

## N10-008 Dumps

## CompTIA Network+Exam

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**NEW QUESTION 1**

- (Topic 1)

A branch of a company recently switched to a new ISP. The network engineer was given a new IP range to assign. The ISP assigned 196.26.4.0/26, and the branch gateway router now has the following configurations on the interface that peers to the ISP:

IP address:	196.26.4.30
Subnet mask:	255.255.255.224
Gateway:	196.24.4.1

The network engineer observes that all users have lost Internet connectivity. Which of the following describes the issue?

- A. The incorrect subnet mask was configured
- B. The incorrect gateway was configured
- C. The incorrect IP address was configured
- D. The incorrect interface was configured

**Answer:** C

**Explanation:**

The IP address configured on the router interface is 196.26.4.1/26, which belongs to the IP range assigned by the ISP (196.26.4.0/26). However, this IP address is not valid for this interface because it is the network address of the subnet, which cannot be assigned to any host device. The network address is the first address of a subnet that identifies the subnet itself. The valid IP addresses for this subnet are from 196.26.4.1 to 196.26.4.62, excluding the network address (196.26.4.0) and the broadcast address (196.26.4.63). The router interface should be configured with a valid IP address within this range to restore Internet connectivity for all users. References: [https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-\(2-0\)](https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0)), <https://www.techopedia.com/definition/24136/network-address>

**NEW QUESTION 2**

- (Topic 1)

Which of the following would need to be configured to ensure a device with a specific MAC address is always assigned the same IP address from DHCP?

- A. Scope options
- B. Reservation
- C. Dynamic assignment
- D. Exclusion
- E. Static assignment

**Answer:** B

**Explanation:**

A reservation should be configured to ensure a device with a specific MAC address is always assigned the same IP address from DHCP. A reservation is a feature of DHCP that allows an administrator to assign a fixed IP address to a device based on its MAC address. This way, the device will always receive the same IP address from the DHCP server, even if it is powered off or disconnected from the network for a long time. References: <https://docs.microsoft.com/en-us/windows-server/troubleshoot/configure-dhcp-reservations>

**NEW QUESTION 3**

- (Topic 1)

Branch users are experiencing issues with videoconferencing. Which of the following will the company MOST likely configure to improve performance for these applications?

- A. Link Aggregation Control Protocol
- B. Dynamic routing
- C. Quality of service
- D. Network load balancer
- E. Static IP addresses

**Answer:** C

**Explanation:**

To improve performance for videoconferencing, the company should configure Quality of Service (QoS). This technology allows for the prioritization of network traffic, ensuring that videoconferencing traffic is given higher priority and therefore better performance. Link Aggregation Control Protocol (LACP), Dynamic routing, Network load balancer, and Static IP addresses are not directly related to improving performance for videoconferencing.

References:

? Network+ N10-007 Certification Exam Objectives, Objective 2.6: Given a scenario, implement and configure the appropriate wireless security and implement the appropriate QoS concepts.

**NEW QUESTION 4**

- (Topic 1)

Which of the following service models would MOST likely be used to replace on-premises servers with a cloud solution?

- A. PaaS
- B. IaaS
- C. SaaS
- D. Disaster recovery as a Service (DRaaS)

**Answer:** B

**Explanation:**

IaaS stands for Infrastructure as a Service, which is a cloud service model that provides virtualized computing resources over the Internet, such as servers, storage, networking, and operating systems. IaaS allows customers to replace their on-premises servers with cloud servers that can be scaled up or down on demand and pay only for what they use. PaaS stands for Platform as a Service, which provides customers with a cloud-based platform for developing, testing, and deploying applications without managing the underlying infrastructure. SaaS stands for Software as a Service, which provides customers with access to cloud-based software applications over the Internet without installing or maintaining them on their devices. Disaster recovery as a Service (DRaaS) is a type of cloud service that provides customers with backup and recovery solutions for their data and applications in case of a disaster.

**NEW QUESTION 5**

- (Topic 1)

A network administrator is implementing OSPF on all of a company's network devices. Which of the following will MOST likely replace all the company's hubs?

