursuant to scrutiny and decision of the Purchase & Tender Sub-Committee the Summary List of eligible tenderers and the serial number of work for which their proposal will be considered will be uploaded in the web portals.
- VII. During evaluation the committee may summon the tenderers and seek clarification / information or additional documents or original hard copy of any of the documents already submitted and if these are not produced within the stipulated time frame, their proposals will be liable for rejection.

Sd/- Dr. S. Chatterjee
Principal
Gushkara Mahavidyalaya

Terms and Conditions

1. **Authorized Representative of Manufacturer or Authorized Concern:** The Manufacturer or Authorized Concern shall not assign the agreement or sublet any portion of the work. The Manufacturer or Authorized Concern, may however, appoint an authorized representative in respect of one or more of the following purposes only.
2. **Supplementary/Additional Items of works:** Notwithstanding the provisions made in the related printed tender form, any items of the work which can be legitimately be considered as not stipulated in the specific price schedule of probable items of work but has become necessary as a reasonable contingent item during actual execution of work will have to be done by the contractor.
3. **Commencement and timely completion of work:** All the supply and the work must have to be completed in all respects within the time specified in notice inviting Tender from the date of commencement as mentioned in work order. Time for completion as specified in the tender shall be deemed to be the essence of the contract.
4. **Programme of work:** Before actual commencement of work the contractor shall submit a programme of construction of work with methodology clearly showing the required materials, men and equipment. The contractor must pray in writing showing sufficient reasons therein for modification of programme.

**Recommended Channel of NVR: 32 Channel (32 Channel IP Support).
NVR Specification**

S.NO	Parameters	Value	Compliance	Remarks
1	Type of Recording Device*	NVR		
2	IP Camera Support*	Yes		
3	PTZ Camera Support*	Yes		
4	Capability of Recorder to Work with Other Makes of CCTV Cameras (ONVIF support)*	Yes		
5	Number of IP Camera supported in Recorder	32 or more		
6	Supported Compression Technique*	H.265 & H.264		
7	Maximum Number of cameras to be viewed on a single display*	32 or better		
8	Total number of simultaneous local views	1 or better		
9	Simultaneous Monitoring Connections for Cameras (Users in Local Network for Client Connection)*	2 or better		
10	Min. Incoming bandwidth (Mbps)*	256 or better		
11	Audio Support*	Yes		
12	Two-way Audio Support*	Yes		
13	Type of Encryption*	HTTPS , HTTP , WATER MARKING		
14	Alarm Input*	16		
15	Alarm Output*	4		
16	Supported Network Protocols*	As per the project requirement		
17	Supported Interface*	Ethernet ,HDMI, VGA,USB, RS 232, RS-485		
18	Number of Ethernet Ports*	2		
19	Number of HDMI Ports*	1		
20	Number of VGA Ports*	1		
21	Number of eSATA Port*	1		
22	Number of USB Ports*	3(1 front USB 2.0 port, 2 rear USB 3.0 ports)		
23	Slilent feature Supported	Remote Administration, OTA update,PC Client, Web Client		
24	Recording schedule support*	Yes along with MD/Alarm based,/Event based /Analytic based		
25	Bandwidth Control*	Constant Bit Rate (CBR), Variable Bit Rate (VBR)		
26	Camera Notification*	POP up Window on Event, E-mail SNAP SHOT		
27	Search*	Date, Time, Event, Log, Motion, Bookmarks, Motion Forward, Full Screen, Next Camera, Previous Camera, Repeat		
28	Camera*	Add, Edit, Delete		
29	Number of Hard Disk Slots	4 or better		
30	Storage Capacity of each HDD slot	10TB or better		
31	Power Input*	100-240 VAC		
32	Minimum Operating Temperature*	-10		
33	Maximum Operating Temperature*	50		
34	Relative Humidity Non Condensing at 40 deg C*	90		
35	IVS support	As per the camera		
36	Certifications	FCC, UL, CE, RoHS, BIS		

Camera Type: 2MP Fix Dome Camera
Camera Specification:

