

Axis Network Video Exam

Axis Communications ANVE

Version Demo

Total Demo Questions: 42

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Topic Break Down

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Topic 1, Network video fundamentals	199
Topic 2, Network video design	101
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QUESTION NO: 1

In a network surveillance installation, the purpose of a router is to

- A. Forward the video stream between networks.
- B. Forward the video stream to the correct receiver within a network.
- C. Separate audio and video traffic to reduce audio latency.
- D. Separate the video stream from the camera control signaling.

ANSWER: A

Explanation:

Forward the video stream between networks is correct because a router connects separate IP networks and forwards packets from one network to another according to their destination IP addresses and routing information. In a network surveillance system, this permits video traffic generated by an Axis camera on one subnet or LAN to reach a video management system, client, recorder, or authorized remote user located on a different subnet, site network, or WAN connection. The router acts at the network layer and selects an appropriate next hop for packets that must leave the originating local network. This is important in larger surveillance deployments, where cameras, recording servers, monitoring clients, and remote-access services may be deliberately placed in separate network segments for scalability, traffic management, and security. Axis describes routers as devices that connect different networks and route data packets between them. Correct IP addressing, subnet masks, default gateways, and router configuration enable devices to communicate beyond their local subnet. For further background, see Axis's [Networking basics](#) and Cisco's overview of [what a router does](#).

QUESTION NO: 2

Session Initiation Protocol (SIP) is used to set up

- A. peer-to-remote call, peer-to-peer calls, SIP trunk calls.
- B. peer-to-peer calls, peer-to-remote calls, SIP dial a station.
- C. SIP service calls, SIP trunk calls, peer-to-peer calls.
- D. SIP trunk calls, SIP service calls, SIP remote calls.

ANSWER: A

Explanation:

Session Initiation Protocol (SIP) is used to establish, manage, and terminate real-time communication sessions, including voice and video calls. In an Axis network-video or audio installation, this includes direct peer-to-peer calls between compatible endpoints, peer-to-remote calls where an endpoint is reached remotely through the relevant SIP configuration, and SIP trunk calls that connect the deployment to a telephony or PBX environment. SIP supplies the signaling needed to locate the destination, negotiate the session parameters and media capabilities, and control the call lifecycle. The media stream itself is normally transported separately, commonly using RTP, after SIP has completed the call setup. This makes SIP suitable for integrating Axis intercoms, cameras with audio capabilities, and network audio products into both direct endpoint communication and broader enterprise telephony workflows. The protocol's role as an application-layer signaling protocol is defined in [RFC 3261](#). Axis also documents SIP configuration and communication capabilities as part of its Axis OS product functionality; see the [Axis OS documentation](#).

QUESTION NO: 3

statement best describes how an ACAP works?

- A. The analytic is run on the device

- B. The analytic is run on a cloud server
- C. The analytic is run on a local server
- D. The analytic is run on a remote server

ANSWER: A

Explanation:

The analytic is run on the device. ACAP (AXIS Camera Application Platform) is Axis Communications' application platform for installing compatible software directly on an Axis network device, such as a camera, intercom, or speaker. This makes it possible for an analytics application to use the device's own processor and operating environment to analyze video at the edge, close to where images are captured. Edge processing can reduce the need to transmit continuous video to another system solely for analysis, which can conserve bandwidth and support quicker event detection. The application can then generate events, metadata, alarms, or other results that are used by a video management system or integrated solution. The precise processing capacity depends on the specific device hardware and the application's requirements, so compatibility should always be verified before deployment. Axis describes ACAP as an open platform that enables developers to create applications that run on Axis devices, while its edge-analytics guidance explains the value of analyzing data directly in the camera or other edge device. See [Axis Camera Application Platform \(ACAP\)](#) and [Axis edge-based analytics](#).

QUESTION NO: 4

Which actions can help protect an Axis device from unauthorized network access? (Choose two)

- A. Use HTTPS for device management
- B. Disable unused services and protocols
- C. Enable anonymous viewer access
- D. Forward all device ports directly to the internet
- E. Use the same administrator password on every device

ANSWER: A B

Explanation:

Use HTTPS for device management is correct because HTTPS uses TLS to protect management traffic between the administrator and the device. This helps prevent credentials and configuration information from being exposed while they are transmitted across the network. The device certificate should also be managed so the client can verify the identity of the device.

Disable unused services and protocols is also correct. Reducing the number of enabled network services reduces the device's attack surface and limits opportunities for unauthorized access. Services should be enabled only when they are required by the intended solution and operational workflow.

These measures should be combined with unique credentials, current AXIS OS releases, restricted network access, and appropriate network segmentation. See the [Axis cybersecurity resources](#) and the [AXIS OS Hardening Guide](#).

QUESTION NO: 5

When selecting a camera for an exposed outdoor location, which product specifications should be considered? (Choose three)

- A. IP rating.
- B. Operating-temperature range.
- C. IK impact-resistance rating.

D. The number of available user accounts.

E. The default multicast address.

ANSWER: A B C

Explanation:

The IP rating should be considered because it indicates the enclosure's resistance to ingress of solids and water. The required rating depends on the exposure conditions at the installation location, including rain, dust, washdown, and mounting orientation.

The specified operating-temperature range must also cover the actual environmental conditions, including direct sunlight, wind chill, heat from nearby equipment, and heat buildup in an enclosure. Where vandalism or physical impact is a risk, the IK impact-resistance rating is also relevant. These environmental specifications must be verified for the complete installed solution, including housing, mounting accessory, and cable protection. See the [Axis network cameras](#) product information and the [Axis product catalog](#).

QUESTION NO: 6

How do PTZ cameras use lasers to improve focus?