- A. A Layer 3 switch
- B. A proxy server
- C. A NGFW
- D. A WLAN controller

**Answer:** A

**Explanation:**

A Layer 3 switch will likely replace all the company's hubs when implementing OSPF on all of its network devices. A Layer 3 switch combines the functionality of a traditional Layer 2 switch with the routing capabilities of a router. By implementing OSPF on a Layer 3 switch, an organization can improve network performance and reduce the risk of network congestion. References: Network+ Certification Study Guide, Chapter 5: Network Security

**NEW QUESTION 6**

- (Topic 1)

Which of the following DNS records works as an alias to another record?

- A. AAAA
- B. CNAME
- C. MX
- D. SOA

**Answer:** B

**Explanation:**

The DNS record that works as an alias to another record is called CNAME (Canonical Name). CNAME records are used to create an alias for a domain name that points to another domain name.

References:

? CompTIA Network+ Certification Study Guide, Exam N10-007, Fourth Edition, Chapter 2: The OSI Model and Networking Protocols, Objective 2.3: Given a scenario, implement and configure the appropriate addressing schema.

**NEW QUESTION 7**

- (Topic 1)

A store owner would like to have secure wireless access available for both business equipment and patron use. Which of the following features should be configured to allow different wireless access through the same equipment?

- A. MIMO
- B. TKIP
- C. LTE
- D. SSID

**Answer:** D

**Explanation:**

SSID (Service Set Identifier) is a feature that should be configured to allow different wireless access through the same equipment. SSID is the name of a wireless network that identifies it from other networks in the same area. A wireless access point (AP) can support multiple SSIDs with different security settings and network policies. For example, a store owner can create one SSID for business equipment and another SSID for patron use, and assign different passwords, VLANs, and QoS levels for each SSID. References: <https://www.cisco.com/c/en/us/support/docs/wireless-mobility/wireless-lan-wlan/70931-multiple-ssid.html>

**NEW QUESTION 8**

- (Topic 1)

Which of the following BEST describes a network appliance that warns of unapproved devices that are accessing the network?

- A. Firewall
- B. AP
- C. Proxy server
- D. IDS

**Answer:** D

**Explanation:**

IDS stands for intrusion detection system, which is a network appliance that monitors network traffic and alerts administrators of any suspicious or malicious activity. An IDS can warn of unapproved devices that are accessing the network by detecting anomalies, signatures, or behaviors that indicate unauthorized access attempts or attacks. References: [https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-\(2-0\)](https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0)), <https://www.cisco.com/c/en/us/products/security/what-is-an-intrusion-detection-system-ids.html>

**NEW QUESTION 9**

- (Topic 1)

A technician receives feedback that some users are experiencing high amounts of jitter while using the wireless network. While troubleshooting the network, the technician uses the ping command with the IP address of the default gateway and verifies large variations in latency. The technician thinks the issue may be interference from other networks and non-802.11 devices. Which of the following tools should the technician use to troubleshoot the issue?

- A. NetFlow analyzer
- B. Bandwidth analyzer
- C. Protocol analyzer
- D. Spectrum analyzer

**Answer:** D

**Explanation:**

A spectrum analyzer is a tool that measures the frequency and amplitude of signals in a wireless network. It can be used to troubleshoot issues related to interference from other networks and non-802.11 devices, such as microwave ovens or cordless phones, by identifying the sources and levels of interference in the wireless spectrum. A spectrum analyzer can also help to optimize the channel selection and placement of wireless access points. References: [https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-\(2-0\)](https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0)), <https://www.flukenetworks.com/blog/cabling-chronicles/what-spectrum-analyzer-and-how-do-you-use-it>

**NEW QUESTION 10**

- (Topic 1)

A technician is troubleshooting a network switch that seems to stop responding to requests intermittently whenever the logging level is set for debugging. Which of the following metrics should the technician check to begin troubleshooting the issue?