SL No.	Feature	Specification	Compliance
1	Image Sensor	1/2.8" 2MP PS CMOS Image Sensor (0.9071 centimeters)	
2	Shutter Speed	Auto/Manual 1/3 s–1/100,000 s	
3	Effective Pixels	1920 (H) × 1080 (V)	
4	Minimum Illumination	0.005 lux@F1.6 (Color, 30 IRE), 0.0005 lux@F1.6 (B/W, 30 IRE), 0 lux (IR on)	
5	Max. Aperture	F1.6	
6	Lens Mount	M12	
7	Angle Adjustment	Pan: 0°–355°, Tilt: 0°–65°, Rotation: 0°–355°	
8	RAM/ROM	128 MB/128 MB	
9	Gain Control(AGC)	Auto/ Manual	
10	Noise Reduction	3D NR	
11	Privacy Mask	4 areas	
12	S/N Ratio	> 56 dB	
13	IR Number	1 IR LED, 1Warm Light	
14	IR	IR Range of 30 Mtr.	
15	Warm Light	Warm Light Range of 30 Mtr.	
16	Lens	3.6mm Lens (2.8mm Optional)	
17	Angle of View	3.6 mm: H: 87°, V: 44°, D: 105°; 2.8 mm: H: 103°, V: 55°, D: 123°	
18	Video Compression	H.265, H.264+, H.264, H.264H, H.264B, MJPEG	
19	Back Light Compensation	BLC/ HLC/ DWDR	
20	Day/Night	Auto(ICR)/Color/B/W	
21	Stream Capability	Support Dual stream	
22	OSD	Camera title, Date & Time	
23	Audio	Built-in Mic	
24	Audio Compression	G.711a, G.711Mu, PCM, G.726	
25	Image Rotation	0°/90°/180°/270°	
26	Bit Rate	H.265: 12 kbps–4096 kbps, H.264: 32 kbps–4096 kbps	
27	Bit Rate Control	VBR, CBR	
28	ONVIF	Profile S, Profile G, Profile T	
29	Ethernet	RJ-45 (10/100 Base-T)	
30	Protocol	SFTP, IPv6, IPv4, DNS,RTCP, NTP, RTP, HTTP, HTTPS, SNMP V1/ V2/ V3, TCP/IP, PPPoE, NFS, UDP, ICMP, SSL, DHCP, SMTP, RTSPS, ONVIF (Profile S, Profile G, Profile T), unicast, multicast	
31	Cyber Security	AES 256-bit Encryption, Configuration encryption, trusted execution, Digest, security logs, WSSE, account lockout, syslog, video encryption, IP/MAC filtering, HTTPS, trusted upgrade, trusted boot	
32	SDK and API	Support	
33	User/Host	6 (Total bandwidth: 24 M)	
34	Mirror Function	Support	
35	Audio	Built-in Mic	
36	Smart IR	Support	
37	Weatherproof Standard	IP67 & IK10	
38	Operating Temperature	–40 °C to +60 °C (–40 °F to +140 °F)	
39	Power Source	12 VDC/PoE (802.3af)	
40	Browser	IE: IE11, Chrome, Firefox	
41	Storage	SFTP, NAS, Mirco SD card (Max. 512GB)	
42	Operating Humidity	≤95% (RH), non-condensing	
43	Casing	Metal	
44	Certification	CE, FCC,RoHS,BIS, STQC	