A. The laser makes an invisible target the PTZ locks on to

B. The laser provides the target distance

C. The laser provides the target reflectance

D. The laser provides additional illumination for the scene

ANSWER: B

Explanation:

The laser provides the target distance. In PTZ cameras equipped with laser focus, the integrated laser range finder measures the distance from the camera to the object or area being viewed. The camera uses that distance data to move the lens to an appropriate focus position quickly, rather than relying only on image-based autofocus to search for the sharpest image. This is especially useful after a rapid pan, tilt, or zoom movement, when the camera needs to acquire focus promptly on a distant target. Distance information can also support dependable focus performance in scenes where conventional autofocus has limited visual detail to evaluate, such as low-contrast areas or scenes with difficult lighting. Axis describes laser focus as a feature that enables fast, precise focus by measuring the distance to the object. For example, the AXIS Q6315-LE PTZ Camera product documentation identifies laser focus among its capabilities, and Axis explains that its laser focus technology supports accurate focusing over long distances. See [AXIS Q6315-LE](#) and [AXIS Q6075-E](#).

QUESTION NO: 7

Who should be responsible for documenting a video surveillance installation?

A. The camera manufacturer

B. The customer's security manager

C. The customer's IT department

D. The integrator

ANSWER: D

Explanation:

The integrator should be responsible for documenting a video surveillance installation. As the party that designs, configures, installs, and commissions the solution, the integrator has the most complete and accurate view of the delivered system. Installation documentation should capture the as-built configuration: device locations and identifiers, network addressing and topology, camera settings, recording configuration, user and access arrangements, software and firmware versions, licenses, and relevant maintenance or handover information. This record enables the customer to operate the system effectively, makes future support and troubleshooting more efficient, and provides a reliable baseline for upgrades, expansions, or changes. Documentation is also an important part of professional project handover, because it confirms that the implemented solution can be understood and maintained after installation. Axis emphasizes planning, installation, configuration, and handover practices that support a system throughout its lifecycle; the installing partner is therefore the appropriate owner for preparing the technical as-built documentation and supplying it to the customer. See Axis's [system design resources](#) and its [AXIS Site Designer documentation and project-planning tool](#) for related design and documentation workflows.

QUESTION NO: 8

After an installer sets up a motion detection window they then zoom out the camera. How will this affect the camera's ability to detect motion if no settings are changed?

- A. More pixels are needed to change to trigger motion detection
- B. Less pixels are needed to change to trigger motion detection
- C. More movement needed to change to trigger motion detection
- D. Less movement needed to change to trigger motion detection

ANSWER: C

Explanation:

More movement needed to change to trigger motion detection is correct. AXIS Video Motion Detection evaluates changes in pixels within the configured detection area. When the camera zooms out, the same physical subject occupies fewer pixels in the image than it did at the original zoom level. With the motion-detection settings left unchanged, a subject must therefore move farther across the scene to produce enough changed pixels to meet the existing trigger threshold. This can make detection of small or distant subjects less responsive after the field of view is widened. For dependable operation, installers should validate motion detection again after changing focal length, zoom, scene composition, or camera position, then adjust the detection area and relevant motion settings as needed. Axis describes AXIS Video Motion Detection as pixel-based video analytics and notes the importance of configuring it for the specific scene and intended objects of interest. See the [AXIS Video Motion Detection product page](#) and the [AXIS Video Motion Detection documentation](#).

QUESTION NO: 9

When zooming in on an object with varifocal or zoom lens, lightsensitivity of the camera is

- A. increasing
- B. decreasing
- C. the same
- D. dependent on lens

ANSWER: B

Explanation:

decreasing is correct. When a varifocal or zoom lens is moved toward a longer focal length to enlarge a distant object, the lens commonly has a smaller effective maximum aperture. This is expressed as a higher f-number at the telephoto end of the zoom range. A higher f-number means that less light reaches the image sensor during the same exposure time.

Consequently, the camera has lower light sensitivity when zoomed in and may need to compensate with a longer exposure, increased gain, or supplemental illumination to maintain a usable image.

This behavior is especially relevant when specifying cameras for low-light scenes: the lens specification should be read across its focal-length range, rather than relying only on the widest-aperture value stated for the wide-angle position. Axis explains that the f-number describes the relationship between focal length and aperture diameter, and that a lower f-number permits more light to reach the sensor. Its imaging guidance also notes the importance of aperture and available light to image quality. See the [Axis optics technical guide](#) and [Axis image usability guide](#).

QUESTION NO: 10

Which applications are suitable for AXIS Object Analytics? (Choose two)

- A. Detecting a person crossing a virtual line
- B. Detecting a vehicle entering a defined area
- C. Measuring the temperature of a person
- D. Changing a PTZ camera's optical zoom automatically without an event rule
- E. Encrypting recorded video files

ANSWER: A B

Explanation:

Detecting a person crossing a virtual line is correct. AXIS Object Analytics can detect and classify objects in a configured scene and generate events when an object crosses a defined line. This can be used for monitoring entrances, restricted routes, perimeter boundaries, and similar areas.

Detecting a vehicle entering a defined area is also correct. A scenario can be configured to trigger when selected object types enter or remain within a defined area. This enables event-driven recording, notifications, and integration actions based on relevant activity rather than continuous operator observation.

Analytics performance depends on camera placement, object size, lighting, scene complexity, and careful configuration. The camera and installed AXIS OS version must support the selected analytic capability. See the [AXIS Object Analytics product page](#) and the [AXIS Object Analytics documentation](#).

QUESTION NO: 11

Which of the following can be used as triggers in an Axis device event rule? (Choose two)

- A. Video motion detection.
- B. A change of state on a digital input.
- C. Video stream resolution.
- D. A configured user role.
- E. A privacy mask.

ANSWER: A B

Explanation:

Video motion detection can be used as an event trigger. When motion is detected in the configured area and the configured conditions are met, an action rule can initiate a response such as recording video, sending a notification, or activating an output.

A digital input can also be used as a trigger. For example, a door contact, panic button, PIR sensor, or other external device can change the input state and cause the camera to perform a configured action. Video resolution and user-role configuration are device settings, not event triggers. See [AXIS OS documentation](#) for event and action-rule configuration.