- A. Audit logs
- B. CPU utilization
- C. CRC errors
- D. Jitter

**Answer:** B

**Explanation:**

CPU utilization is a metric that measures the percentage of time a CPU spends executing instructions. When the logging level is set for debugging, the router may generate a large amount of logging data, which can increase CPU utilization and cause the router to stop responding to requests intermittently. References: ? Network+ N10-008 Objectives: 2.1 Given a scenario, troubleshoot common physical connectivity issues.

**NEW QUESTION 10**

- (Topic 1)

A company built a new building at its headquarters location. The new building is connected to the company's LAN via fiber-optic cable. Multiple users in the new building are unable to access the company's intranet site via their web browser, but they are able to access internet sites. Which of the following describes how the network administrator can resolve this issue?

- A. Correct the DNS server entries in the DHCP scope
- B. Correct the external firewall gateway address
- C. Correct the NTP server settings on the clients
- D. Correct a TFTP Issue on the company's server

**Answer:** A

**Explanation:**

If multiple users in a new building are unable to access the company's intranet site via their web browser but are able to access internet sites, the network administrator can resolve this issue by correcting the DNS server entries in the DHCP scope. The DHCP scope is responsible for assigning IP addresses and DNS server addresses to clients. If the DNS server entries are incorrect, clients will not be able to access intranet sites.

References:

? CompTIA Network+ Certification Study Guide, Exam N10-007, Fourth Edition, Chapter 4: Network Implementations, Objective 4.4: Explain the purpose and properties of DHCP.

**NEW QUESTION 11**

- (Topic 1)

A network engineer is investigating reports of poor network performance. Upon reviewing a device configuration, the engineer finds that duplex settings are mismatched on both ends. Which of the following would be the MOST likely result of this finding?

- A. Increased CRC errors
- B. Increased giants and runts
- C. Increased switching loops
- D. Increased device temperature

**Answer:** A

**Explanation:**

Mismatched duplex settings can cause an increase in CRC errors, which are errors in data transmission that can result in corrupted data. References: CompTIA Network+ Certification Study Guide, Chapter 4: Infrastructure.

**NEW QUESTION 12**

- (Topic 1)

A technician is deploying a new switch model and would like to add it to the existing network monitoring software. The technician wants to know what metrics can be gathered from a given switch. Which of the following should the technician utilize for the switch?

- A. MIB
- B. Trap
- C. Syslog
- D. Audit log

**Answer:** A

**Explanation:**

To determine what metrics can be gathered from a given switch, a technician should utilize the Management Information Base (MIB). The MIB is a database of network management information that is used to manage and monitor network devices. It contains information about device configuration, status, and performance. References: Network+ Certification Study Guide, Chapter 5: Network Security

**NEW QUESTION 13**

- (Topic 1)

A technician is assisting a user who cannot connect to a network resource. The technician first checks for a link light. According to troubleshooting methodology, this is an example of:

- A. using a bottom-to-top approach.
- B. establishing a plan of action.
- C. documenting a finding.
- D. questioning the obvious.

**Answer:** A

**Explanation:**

Using a bottom-to-top approach means starting from the physical layer and moving up the OSI model to troubleshoot a network problem. Checking for a link light is a physical layer check that verifies the connectivity of the network cable and device. References: <https://www.professormesser.com/network-plus/n10-007/troubleshooting-methodologies-2/>

**NEW QUESTION 17**

- (Topic 1)

The following configuration is applied to a DHCP server connected to a VPN concentrator:

```
IP address:      10.0.0.1
Subnet mask:     255.255.255.0
Gateway:        10.0.0.254
```

There are 300 non-concurrent sales representatives who log in for one hour a day to upload reports, and 252 of these representatives are able to connect to the VPN without any issues. The remaining sales representatives cannot connect to the VPN over the course of the day. Which of the following can be done to resolve the issue without utilizing additional resources?

- A. Decrease the lease duration
- B. Reboot the DHCP server
- C. Install a new VPN concentrator
- D. Configure a new router

**Answer:** A

**Explanation:**

Decreasing the lease duration on the DHCP server will cause clients to renew their IP address leases more frequently, freeing up IP addresses for other clients to use. References: CompTIA Network+ Certification Study Guide, Chapter 3: IP Addressing.