**Recommended Channel of NVR: 32 Channel (32 Channel IP Support).
NVR Specification**

S.NO	Parameters	Value	Compliance	Remarks
1	Type of Recording Device*	NVR		
2	IP Camera Support*	Yes		
3	PTZ Camera Support*	Yes		
4	Capability of Recorder to Work with Other Makes of CCTV Cameras (ONVIF support)*	Yes		
5	Number of IP Camera supported in Recorder	32 or more		
6	Supported Compression Technique*	H.265 & H.264		
7	Maximum Number of cameras to be viewed on a single display*	32 or better		
8	Total number of simultaneous local views	1 or better		
9	Simultaneous Monitoring Connections for Cameras (Users in Local Network for Client Connection)*	2 or better		
10	Min. Incoming bandwidth (Mbps)*	256 or better		
11	Audio Support*	Yes		
12	Two-way Audio Support*	Yes		
13	Type of Encryption*	HTTPS , HTTP , WATER MARKING		
14	Alarm Input*	16		
15	Alarm Output*	4		
16	Supported Network Protocols*	As per the project requirement		
17	Supported Interface*	Ethernet ,HDMI, VGA,USB, RS 232, RS-485		
18	Number of Ethernet Ports*	2		
19	Number of HDMI Ports*	1		
20	Number of VGA Ports*	1		
21	Number of eSATA Port*	1		
22	Number of USB Ports*	3(1 front USB 2.0 port, 2 rear USB 3.0 ports)		
23	Slilent feature Supported	Remote Administration, OTA update,PC Client, Web Client		
24	Recording schedule support*	Yes along with MD/Alarm based,/Event based /Analytic based		
25	Bandwidth Control*	Constant Bit Rate (CBR), Variable Bit Rate (VBR)		
26	Camera Notification*	POP up Window on Event, E-mail SNAP SHOT		
27	Search*	Date, Time, Event, Log, Motion, Bookmarks, Motion Forward, Full Screen, Next Camera, Previous Camera, Repeat		
28	Camera*	Add, Edit, Delete		
29	Number of Hard Disk Slots	4 or better		
30	Storage Capacity of each HDD slot	10TB or better		
31	Power Input*	100-240 VAC		
32	Minimum Operating Temperature*	-10		
33	Maximum Operating Temperature*	50		
34	Relative Humidity Non Condensing at 40 deg C*	90		
35	IVS support	As per the camera		
36	Certifications	FCC, UL, CE, RoHS, BIS		

Camera Type: 2 MP 45x Network PTZ Camera

Sr. No	Features	Specifications	Compliance Yes / No	Remarks
1	Sensor Type	CMOS		
2	Image Sensor size	1/2.8"		
3	Effective Pixels	1920(H)x1080(V), 2 MP		
4	Signal to Noise Ratio	More than 50 db		
5	Min Illumination	0Lux@F1.6(IR on)		
6	Focal Length	3.95mm~177.7mm		
7	Shutter Speed	1/1s~1/30000s		
8	White Balance	Auto, ATW, Indoor, Manual, Outdoor		
9	Focus Control	Auto/ Manual		
10	Close focus distance	0.1 m~1 m		
11	Angle of view	H: 65.7°~1.9°; V: 39.4°~1.1°; D: 73.1°~2.1°		
12	AGC Control	Auto/ Manual		
13	Back Light Compensation	BLC/HLC/WDR (120db)		
14	Optical zoom	45x		
15	Digital zoom	16x		
16	Pan Travel	0~360 Deg , Pan speed 0.1~200 Deg/sec		
17	Tilt Travel	-20~90 Deg ,Tilt speed 0.1~120 Deg/sec		
18	Preset	280		
19	Preset speed	Pan 300 Deg/sec, Tilt 200 Deg/sec		
20	IR Range	upto 300 meter		
21	Petaures	Scan		
22	Privacy Masking	upto 24 areas		
23	Power up actions	after power failiure		
24	Idle Motion	Active preset/Scan/Tour/Pattern		
25	IR Cut Filter	Auto/Color/B&W		
26	Video Compression	H.265/H.264/MJPEG		
27	Video Stream	fps) fps) Sub stream 2: D1/CIF (1~25/30 fps) Sub stream 3: D1/CIF (1~25/30 fps)		
28	Audio Compression	G.711A; G.711Mu; G.726; PCM		
29	Alarm Port in/out	7 Ch in & 2 Ch out		
30	Audio I/P	1 Ch in & 1 Ch out		
31	IVS Features(Optional)	SMD, Face Detection		
32	Ethernet	1 RJ-45 (10/100 Mbps) Port		
33	Protocols	v1/v2c/v3; DNS;NTP; RTSPS;IGMP; ICMP; DHCP; PPPoE; ARP;ONVIF(S,G,T), Unicast,		
34	Max Users account	20 Users		
35	Temperature	-40~70 Deg Celcius		
36	Humidity	95 % RH		
37	Micro SD Card	SD Card (Max 512GB) supported.		
38	Weather Proof Standard	IP 67 & IK 10,TVS 8000V lightning proof, surge protection, voltage transient protection		
39	Power Source	24 VDC, 2.5 A ± 25% PoE+ (802.3at)		
40	Power Consumption	26 W max		
41	Certifications	CE, FCC, RoHS, UL & BIS,STQC		

Camera Type: 4MP Dual Light Bullet Camera - 50Mtr.