QUESTION NO: 12

When installing a network camera with PoE, which best practices should be taken into consideration? (Choose two)

- A. The camera has the correct software version
- B. The camera is configured for continuous recording
- C. The correct PoE standards are being used
- D. The camera has multiple video streams in H.264
- E. The correct cabling standards are being used

ANSWER: C E

Explanation:

“The correct PoE standards are being used” and “The correct cabling standards are being used” are essential considerations for a reliable Power over Ethernet camera installation. The power sourcing equipment, such as a PoE switch or midspan, must provide an IEEE PoE class and power budget that meet or exceed the camera's requirements. This is especially important for cameras using power-intensive functions such as PTZ movement, built-in illumination, heaters, or other accessories. Axis specifies the required power method and maximum power consumption in each product's datasheet and installation guide; those requirements should be verified before deployment.

Network cabling must also comply with applicable Ethernet cabling requirements and be installed within supported length limits. Properly terminated, standards-compliant twisted-pair cable provides both the network connection and the power path, helping prevent voltage drop, intermittent connectivity, or insufficient power at the device. Axis recommends using PoE equipment compliant with IEEE 802.3af, 802.3at, or 802.3bt as applicable and ensuring the cable installation is suitable for the operating environment. Consult the camera-specific documentation for its exact power and cable requirements. See [Axis network cameras](#) and [Axis Support FAQ](#).

QUESTION NO: 13

Which are possible means to extend server storage for video? (Select two)

- A. UPS
- B. RAM
- C. RAID
- D. NAS
- E. SAN

ANSWER: D E

Explanation:

NAS and SAN are both network-based storage architectures that can extend the video-storage capacity available to a recording server. Network Attached Storage provides file-level storage over the IP network and can be used to add centrally accessible storage capacity without relying solely on disks installed in the server. A Storage Area Network provides block-level storage to servers over a dedicated storage network or fabric, allowing centrally managed storage resources to be presented to the recording server as storage volumes. Both approaches support scaling storage independently from the server chassis, which is valuable when video retention requirements increase. Axis describes NAS and SAN as storage-system alternatives in its guidance on designing video-surveillance storage, alongside direct-attached storage approaches.

The appropriate design must still provide adequate network throughput, reliable disk configuration, and capacity for the selected retention period and recording workload. See [Axis Storage considerations for network video surveillance](#) and [AXIS Camera Station Pro documentation](#).

QUESTION NO: 14

With Axis Coverage Shapes, the designer can

- A. See the effect of furniture or other objects blocking field of view.
- B. View how varying lighting conditions affect the image.
- C. Create a 3D view of the scene the camera will capture.
- D. Determine at what distance a person can be identified.

ANSWER: D

Explanation:

Axis Coverage Shapes are used in AXIS Site Designer to visualize camera coverage and plan a surveillance installation against operational requirements. A key planning outcome is establishing the distance at which a target, such as a person, will provide sufficient pixel density for a defined level of detail. This supports the DORI methodology: detection, observation, recognition, and identification. For identification, the required pixel density is high enough to distinguish an individual reliably, so the coverage shape helps the designer see where that requirement is met within the planned scene. The result is based on relevant camera and installation parameters, including the selected device, lens or field of view, mounting position, and target area. This lets a designer select and position cameras according to a measurable identification requirement rather than estimating coverage solely from a camera's advertised resolution or viewing angle. Axis describes AXIS Site Designer as a design tool for planning systems and choosing suitable Axis products, while its DORI guidance explains how pixel density and distance relate to usable video detail. See [AXIS Site Designer](#) and [Axis DORI guidance](#).

QUESTION NO: 15

Which actions are recommended to help harden an Axis device? (Choose three)

- A. Use unique, strong passwords.
- B. Disable unused network services.
- C. Keep AXIS OS updated.
- D. Use HTTP instead of HTTPS for administration.
- E. Forward device management ports directly from the internet.

ANSWER: A B C

Explanation:

Using unique, strong passwords helps protect device accounts from unauthorized access and reduces the risk created by reused credentials. Unused network services should also be disabled because limiting exposed services reduces the device attack surface.

Keeping AXIS OS updated is another important security practice. Firmware updates can provide security corrections, stability improvements, and product enhancements. Device hardening should be combined with network segmentation, controlled administrator access, and regular review of the device configuration. See the [Axis Cybersecurity](#) page and the [AXIS OS Hardening Guide](#).

QUESTION NO: 16

What is needed to identify a person's face in a scene?

- A. A pixel density of at least 63 px/m (20 px/ft)
- B. A pixel density of at least 250 px/m (80 px/ft)
- C. A pixel density of at least 25 px/m (8 px/ft)
- D. A pixel density of at least 125 px/m (40 px/ft)

ANSWER: B

Explanation:

A pixel density of at least 250 px/m (80 px/ft) is needed to identify a person's face reliably in the target area. Pixel density expresses how many image pixels cover one meter (or foot) of a real-world scene, making it a practical design measure for determining whether an object or face will contain enough detail for the intended surveillance purpose. Axis uses 250 px/m as its recommendation for identification, meaning that the captured facial detail can support identification of a person beyond reasonable doubt when the person is positioned within the defined target area. This requirement must be assessed at the actual distance and location where identification is required; a camera's overall resolution alone does not ensure sufficient facial detail across an entire scene. Camera placement, lens focal length, viewing angle, and the dimensions of the monitored area all affect the resulting pixel density. Designers can use Axis Site Designer and Axis pixel-density guidance to select a camera and lens combination that delivers at least this value at the required identification point. See [Axis Communications: Pixel density](#) and [Axis Site Designer](#).

QUESTION NO: 17

What is the most effective and time saving way to adjust the focus on the AXIS M3204 camera while onsite?