**NEW QUESTION 21**

- (Topic 1)

Which of the following transceiver types can support up to 40Gbps?

- A. SFP+
- B. QSFP+
- C. QSFP
- D. SFP

**Answer:** B

**Explanation:**

QSFP+ is a transceiver type that can support up to 40Gbps. It stands for Quad Small Form-factor Pluggable Plus and uses four lanes of data to achieve high-speed transmission. It is commonly used for data center and high-performance computing applications. References: [https://www.cisco.com/c/en/us/products/collateral/interfaces-modules/transceiver-modules/data\\_sheet\\_c78-660083.html](https://www.cisco.com/c/en/us/products/collateral/interfaces-modules/transceiver-modules/data_sheet_c78-660083.html)

**NEW QUESTION 24**

- (Topic 1)

Which of the following is MOST likely to generate significant East-West traffic in a datacenter?

- A. A backup of a large video presentation to cloud storage for archival purposes
- B. A duplication of a hosted virtual server to another physical server for redundancy
- C. A download of navigation data to a portable device for offline access
- D. A query from an IoT device to a cloud-hosted server for a firmware update



**Answer:** B

**Explanation:**

East-West traffic refers to data flows between servers or devices within the same datacenter. When a hosted virtual server is duplicated to another physical server for redundancy, it generates significant East-West traffic as the data is replicated between the two servers. References:  
? Network+ N10-008 Objectives: 3.3 Given a scenario, implement secure network architecture concepts.

**NEW QUESTION 28**

- (Topic 1)

A systems administrator needs to improve WiFi performance in a densely populated office tower and use the latest standard. There is a mix of devices that use 2.4 GHz and 5 GHz. Which of the following should the systems administrator select to meet this requirement?

- A. 802.11ac
- B. 802.11ax
- C. 802.11g
- D. 802.11n

**Answer:** B

**Explanation:**

802.11ax is the latest WiFi standard that improves WiFi performance in densely populated environments and supports both 2.4 GHz and 5 GHz bands. 802.11ac is the previous standard that only supports 5 GHz band. 802.11g and 802.11n are older standards that support 2.4 GHz band only or both bands respectively. References: [https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-\(2-0\)](https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0)), <https://www.techtarget.com/searchnetworking/tip/Whats-the-difference-between-80211ax-vs-80211ac>

**NEW QUESTION 31**

- (Topic 1)

Which of the following is the physical topology for an Ethernet LAN?

- A. Bus
- B. Ring
- C. Mesh
- D. Star

**Answer:** D

**Explanation:**

In a star topology, all devices on a network connect to a central hub or switch, which acts as a common connection point. Ethernet LANs typically use a star topology, with each device connected to a central switch. References:  
? Network+ N10-008 Objectives: 2.2 Explain common logical network topologies and their characteristics.

**NEW QUESTION 36**

- (Topic 1)

Which of the following types of devices can provide content filtering and threat protection, and manage multiple IPSec site-to-site connections?

- A. Layer 3 switch
- B. VPN headend
- C. Next-generation firewall
- D. Proxy server
- E. Intrusion prevention

**Answer:** C

**Explanation:**

Next-generation firewalls can provide content filtering and threat protection, and can manage multiple IPSec site-to-site connections. References: CompTIA Network+ Certification Study Guide, Chapter 5: Network Security.

**NEW QUESTION 38**

- (Topic 1)

An attacker is attempting to find the password to a network by inputting common words and phrases in plaintext to the password prompt. Which of the following attack types BEST describes this action?

- A. Pass-the-hash attack
- B. Rainbow table attack
- C. Brute-force attack
- D. Dictionary attack

**Answer:** D

**Explanation:**

The attacker attempting to find the password to a network by inputting common words and phrases in plaintext to the password prompt is using a dictionary attack. References: CompTIA Network+ Certification Study Guide, Chapter 6: Network Attacks and Mitigation.

**NEW QUESTION 39**

- (Topic 1)

Which of the following factors should be considered when evaluating a firewall to protect a datacenter's east-west traffic?