Camera Specification:

Sr.No.	Parameter	Minimum Specification	Compliance (YES/NO)	Remarks.
1	Type of Camera Housing	Bullet		
2	Camera Type	IP Based		
3	Image Sensor Type*	CMOS		
4	Image Sensor Size*	1/2.7 or better		
5	Camera Image Sensing capacity (Picture Mode) *	4MP or better		
6	Resolution*	2688 (H) × 1520 (V) @25/30 fps		
7	Day/Night Capable*	Yes		
8	IR illumination Range(mtr)*	50 Mtr		
9	Warm Light Range*	30 Mtr		
10	Lens Type*	Fixed lens		
11	Focal Length(mm)*	3.6		
12	Iris Control*	Fixed Iris		
13	Frame Rate (fps)*	Main stream: 4M (2688 × 1520)@1-20 fps/ , Sub stream 1: (2560×1440)1~25/30fps		
		Sub stream 1: D1@1-25/30 fps , Sub stream 3: D1/VGA/CIF@(1-25/30fps)		
14	Video Compression*	H.265; H.264+; H.264; H.264B; MJPEG		
15	Video Streams	Fourth-Stream or better		
16	Digital Zoom*	16x		
17	Number of Audio Input Channel*	1		
18	Mirror Function	Supported		
19	Number of Audio Output Channel*	1		
20	Microphone Support*	Built in Mic		
21	Alarm Support*	Yes		
22	Number of Alarm Digital Input*	1		
23	Number of Alarm Relay Output*	1		
24	Pre/Post Alarm Buffer*	Yes		
25	Multi-Level User ID/Password*	Yes		
26	IP Address Filtering*	Yes		
27	Minimum Illumination for Capturing Color Image*	0.001 lux@F1.4 (Color, 30 IRE), 0.0001 lux@F1.4 (B/W, 30 IRE), 0 lux (IR on)		
28	Electronic Shutter Speed(sec)*	Auto/Manual 1/3 s-1/100000 s or better		
29	WDR (Wide Dynamic Range) *	120 dB or better		
30	SNR (Signal to Noise Ratio) *	>55 Db or better		
31	White Balance	Yes		
32	Auto Gain Control	Yes		
33	Back Light Compensation*	Yes		
34	Remote Administration	Yes		
35	ONVIF Support*	Profile S, Profile G		
36	Privacy Zones*	4		
37	Supported Protocols*	As per the project requirement		
38	Max supported SD Card	512GB or better		
39	Protection*	IP67, or better		

40	Vandal Resistant	IK10 or better		
41	Mounting Type	Wall, Pole		
42	Power Input*	12V DC, POE/high-POE/ePOE		
43	Min. Operating Temperature	-30deg C		
44	Max. Operating Temperature	59deg C		
45	Relative Humidity Non-Condensing (%) *	95		
46	Warranty*	2years		
47	Video Compression	Instastream, H.265, H.264+, H.264, H.264H, H.264B, MJPEG (Only supported by sub stream)		
48	Bit Rate	H.265: 12 kbps–6144 kbps, H.264: 32 kbps–6144 kbps		
49	Bit Rate Control	CBR/ VBR		
40	Storage	SFTP, NAS, Mirco SD card (Max. 512GB)		
41	Alarm Event	Motion detection, Video tampering, Tripwire, Intrusion, Audio detection, Voltage etection,SMD, Security exception, External alarm ,No SD card, SD card full, SD card error, Network disconnection, IP conflict, illegal access.		
42	Cyber Security	AES 256-bit Encryption, Configuration encryption, trusted execution, Digest, security logs,WSSE, account lockout, syslog, video encryption, IP/MAC filtering, HTTPS, trusted upgrade,trusted boot		
43	Browser	IE, Chrome, Firefox		
44	User/Host	6 (Total bandwidth: 36 M)		
45	Power Source	12 VDC/PoE (802.3af)		
46	Weatherproof Standard	IP67 & IK10 (optional)		
47	Operating Temperature	–40 °C to +60 °C (–40 °F to +140 °F)		
48	Operating Humidity	≤95%		
49	Casing	Metal		
50	Certification*	UL, FCC, CE, RoHs, BIS, STQC		