- A. Remote zoom and focus feature
- B. Adjust back focus
- C. AXIS T8414 Installation Display
- D. AXIS Camera Management

ANSWER: C

Explanation:

AXIS T8414 Installation Display is the most effective and time-saving onsite tool for adjusting focus on an AXIS M3204. The handheld installation display is designed specifically for field installation and commissioning of Axis network cameras. It lets the installer view the camera's live video directly at the mounting location while making the necessary physical lens-focus adjustment, avoiding repeated trips between the camera and a laptop, control room, or network switch. The display can also provide Power over Ethernet to a connected camera, which is particularly useful before the permanent network and power connections are ready. This makes it practical to verify framing, sharpness, and image quality immediately during installation. For a camera with a manually adjustable varifocal lens such as the AXIS M3204, direct local viewing with an installation display supports a quicker and more reliable focus workflow than using management software intended primarily for configuration and administration. Axis describes its installation displays as portable tools for installing and configuring Axis network cameras in the field. See the [AXIS T8414 Installation Display product page](#) and the [AXIS M3204 user manual](#).

QUESTION NO: 18

Which statements about Quality of Service (QoS) in a network-video installation are true? (Choose two)

- A. QoS can prioritize latency-sensitive traffic
- B. QoS is most useful when network resources are congested
- C. QoS increases the physical bandwidth of an Ethernet link

- D. QoS encrypts video streams between cameras and clients
- E. QoS removes the need to estimate bandwidth requirements

ANSWER: A B

Explanation:

QoS can prioritize latency-sensitive traffic is correct. Network equipment can classify traffic and apply forwarding priorities so that important traffic, such as live video, audio, or camera control data, receives appropriate treatment when links become congested. This can help maintain operational responsiveness.

QoS is most useful when network resources are congested is also correct. QoS does not create additional bandwidth. Instead, it determines how available bandwidth and forwarding resources are used when competing traffic exceeds the capacity of a network link or device. Capacity planning remains necessary to ensure that the network has sufficient bandwidth for normal and peak video traffic.

QoS policies must be configured consistently across the relevant switches, routers, and other network infrastructure. See Axis guidance on [network video fundamentals](#) and the [technical guide to network video](#).

QUESTION NO: 19

While setting up an AXIS Q7404 Video Encoder for control of an analog PTZ using Pelco D protocol, you run into a problem. After uploading of the proper Pelco drivers into the AXIS Q7404 Video Encoder you find that channel 1 is controlling the wrong analog PTZ. Which option below would you adjust to fix this problem so you can avoid changing physical cables?

- A. IP address
- B. Device ID
- C. Baud rate
- D. Device type

ANSWER: B

Explanation:

Device ID is the setting that identifies which individual PTZ receiver or camera on the Pelco D serial control bus should respond to commands issued for a video channel. Pelco D uses an address, commonly called the camera address or device ID, in every PTZ command. The AXIS Q7404 uses the configured ID to direct pan, tilt, zoom, preset, and auxiliary commands to the intended analog PTZ unit. If channel 1 sends commands to the wrong PTZ, changing the configured device ID for that channel so that it matches the address programmed in the desired PTZ receiver corrects the logical association without moving any video or serial wiring. This is especially useful where multiple analog PTZs share the same RS-485 control connection, because each unit must have a unique address. The encoder's PTZ configuration supports selecting a driver and configuring the communication parameters needed for the connected PTZ device; the receiver address is the key setting for selecting the correct unit. See the [AXIS Q7404 documentation](#) and Axis's [VAPIX library](#) for PTZ and device-configuration information.

QUESTION NO: 20

The purpose of a DNS server is to

- A. Allocate IP addresses to devices within a network.
- B. Allocate MAC addresses to devices within a network.
- C. Translate host names such as www.axis.com to IP addresses.
- D. Translate host names such as www.axis.com to MAC addresses.

ANSWER: C

Explanation:

Translate host names such as www.axis.com to IP addresses. DNS, or the Domain Name System, is the naming service that enables people and networked applications to use memorable host names rather than having to know numerical IP addresses. When a user enters a name such as www.axis.com, a DNS resolver queries DNS records to obtain the associated IP address, allowing the client to establish communication with the intended host. This name-to-address resolution is fundamental to accessing web services, network cameras, NTP servers, mail systems, and other IP-based resources by name. In an Axis network-video environment, correct DNS configuration can also be important when devices must reach services identified by fully qualified domain names, including remote management, time synchronization, or certificate-related services. DNS records may provide IPv4 addresses through A records and IPv6 addresses through AAAA records. The essential purpose remains resolving a host name to its corresponding IP address so that IP routing and application connections can take place. See the [IETF Domain Names—Concepts and Facilities \(RFC 1034\)](#) and Axis guidance on [network settings](#).

QUESTION NO: 21

Which of the following are common ways to protect video while using a wireless network? (Choose two)

- A. VPN
- B. WPA2
- C. IEEE 802.1x
- D. IEEE802.11N
- E. HTTPS

ANSWER: B E

Explanation:

WPA2 and HTTPS provide complementary protection for video transmitted in a wireless deployment. WPA2 protects the wireless LAN itself by requiring authenticated association to the Wi-Fi network and encrypting traffic sent over the radio link. This prevents nearby unauthorized parties from simply joining the WLAN or reading wireless frames exchanged between the camera and access point. WPA2 should be configured with strong credentials or enterprise authentication, and installations should use current, securely configured wireless equipment.

HTTPS protects communication at the application layer using TLS. When HTTPS is enabled on an Axis device and clients connect using HTTPS, the management session and video requested through the device's web interface or supported HTTPS-based connections are encrypted in transit. TLS also enables the client to validate the device certificate, helping ensure that the connection is made to the intended device. Using wireless-link encryption together with HTTPS provides defense in depth: the WLAN is protected while traffic remains protected as it is accessed or managed. Axis provides security guidance and device-management information at [Axis Cybersecurity](#) and HTTPS/TLS is defined by the IETF in [RFC 9110](#).

QUESTION NO: 22

Thermal cameras use a different lens compared to visual cameras, why?