- A. Replication traffic between an on-premises server and a remote backup facility
- B. Traffic between VMs running on different hosts
- C. Concurrent connections generated by Internet DDoS attacks
- D. VPN traffic from remote offices to the datacenter's VMs

**Answer:** B

**Explanation:**

When evaluating a firewall to protect a datacenter's east-west traffic, it is important to consider traffic between VMs running on different hosts. This type of traffic is referred to as east-west traffic and is often protected by internal firewalls. By implementing firewalls, an organization can protect their internal network against threats such as lateral movement, which can be caused by attackers who have breached a perimeter firewall. References: Network+ Certification Study Guide, Chapter 5: Network Security

**NEW QUESTION 41**

- (Topic 1)

A new cabling certification is being requested every time a network technician rebuilds one end of a Cat 6 (vendor-certified) cable to create a crossover connection that is used to connect switches. Which of the following would address this issue by allowing the use of the original cable?

- A. CSMA/CD
- B. LACP
- C. PoE+
- D. MDIX

**Answer:** D

**Explanation:**

MDIX (medium-dependent interface crossover) is a feature that allows network devices to automatically detect and configure the appropriate cabling type, eliminating the need for crossover cables. By enabling MDIX on the switches, a technician can use the original Cat 6 cable to create a crossover connection. References: CompTIA Network+ Certification Study Guide, Sixth Edition by Glen E. Clarke

**NEW QUESTION 43**

- (Topic 1)

A network administrator is designing a new datacenter in a different region that will need to communicate to the old datacenter with a secure connection. Which of the following access methods would provide the BEST security for this new datacenter?

- A. Virtual network computing
- B. Secure Socket Shell
- C. In-band connection
- D. Site-to-site VPN

**Answer:** D

**Explanation:**

Site-to-site VPN provides the best security for connecting a new datacenter to an old one because it creates a secure tunnel between the two locations, protecting data in transit. References: CompTIA Network+ Certification Study Guide, Chapter 5: Network Security.

**NEW QUESTION 47**

- (Topic 1)

A workstation is configured with the following network details:

IP address	Subnet mask	Default gateway
10.1.2.23	10.1.2.0/27	10.1.2.1

Software on the workstation needs to send a query to the local subnet broadcast address. To which of the following addresses should the software be configured to send the query?

- A. 10.1.2.0
- B. 10.1.2.1
- C. 10.1.2.23
- D. 10.1.2.255
- E. 10.1.2.31

**Answer:** D

**Explanation:**

The software on the workstation should be configured to send the query to 10.1.2.255, which is the local subnet broadcast address. A broadcast address is a special address that allows a device to send a message to all devices on the same subnet. It is usually derived by setting all the host bits to 1 in the network address. In this case, the network address is 10.1.2.0/27, which has 27 network bits and 5 host bits. By setting all the host bits to 1, we get 10.1.2.31 as the broadcast address in decimal notation, or 10.1.2.255 in dotted decimal notation. References: [https://www.cisco.com/c/en/us/support/docs/ip/routing-information-protocol-rip/13788- 3.html](https://www.cisco.com/c/en/us/support/docs/ip/routing-information-protocol-rip/13788-3.html)

**NEW QUESTION 51**

- (Topic 1)

An IT organization needs to optimize speeds for global content distribution and wants to reduce latency in high-density user locations. Which of the following technologies BEST meets the organization's requirements?

- A. Load balancing
- B. Geofencing

- C. Public cloud
- D. Content delivery network
- E. Infrastructure as a service

**Answer: D**

**Explanation:**

A content delivery network (CDN) is a distributed network of servers that delivers web content to users based on their geographic location. By replicating content across multiple servers in various locations, a CDN can optimize speed and reduce latency in high-density user locations.

**NEW QUESTION 56**

- (Topic 1)

A network engineer configured new firewalls with the correct configuration to be deployed to each remote branch. Unneeded services were disabled, and all firewall rules were applied successfully. Which of the following should the network engineer perform NEXT to ensure all the firewalls are hardened successfully?