Camera Type: 2MP Fix Bullet Camera
Camera Specification:

Sr.No.	Parameter	Minimum Specification	Compliance (YES/NO)	Remarks.
1	Image Sensor	1/2.8" 2MP PS CMOS Image Sensor (0.9071 centimeters)		
2	Shutter Speed	Auto/Manual 1/3 s–1/100,000 s		
3	Effective Pixels	1920 (H) × 1080 (V)		
4	Minimum Illumination	0.005 lux@F1.6 (Color, 30 IRE), 0.0005 lux@F1.6 (B/W, 30 IRE), 0 lux (IR on)		
5	Max. Aperture	F1.6		
6	Lens Mount	M12		
7	Angle Adjustment	Pan: 0°–355°, Tilt: 0°–65°, Rotation: 0°–355°		
8	RAM/ROM	128 MB/128 MB		
9	Gain Control(AGC)	Auto/ Manual		
10	Noise Reduction	3D NR		
11	Privacy Mask	4 areas		
12	S/N Ratio	> 56 dB		
13	IR Number	1 IR LED, 1Warm Light		
14	IR	IR Range of 30 Mtr.		
15	Warm Light	Warm Light Range of 30 Mtr.		
16	Lens	3.6mm Lens (2.8mm Optional)		
17	Angle of View	3.6 mm: H: 87°, V: 44°, D: 105°; 2.8 mm: H: 103°, V: 55°, D: 123°		
18	Video Compression	H.265, H.264+, H.264, H.264H, H.264B, MJPEG		
19	Back Light Compensation	BLC/ HLC/ DWDR		
20	Day/Night	Auto(ICR)/Color/B/W		
21	Stream Capability	Support Dual stream		
22	OSD	Camera title, Date & Time		
23	Audio	Built-in Mic		
24	Audio Compression	G.711a, G.711Mu, PCM, G.726		
25	Image Rotation	0°/90°/180°/270°		
26	Bit Rate	H.265: 12 kbps–4096 kbps, H.264: 32 kbps–4096 kbps		
27	Bit Rate Control	VBR, CBR		
28	ONVIF	Profile S, Profile G, Profile T		
29	Ethernet	RJ-45 (10/100 Base-T)		
30	Protocol	SFTP, IPv6, IPv4, DNS,RTCP, NTP, RTP, HTTP, HTTPS, SNMP V1/ V2/ V3, TCP/IP, PPPoE, NFS, UDP, ICMP, SSL, DHCP, SMTP, RTSPS, ONVIF (Profile S, Profile G, Profile T), unicast, multicast		
31	Cyber Security	AES 256-bit Encryption, Configuration encryption, trusted execution, Digest, security logs, WSSE, account lockout, syslog, video encryption, IP/MAC filtering, HTTPS, trusted upgrade, trusted boot		
32	SDK and API	Support		
33	User/Host	6 (Total bandwidth: 24 M)		
34	Mirror Function	Support		
35	Audio	Built-in Mic		
36	Smart IR	Support		
37	Weatherproof Standard	IP67 & IK10		
38	Operating Temperature	–40 °C to +60 °C (–40 °F to +140 °F)		
39	Power Source	12 VDC/PoE (802.3af)		
40	Browser	IE: IE11, Chrome, Firefox		
41	Storage	SFTP, NAS, Mirco SD card (Max. 512GB)		
42	Operating Humidity	≤95% (RH), non-condensing		
43	Casing	Metal		
44	Certification	CE, FCC,RoHS,BIS, STQC		