- A. The heat from the thermal camera is too much for a standard lens
- B. Thermal radiation does not pass through a regular glass lens
- C. Standard lenses do not have the clarity required to work effectively
- D. Polarized lenses are required to cut out the glare on the sensor

ANSWER: B

Explanation:

Thermal radiation does not pass through a regular glass lens. Thermal cameras form images from the long-wave infrared energy emitted by objects rather than from visible light. Ordinary optical glass is designed to transmit visible wavelengths, but it is opaque to the long-wave infrared wavelengths typically used by thermal imaging sensors. Consequently, a conventional visual-camera lens would prevent the required infrared energy from reaching the detector and would not produce a useful thermal image.

Thermal cameras therefore use optics made from materials that transmit infrared radiation, most commonly germanium. Germanium has suitable transmission properties in the thermal infrared band and can be manufactured into precision lens elements, allowing the sensor to detect variations in emitted heat energy and render them as an image. This optical-material difference is a fundamental distinction between thermal and visual cameras, rather than a matter of lens clarity, camera heat, or glare reduction. Axis explains that thermal cameras use a lens made of a material such as germanium because standard glass does not transmit thermal radiation. See [Axis Communications: Thermal cameras](#) and [Axis Communications: Thermal cameras product overview](#).

QUESTION NO: 23

AXIS Site Designer has which feature?

- A. Firmware recommendations
- B. Bandwidth and storage estimation
- C. BIM data summary
- D. Site maintenance planner

ANSWER: B**Explanation:**

Bandwidth and storage estimation is a core AXIS Site Designer feature. The tool is intended to support the planning and design of a video-surveillance solution before deployment. After devices and relevant scene, recording, and retention settings have been selected, it can calculate estimated bandwidth consumption and storage requirements. These estimates help a designer select appropriately sized network infrastructure and recording storage, while taking into account factors that influence video data volume, such as resolution, frame rate, compression settings, scene complexity, and the intended retention period.

This capability is particularly useful because storage and network capacity must be considered as part of the overall system design, rather than only after cameras have been installed. AXIS Site Designer also uses the project design to create supporting system documentation and a bill of materials, making its estimation functionality part of a structured planning workflow. Axis describes AXIS Site Designer as a tool for designing, planning, and estimating surveillance solutions, including bandwidth and storage needs. See the [AXIS Site Designer product page](#) and the [AXIS Site Designer online help](#).

QUESTION NO: 24

When designing a network video system, which are the benefits of configuring VLANs? (Select two)

- A. It increases the network bandwidth
- B. It keeps the network traffic separated from other networks
- C. In some cases, it lowers the bandwidth consumption
- D. It helps avoid network congestion
- E. Interconnectivity between networks is enabled

ANSWER: B D

Explanation:

It keeps the network traffic separated from other networks is correct because a VLAN creates a logical Layer 2 boundary for the video-surveillance environment. Cameras, video-management servers, and related devices can be placed in a dedicated segment, separating their traffic from business users and other network services. This segmentation supports a more orderly network design and can assist with applying security and traffic-handling policies appropriate to the video system.

It helps avoid network congestion is also correct. Video streams can consume substantial and continuous bandwidth, particularly where many cameras transmit high-resolution video. VLAN segmentation limits the scope of broadcast traffic and provides administrators with a clear traffic domain for the surveillance system. Used together with suitable switching capacity, QoS, multicast configuration where applicable, and bandwidth planning, this helps maintain predictable network performance and reduces the risk that unrelated traffic affects video delivery.

Axis recommends designing the network infrastructure around the video system's bandwidth, scalability, security, and traffic-management requirements. VLANs are a useful logical-segmentation mechanism within that overall design. See Axis guidance on [system design](#) and the [Axis Support site](#) for product-specific network configuration documentation.

QUESTION NO: 25

In which cases would a people counting analytic be used with an Axis camera (Choose three)?

- A. Fire protection in subways
- B. Statistics for retail stores
- C. Early warning system for flooding
- D. Enhanced service levels for public transportation
- E. Crowd detection for marketing purpose

ANSWER: B D E

Explanation:

People-counting analytics convert video into operational data about visitor volumes, movement patterns, and occupancy. **Statistics for retail stores** is a core use case: counted entries and exits help retailers measure footfall, assess peak periods, evaluate store layout, and compare traffic with sales or staffing levels. Axis identifies retail analytics as a way to understand customer behavior and optimize operations.

Enhanced service levels for public transportation is also an appropriate use. Passenger counts at stations, platforms, or onboard transit can reveal demand patterns and crowding, enabling operators to allocate staff, adjust capacity, and improve the passenger experience. Accurate, privacy-conscious counting supports operational decisions without requiring identification of individuals.

Crowd detection for marketing purpose is valid because aggregate crowd and occupancy information can show where and when groups gather. This helps organizations assess engagement with promotions, events, displays, or particular areas, then improve placement and timing of marketing activity. Axis people-counting and occupancy-oriented analytics are designed to provide this type of actionable statistical insight. See [AXIS People Counter](#) and Axis' overview of [retail solutions](#).

QUESTION NO: 26

In a network surveillance installation, the purpose of a router is to

- A. Forward the video stream between networks.
- B.
- B. Forward the video stream to the correct receiver within a network.
- C. Separate audio and video traffic to reduce audio latency.

D. Separate the video stream from the camera control signaling.

ANSWER: A

Explanation:

Forward the video stream between networks is correct because a router connects separate IP networks and uses IP addressing and routing information to send traffic from one network segment or subnet to another. In a surveillance deployment, this enables a camera located on one IP network to communicate with a video management system, client, recording server, or other authorized endpoint located on a different network. Although the application traffic may be a live video stream, audio, control data, or management traffic, the router's underlying role is to forward the relevant IP packets toward their destination across network boundaries. Routers can also apply network policies such as access-control rules, network address translation, and quality-of-service handling, depending on the installation design. Axis describes network video as using standard IP-network infrastructure and notes that devices communicate using network protocols and addressing. A properly configured router therefore provides the path between distinct networks while preserving normal IP communication for the surveillance system. See the [Axis Technical Guide to Network Video](#) and the [IETF Requirements for IP Version 4 Routers](#).

QUESTION NO: 27 - (SIMULATION)

Match each function to the correct video surveillance system component. Drag each gray box from the left column to the matching blue box in the right column.