- A. Ensure an implicit permit rule is enabled
- B. Configure the log settings on the firewalls to the central syslog server
- C. Update the firewalls with current firmware and software
- D. Use the same complex passwords on all firewalls

**Answer: C**

**Explanation:**

Updating the firewalls with current firmware and software is an important step to ensure all the firewalls are hardened successfully, as it can fix any known vulnerabilities or bugs and provide new features or enhancements. Enabling an implicit permit rule is not a good practice for firewall hardening, as it can allow unwanted traffic to pass through the firewall. Configuring the log settings on the firewalls to the central syslog server is a good practice for monitoring and auditing purposes, but it does not harden the firewalls themselves. Using the same complex passwords on all firewalls is not a good practice for password security, as it can increase the risk of compromise if one firewall is breached. References: CompTIA Network+ Certification Exam Objectives Version 2.0 (Exam Number: N10-006), Domain 3.0 Network Security, Objective 3.3 Given a scenario, implement network hardening techniques.

**NEW QUESTION 59**

- (Topic 1)

Given the following information:

Protocol	Local address	Foreign address	State
TCP	127.0.0.1:57779	Desktop-Open:57780	Established
TCP	127.0.0.1:57780	Desktop-Open:57779	Established

Which of the following command-line tools would generate this output?

- A. netstat
- B. arp
- C. dig
- D. tracert

**Answer: D**

**Explanation:**

Tracert is a command-line tool that traces the route of a packet from a source to a destination and displays the number of hops and the round-trip time for each hop. The output shown in the question is an example of a tracert output, which shows five hops with their IP addresses and hostnames (if available) and three latency measurements for each hop in milliseconds. References: [https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-\(2-0\)](https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0)), <https://www.lumen.com/help/en-us/network/traceroute/understanding-the-traceroute-output.html>

**NEW QUESTION 60**

- (Topic 1)

Which of the following would be BEST to use to detect a MAC spoofing attack?

- A. Internet Control Message Protocol
- B. Reverse Address Resolution Protocol
- C. Dynamic Host Configuration Protocol
- D. Internet Message Access Protocol

**Answer: B**

**Explanation:**

Reverse Address Resolution Protocol (RARP) is a protocol that allows a device to obtain its MAC address from its IP address. A MAC spoofing attack is an attack where a device pretends to have a different MAC address than its actual one. RARP can be used to detect a MAC spoofing attack by comparing the MAC address obtained from RARP with the MAC address obtained from other sources, such as ARP or DHCP. References: [https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-\(2-0\)](https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0)), <https://www.techopedia.com/definition/25597/reverse-address-resolution-protocol-rarp>

**NEW QUESTION 63**

- (Topic 1)

Which of the following can be used to centrally manage credentials for various types of administrative privileges on configured network devices?

- A. SSO
- B. TACACS+
- C. Zero Trust
- D. Separation of duties



E. Multifactor authentication

**Answer:** B

**Explanation:**

TACACS+ (Terminal Access Controller Access Control System Plus) can be used to centrally manage credentials for various types of administrative privileges on configured network devices. This protocol separates authentication, authorization, and accounting (AAA) functions, providing more granular control over access to network resources.

References:

? Network+ N10-007 Certification Exam Objectives, Objective 4.2: Given a scenario, implement secure network administration principles.

**NEW QUESTION 64**

- (Topic 1)

Which of the following is used to track and document various types of known vulnerabilities?

- A. CVE
- B. Penetration testing
- C. Zero-day
- D. SIEM
- E. Least privilege

**Answer:** A

**Explanation:**

CVE stands for Common Vulnerabilities and Exposures, which is a list of publicly disclosed cybersecurity vulnerabilities that is free to search, use, and incorporate into products and services. CVE provides a standardized identifier and description for each vulnerability, as well as references to related sources of information.

CVE helps to track and document various types of known vulnerabilities and facilitates communication and coordination among security professionals. References:

[https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-\(2-0\)](https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0)), <https://cve.mitre.org/cve/>

**NEW QUESTION 69**

- (Topic 1)

A network engineer performs the following tasks to increase server bandwidth: Connects two network cables from the server to a switch stack

Configure LACP on the switchports

Verifies the correct configurations on the switch interfaces Which of the following needs to be configured on the server?