SL NO	6 Ports Switch with 4 Gigabit PoE Ports & 2 Gigabit Uplink Ports	
1	Ports	2 x 1000Mbps RJ45 ports 4, 1000Mbps; RJ45 PoE ports; Max Surge Protection Common mode: 2KV Differential mode: 2KV 2 Gigabit SFP Port
2	PoE Standard	IEEE802.3/802.3u/802.3ab/802.3z/802.3x
3	Power Rating	30W Output of Single PoE Port 48w PoE power budget

SL NO	SITC of 10 Ports Switch with 8 Gigabit PoE Ports & 2 Gigabit Uplink Ports, 2 SFP Ports	
1	Ports	8x10/100/1000 POE+ ports Surge protection: Common mode/RJ45 port: 4KV Differential mode/RJ45 port: 2KV Common mode/Power board: 2K Differential mode/Power board: 2KV 2 Gigabit SFP Port
2	PoE Standard	PoE+ with standard 802.3af & 802.3at
3	Power Rating	96w PoE power budget Max. 30W Output of Single PoE Port

SL NO	SITC of 20 Ports Switch with 16 Gigabit PoE Ports & 2 Gigabit Uplink Ports + 2 SFP Ports	
1	Ports	2 x 1000Mbps RJ45 ports + 2 x 1000Mbps SFP ports 16, 1000Mbps; RJ45 PoE ports; Supports IEEE802.3/802.3u/802.3ab/802.3z/802.3x 40Gbps Full duplex Surge protection: Common mode/RJ45 port: 4KV Differential mode/RJ45 port: 2KV Common mode/Power board: 2K Differential mode/Power board: 2KV
2	PoE Standard	PoE+ with standard 802.3af & 802.3at
3	Power Rating	200w PoE power budget Max. 30W Output of Single PoE Port

Other Equipments			
S.NO	Parameters	Compliance	Remarks
1	8TB Surveillance Storage Hard Disk: Specification: Storage size of 8TB, 3 Years Warranty, Surveillance Internal Hard Drive HDD – 3.5 Inch SATA, 6Gb/s 256MB Cache for DVR NVR Security Camera System with Drive Health Management		
2	2U RACK: Specification: Wall Mount 350 W x 350 D x 140 H – Compact DVR Enclosure with Lock & Key, Front Glass Door (Tinted, Toughened) with Lock & Key, Top & Bottom with Cable Entry cutouts, Supplied with Earthing Provision & Rack Mounting Hardware Welded Side Walls.		
3	4U RACK: Specification: Front Glass Door (tinted, Toughened) with Lock & Key 2 pairs of 19" Mounting, Rails with U-Marking Welded Side Walls, Standard Accessories: 1U Cable Manager (1), Hardware Packet (1 Pkt) 3 Socket 5 Amp. Power Distribution Unit (1 No) Roof Mounted Fan Unit / 90 CFM /230V AC (1 No)		
4	6U RACK: Specification: Wall Mount 6U x 550 W x 500 D - Grey Color Front Glass Door (tinted, Toughened) with Lock & Key, 2 pairs of 19" Mounting Rails with U-Marking Welded Side Walls. Standard Accessories: 1U Cable Manager (1), Hardware Pkt of 20 (1 Pkt) 6 Socket 5 Amp. Power Distribution Unit (1 No) Roof Mounted Fan Unit / 90 CFM /230V AC (1 No)		
5	600VA UPS (Uninterrupted Power Supply): Specification: Capacity 600va/360w, Input voltage 230Vac, Frequency 50Hz, Battery 12v/7.5h X1, Waveform simulated Sine wave, Pushbutton switch with auto restart, 2 Years Board & Battery warranty onsite		
6	Cat 6 23Awg Cable: Specification: CAT6 UTP 23AWG Solid: 305M, 23 AWG Solid Bare Copper (4 pair), Operating Temperature Range: – 20°C to +75°C, Storage Temperature Range: – 0°C to +50°C, High Density Polyethylene, 2 Insulated conductors twisted together		
7	Optical Fiber cable 4 core: Specification: GOOD QUALITY HDPE, HIGH QUALITY GLASS MATERIAL, HIGH DATA SIGNAL PASSING CABLE, WITH OTDR REPORT		
8	Single Fiber SFP Module – Pair: Specification: 20KM 1.25G 1310 Single Mode, Dual data-rate of 1.25Gbps/1.063Gbps operation 1310nm FP laser and PIN photo detector for 20km transmission, Compliant with SFP MSA and SFF-8472 with single LC receptacle Digital Diagnostic Monitoring		
9	Installation of all material (including RJ45 Connector, Camera Mounting box, PTZ mounting kit, electrical point, tie, saddle etc.)		