ANSWER: See the explanation for the answer

Explanation:

The simulation text does not include the gray-box function labels or the blue-box component labels, so the required matches cannot be determined reliably.

Please provide the simulation screenshot or the complete lists from both columns. In general, the usual video-surveillance component functions are:

Network camera: captures the scene and produces/streams video.

Network switch/PoE switch: connects devices to the network and may supply Power over Ethernet.

Video management system (VMS)/server: manages cameras, users, recording rules, alarms, and video distribution.

Storage/NAS/server disk: retains recorded video.

Client/workstation: displays live and recorded video for the operator.

QUESTION NO: 28

Which are focus technologies offered by Axis cameras? (Select two)

- A. Laser focus
- B. Action focus
- C. Focus pinpoint
- D. Focus recall
- E. Macro focus

ANSWER: C D

Explanation:

Focus pinpoint and **Focus recall** are Axis camera focus technologies. Focus pinpoint is designed to make accurate focusing easier during installation and adjustment. It provides a clear way to pinpoint the area that must be sharp, helping the installer optimize focus for the specific scene detail that matters, such as a doorway, license plate area, or other defined

region of interest. This supports dependable image detail without relying solely on a broad, automatically selected scene area.

Focus recall lets the camera store focus settings for predefined positions and rapidly restore the appropriate setting when the view returns to one of those positions. This is particularly useful with PTZ and other movable-camera use cases, where a scene may repeatedly switch between areas at substantially different distances. Recalling the known focus setting reduces the time required to regain a sharp image after movement and supports consistent operational results. Axis lists focus recall among camera capabilities on applicable products, and its product documentation describes the camera-specific imaging and focus functions available. See the [AXIS P1468-LE product page](#) and the [AXIS P1375 product page](#).

QUESTION NO: 29

Keeping firmware up to date helps a device to

- A. maintain its IP-rating.
- B. stay as cybersecure as possible.
- C. remain in focus constantly.
- D. stay compatible with the VMS.

ANSWER: B D

Explanation:

Keeping firmware up to date helps a device **stay as cybersecure as possible** because firmware releases can correct identified vulnerabilities, resolve security defects, and introduce security improvements. Applying supported firmware is an important part of the device lifecycle: it ensures that protections added by the manufacturer are present on the camera or other network-video device. Axis advises customers to keep devices updated and provides security advisories and supported firmware releases to help manage known cybersecurity issues.

Firmware maintenance also helps a device **stay compatible with the VMS**. Network-video management systems rely on supported device firmware and APIs to use video, audio, events, analytics, device configuration, and other functions reliably. Current firmware can include updated integrations, fixes, and feature support needed for interoperability with newer VMS releases. Before a broad deployment, firmware should be validated in the organization's environment and installed according to established change-management practices. Axis provides firmware downloads and release notes through its support resources, while its security page describes the company's vulnerability-management and update processes. See [Axis firmware](#) and [Axis cybersecurity](#).

QUESTION NO: 30

To make use of IEEE 802.1X when connecting a camera to the network, you need(Choose two)

- A. An Ethernet switch with support for IEEE 802.1X.
- B. A router.
- C. A RADIUS server.
- D. Category 6 or Category 5e Ethernet cabling.
- E. A server with a Gigabit Ethernet network card.

ANSWER: A C

Explanation:

IEEE 802.1X provides port-based network access control, so a camera must be authenticated before the switch grants it normal access to the network. An Ethernet switch with support for IEEE 802.1X is required because it performs the authenticator role: it controls the physical network port, exchanges Extensible Authentication Protocol messages with the

camera, and applies the access decision to that port. The camera acts as the supplicant and must be configured with the applicable authentication method and credentials or certificate.

A RADIUS server is also required in the usual enterprise 802.1X deployment because it performs the authentication-server role. The switch forwards the camera's authentication exchange to RADIUS, and RADIUS validates the supplied identity or certificate and returns an accept or reject decision. This separation enables centrally managed authentication policies, credentials, and certificate trust. Axis devices support IEEE 802.1X configuration as part of Axis OS network-security capabilities; see the [Axis OS documentation](#). The underlying RADIUS authentication-server model is defined in [RFC 2865](#).

QUESTION NO: 31

Using bidirectional predictive interframe in H.264 will

- A. be independently decoded without referencing other frames.
- B. require more bits than if only I-frames are used.
- C. create dependency just to earlier P- and I-frames.
- D. increase the latency in the system.

ANSWER: D

Explanation:

Using bidirectional predictive interframe in H.264 will increase the latency in the system. A bidirectionally predicted frame, commonly called a B-frame, is encoded by referring to picture data from both an earlier reference frame and a later reference frame in display order. Consequently, the encoder must first receive and process the later reference picture before it can completely encode the B-frame. The decoder also requires frame reordering and buffering so that it has the required reference pictures available before presenting the B-frame in its intended display sequence. This look-ahead and buffering introduce delay relative to encoding structures that use only intra-coded and forward-predicted pictures. In practical network-video deployments, this matters where low end-to-end latency is important, such as live monitoring, operator control, or rapidly triggered events. B-frames can improve compression efficiency because they make use of temporal information on both sides of the frame, but the resulting encoding and display-order delay is an inherent trade-off. Axis describes H.264 as a compression standard using different frame types and emphasizes that compression settings affect operational characteristics of a video stream; see [Axis: H.264 video compression](#) and [Axis: Video compression](#).

QUESTION NO: 32

Which applications are typically used with PTZ cameras? (Select three)

- A. Autotracking
- B. Occupancy estimation
- C. Active gatekeeper
- D. People counting
- E. Queue monitoring
- F. Guard tour

ANSWER: A C F

Explanation:

Autotracking, active gatekeeper, and guard tour are established PTZ-camera applications because they use the camera's pan, tilt, zoom, and preset-position capabilities to dynamically cover an area. Autotracking automatically follows a detected moving object, allowing a PTZ camera to maintain useful framing as the object moves through the scene. Active gatekeeper combines event detection with PTZ control: when activity is detected in a defined area, the camera moves from a wider

overview position to a preset position for closer observation. A guard tour directs the camera through a sequence of preset positions, either continuously or according to a schedule, enabling planned coverage of several viewpoints with one device. These functions are commonly configured through the PTZ controls and event-management features in compatible Axis devices. Axis describes autotracking as an application for automatically tracking moving objects, while its PTZ documentation describes guard tours and preset-position control as core PTZ functionality. See [Axis Object Analytics](#) and [Axis OS documentation](#).

QUESTION NO: 33

Which rating is important when vandalism is a risk?

- A. IK
- B. IP
- C. UL
- D. ONVIF

ANSWER: A

Explanation:

IK is the relevant rating when vandalism or deliberate physical damage is a concern. The IK classification, defined by the IEC 62262 standard, indicates the degree of protection that an enclosure provides against external mechanical impacts. In practical terms, it helps identify whether a camera housing, dome, or other device enclosure can withstand blows or attempted tampering in exposed locations such as public transport, schools, car parks, building entrances, and other high-risk areas. Higher IK numbers represent greater resistance to impact; for example, IK10 is commonly specified for vandal-resistant surveillance equipment and represents protection against a 20-joule impact. When designing an Axis video-surveillance installation, selecting equipment with an appropriate IK rating helps maintain camera availability and evidential video coverage after physical attacks. Axis includes IK classifications in relevant product specifications, allowing installers and designers to match the device's mechanical robustness to the risk level at the site. For further details, see Axis guidance on [IK ratings](#) and the IEC overview of [IEC 62262](#).

QUESTION NO: 34

Which product can typically provide the geographical position of an individual or a vehicle?

- A. A radar
- B. A positioning camera
- C. A thermal camera
- D. A modular camera

ANSWER: A

Explanation:

A radar is the appropriate product because it actively detects moving objects and continuously calculates their location within its monitored area. Axis security radars can detect, track, and classify people and vehicles, supplying position and movement data that can be used by a video-management system or mapped site layout. This makes radar especially useful for wide outdoor areas where knowing where an object is, how it is moving, and whether it enters a defined zone is important. The reported position is normally expressed relative to the radar installation and can be associated with a geographical/site map when the system has been configured with the relevant location information; it should not be interpreted as a GPS receiver carried by the person or vehicle. Radar metadata also supports automated tracking workflows, allowing connected cameras or management software to react to the tracked object's position. Axis describes its security radar products as devices designed to detect, classify, and track people and vehicles, including their position and speed. See the [AXIS D2110-VE Security Radar product page](#) and Axis's [radar product portfolio](#).

QUESTION NO: 35

Color temperature is measured in

- A. Celsius.
- B. Lumen.
- C. Lux.
- D. Kelvin.

ANSWER: D

Explanation:

Color temperature is measured in Kelvin (K). It expresses the apparent warmth or coolness of white light by relating its color appearance to that of an ideal black-body radiator at a given temperature. Lower Kelvin values produce warmer-looking light with a yellow, amber, or reddish appearance, while higher Kelvin values produce cooler-looking light with a whiter or bluer appearance. Typical values include approximately 2,700 K for warm residential lighting, around 4,000 K for neutral white lighting, and roughly 5,000–6,500 K for daylight conditions. In network video, color temperature is important because a camera's white-balance processing uses the illumination's color characteristics to render scene colors naturally and consistently. Selecting an appropriate white-balance setting, or allowing automatic white balance to adapt to the scene, helps an Axis camera compensate for different light sources and maintain reliable color reproduction. Kelvin is specifically a thermodynamic temperature unit used for this color-description scale. More information about color temperature is available from the [National Institute of Standards and Technology](#) and the [Axis Communications image-quality resources](#).

QUESTION NO: 36

Which certified product line is recommended for hazardous areas?

- A. F-line products
- B. M-line products
- C. XF/XP products
- D. P-line products

ANSWER: C

Explanation:

XF/XP products are the appropriate certified product line for hazardous-area installations. In this context, hazardous areas are locations where an explosive atmosphere could occur because of flammable gas, vapor, mist, or combustible dust. Equipment used there must be designed and certified so that it does not become an ignition source during normal operation or under defined fault conditions. Axis explosion-protected solutions are intended for demanding industrial environments such as oil and gas facilities, chemical processing sites, mining operations, and similar locations where these risks must be managed.

The XF/XP designation identifies products intended for these specialized deployments, rather than standard surveillance-camera product families. Selection must still be matched to the site's applicable area classification and local installation requirements, including the relevant certification scheme, such as ATEX, IECEx, or North American hazardous-location requirements. Axis provides explosion-protected cameras and related information for deployments in potentially explosive environments at [Axis explosion-protected cameras](#). For broader guidance on designing video surveillance solutions for hazardous areas, see [Axis technical guide to explosion-protected cameras](#).

QUESTION NO: 37

When connecting external equipment to a camera's I/O connector, which actions should be taken? (Choose two)

- A. Verify the electrical ratings of the I/O port and external device.
- B. Use an external relay when the load exceeds the I/O rating.
- C. Connect any external load directly to the camera output.
- D. Use the camera's IP address as the I/O wiring reference.
- E. Increase the camera frame rate before connecting the equipment.

ANSWER: A B

Explanation:

The installer should verify the electrical characteristics of the camera I/O port and the connected equipment. Input and output voltage, current, relay rating, and wiring requirements vary between camera models and must not be exceeded.

If an external load requires more current or voltage than the camera output or relay supports, an external relay or suitable interface should be used. This allows the camera I/O port to control the external device without placing an excessive load on the camera. The model-specific installation guide provides the applicable I/O ratings and connection diagrams. See [AXIS OS documentation](#) and the [Axis product catalog](#).