Criteria for eligibility of OEM of CCTV component:

#	Criteria	Supporting Document
1	The OEM of Camera & NVR should have presence and registered office in India since last 10 years (under Company Act, 1956/ 2013). Presence through Distributor/ Dealer network/ Joint Venture/ Subsidiary/ consortium shall not be treated as OEM.	Certificate of incorporation
2	The OEM of Camera, Storage, NVR/ VMS Software and Network Switches should not be an entity having its major shareholding stake by any government or its entity or originated/founded by personnel from Defence origin.	Declaration of OEM on Letterhead
3	The OEM of component such as IP Camera, Storage, NVR/ VMS Software and Network Switches should not be blacklisted or banned or barred by any government agency like GeM or in any country. The OEM Should not be charged or prosecuted for any cheating or fraudulent case(s) in India for their respective product line.	Declaration of OEM on Letterhead
4	The OEM of CCTV Camera should be a fulltime member of ONVIF and quoted models should be listed on official website of ONVIF. The CCTV OEM should not be suspended/ blacklisted by ONVIF.	OEM declaration on Letterhead supported by valid certificates (valid as on technical bid opening date) / reference documents.
5	The OEM of CCTV component should be CMMI Level 5 or above certification.	
6	The OEM of CCTV component should have General Data Protection Regulation (GDPR) certification.	
7	The OEM of CCTV component should have ISO Certifications for Quality, Environment, Security management, Health & Safety Management system, etc. for manufacturing of all types of Cameras, NVR/ DVR and allied component. - ISO 9001:2015 - ISO 14001:2015 - ISO 27001:2013 - ISO 45001:2018 - ISO 27032:2012	The Bidder/s shall attach the copy of the OEM's ISO Certificate along with the bid.
8	All the CCTV Component such as Camera, VMS, NVR, DVR, etc should be from same OEM for seamless integration and ease of operation. All CCTV cameras offered in this tender should be UL, CE, FCC, RoHS and BIS certified.	Declaration of OEM on Letterhead along the copies of certificates.
9	The OEM should have average Annual turnover of INR 500 Crores during the last 3 Financial Year ending 31st March 2021.	Audited balance sheet form statutory auditor
10	The OEM of CCTV component should have its office and service/ support centre in Kolkata/West Bengal	Certificate of office establishment, statutory tax registration certificates such as Trade license, GST registration certificate, etc. to be provided.

11	The OEM of CCTV component should comply with "Make-in-India" policy and guidelines as laid by Government of India. The OEM of CCTV component should also comply with all subsequent guidelines and orders published by various departments of Government of India such as Department of Expenditure (Ministry of Finance), STQC certifayed etc.	Certificate of statutory authority (STQC can be accepted with supply if applied)
12	The OEM of CCTV component should have more than 500 employees on its payroll in India. Any OEM which is apart of a larger group company but meeting the 500 employee criterion in India is also eligible. This is to ensure that OEM has made investment in India and is serious about its sustainable business continuity in India by extending long term after sales and spare support.	Declaration of HR on Letterhead and certificate of investment from statutory auditor.
13	The camera OEM should be a genuine manufacturer and should have offical valid H.265 HEVC certificate and should be listed on HEVC website at the time of submitting bid. They should be paying the licenced fee for using the genuine HEVC compression legally. The same will be cheked on following official website. https://www. mpegla.com/programs/hevc/licensees/	Declaration of OEM on Letterhead