QUESTION NO: 38

Which of the following are outdoor rated products? (Choose two)

- A. AXIS M3114-R
- B. AXIS P3304-VR
- C. AXIS P1344-E
- D. AXIS P3344-VE
- E. AXIS M1031-W

ANSWER: C D

Explanation:

AXIS P1344-E and AXIS P3344-VE are the outdoor-rated products. The “-E” designation on AXIS P1344-E identifies the outdoor, environmental version of this fixed camera. It is supplied with an outdoor housing designed to protect the camera from environmental exposure and support reliable operation in outdoor surveillance installations. Axis specifies environmental protection features for the model, making it appropriate for locations such as building exteriors, entrances, perimeter areas, and other exposed mounting positions.

AXIS P3344-VE is also specifically designed for exposed installations. Its “-VE” designation identifies a vandal-resistant, environmental dome variant. This combines resistance to physical impact with weather protection, so the camera can be deployed outdoors where it may be subject to rain, dust, temperature variation, and attempted tampering. Outdoor suitability is determined by the complete camera enclosure and its environmental ratings, rather than merely by a camera’s compact form factor or vandal-resistance characteristics. Axis product documentation for the [AXIS P1344-E](#) and [AXIS P3344-VE](#) identifies these models as outdoor-capable environmental camera variants.

QUESTION NO: 39

Which statements apply to audio in an IP-based video system? (Select two)

- A. Some Axis video encoders allow the use of audio with analog cameras
- B. Audio travels over the IP network through separate shielded cables

- C. Audio and video are transmitted to the viewer over the same IP network
- D. The quality of an audio stream improves with a higher compression rate
- E. Simplex mode allows two-way audio but only in one direction at a time

ANSWER: A C

Explanation:

Some Axis video encoders allow the use of audio with analog cameras because an encoder converts analog camera video into network video and, on models equipped with audio input/output, can also digitize and transport associated audio. This makes it possible to retain analog cameras while adding IP-based audio functionality, such as listening to an area or connecting speakers and microphones where supported by the encoder and system design. For example, Axis video-encoder product specifications identify supported audio interfaces and streaming capabilities; see [AXIS M7104 Video Encoder](#).

Audio and video are transmitted to the viewer over the same IP network because both are digital network streams. A camera or encoder can encode audio and video and send those streams across the existing Ethernet/IP infrastructure to a video-management system, client, or other authorized recipient. The streams may be handled as distinct media streams and can have different codecs, bit rates, and synchronization requirements, but they use the same IP network infrastructure rather than requiring dedicated shielded audio cabling for network transport. Axis describes audio as an integrated capability of network video systems, including live and recorded audio applications, in its [audio in network video overview](#).

QUESTION NO: 40

A Privacy mask added to Live View (Choose two)

- A. Hides parts of the scene.
- B. Restricts access to the camera.
- C. Can be removed from recorded video.
- D. Lowers the bandwidth usage.
- E. Can be made into any shape.

ANSWER: A D

Explanation:

“Hides parts of the scene.” is correct because an Axis privacy mask overlays a defined region of the camera image so that activity or identifying details in that area are not visible. This supports privacy protection when cameras must cover areas containing neighboring property, public spaces, windows, or other sensitive content. The mask is applied by the camera before the video is delivered for viewing or recording, helping ensure the protected image area remains obscured in the video stream.

“Lowers the bandwidth usage.” is also correct. A masked region is rendered as a uniform, unchanging area rather than detailed, changing video content. Video compression is more efficient when less scene detail and motion must be encoded, so masking an area can reduce the bitrate required for the stream. The exact reduction depends on the size of the masked area, the amount of activity it would otherwise contain, the codec, resolution, and configured compression settings. Axis describes privacy masking as a camera-side privacy capability in its Axis OS documentation and provides broader guidance on using video surveillance while protecting personal privacy. See [Axis OS documentation](#) and [Axis video privacy guidance](#).

QUESTION NO: 41

Increase of bandwidth and storage can be a result of (Choose two)

- A. Changing from Motion JPEG to H.264.

- B. Arctic Temperature Control.
- C. High noise level.
- D. The use of High PoE.
- E. Image resolution.

ANSWER: C E

Explanation:

High noise level can increase bandwidth and storage requirements because video compression is most efficient when consecutive frames contain predictable, stable image data. Noise introduces random pixel variations, particularly in low-light scenes, which makes each frame harder to compress efficiently. The camera therefore needs a higher bit rate to preserve the configured image quality, and the resulting larger video stream consumes more recording storage over the same retention period. Axis describes how scene complexity and low-light conditions affect bit rate, and how compression technologies can reduce the impact of these factors.

Image resolution also directly affects bandwidth and storage. A higher resolution contains more pixels in every frame, so there is more image information to encode, transmit, and retain. At the same frame rate, compression configuration, and retention time, increasing resolution will normally increase the average bit rate and consequently the amount of storage required. Capacity planning should therefore account for resolution together with frame rate, scene activity, compression settings, and recording duration. Axis provides a planning tool and guidance for estimating these requirements in its [AXIS Site Designer](#) and explains video-compression considerations in the [Axis technical guide to video compression](#).

QUESTION NO: 42

Which sensor has a 1080p resolution?

- A. An HD sensor
- B. A full HD sensor
- C. An 8K sensor
- D. A 4K sensor

ANSWER: B

Explanation:

A full HD sensor has a 1080p resolution. In network-video terminology, 1080p denotes a progressive image with 1,080 vertical pixels and a standard Full HD image size of 1,920 × 1,080 pixels. This provides approximately 2 megapixels of image detail per frame, making Full HD a widely used resolution class for surveillance cameras where a balance of scene coverage, detail, bandwidth, and storage is required. The “p” in 1080p means progressive scan: each frame contains the complete set of image lines, rather than alternating lines as in interlaced video. Axis describes HDTV 1080 as a 1,920 × 1,080-pixel resolution and identifies it as a key HDTV surveillance format. Resolution alone does not define all image-quality outcomes, since lens choice, sensor size, illumination, compression, and scene conditions also matter, but the resolution label itself is unambiguous: Full HD corresponds to 1080p. See Axis’ overview of [network-video resolution](#) and its [HD and megapixel resolutions](#) guide for the resolution definitions used in video surveillance.