- A. Load balancing
- B. Multipathing
- C. NIC teaming
- D. Clustering

**Answer:** C

**Explanation:**

NIC teaming is a technique that combines two or more network interface cards (NICs) on a server into a single logical interface that can increase bandwidth, provide redundancy, and balance traffic. NIC teaming can be configured with different modes and algorithms depending on the desired outcome. Link Aggregation Control Protocol (LACP) is a protocol that enables NIC teaming by dynamically bundling multiple links between two devices into one logical link. References:

[https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-\(2-0\)](https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0)), <https://docs.microsoft.com/en-us/windows-server/networking/technologies/nic-teaming/nic-teaming>

**NEW QUESTION 70**

- (Topic 1)

An engineer notices some late collisions on a half-duplex link. The engineer verifies that the devices on both ends of the connection are configured for half duplex.

Which of the following is the MOST likely cause of this issue?

- A. The link is improperly terminated
- B. One of the devices is misconfigured
- C. The cable length is excessive
- D. One of the devices has a hardware issue

**Answer:** C

**Explanation:**

In a half-duplex link, devices can only send or receive data at one time, not simultaneously. Late collisions occur when devices transmit data at the same time after waiting for a clear channel. One of the causes of late collisions is excessive cable length, which increases the propagation delay and makes it harder for devices to detect collisions. The link termination, device configuration, and device hardware are not likely to cause late collisions on a half-duplex link.

**NEW QUESTION 71**

- (Topic 1)

The network administrator is informed that a user's email password is frequently hacked by brute-force programs. Which of the following policies should the network administrator implement to BEST mitigate this issue? (Choose two.)

- A. Captive portal
- B. Two-factor authentication
- C. Complex passwords
- D. Geofencing
- E. Role-based access
- F. Explicit deny

**Answer:** BC

**Explanation:**

Two-factor authentication (2FA) is a method of verifying a user's identity by requiring two pieces of evidence, such as something the user knows (e.g., a password) and something the user has (e.g., a token or a smartphone). 2FA adds an extra layer of security that makes it harder for hackers to access a user's account by brute-force programs. Complex passwords are passwords that are long, random, and use a combination of uppercase and lowercase letters, numbers, and symbols. Complex passwords are more resistant to brute-force attacks than simple or common passwords. References:

[https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-\(2-0\)](https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0)), <https://www.csoonline.com/article/3225913/what-is-two-factor-authentication-2fa-how-to-enable-it-and-why-you-should.html>, <https://www.howtogeek.com/195430/how-to-create-a-strong-password-and-remember-it/>

**NEW QUESTION 74**

- (Topic 1)

Which of the following provides redundancy on a file server to ensure the server is still connected to a LAN even in the event of a port failure on a switch?

- A. NIC teaming
- B. Load balancer
- C. RAID array
- D. PDUs

**Answer:** A

**Explanation:**

NIC teaming, also known as network interface card teaming or link aggregation, allows multiple network interface cards to be grouped together to provide redundancy and increased throughput. In the event of a port failure on a switch, NIC teaming ensures that the file server remains connected to the LAN by automatically switching to another network interface card.

References: CompTIA Network+ Certification Study Guide, Sixth Edition by Glen E. Clarke

**NEW QUESTION 77**

- (Topic 1)

A technician is searching for a device that is connected to the network and has the device's physical network address. Which of the following should the technician review on the switch to locate the device's network port?

- A. IP route table
- B. VLAN tag
- C. MAC table
- D. QoS tag

**Answer:** C

**Explanation:**

To locate a device's network port on a switch, a technician should review the switch's MAC address table. The MAC address table maintains a list of MAC addresses of devices connected to each port on the switch. By checking the MAC address of the device in question, the technician can identify the port to which the device is connected. References: CompTIA Network+ Certification Study Guide, Sixth Edition by Glen E. Clarke

**NEW QUESTION 80**

- (Topic 1)

A technician is configuring a network switch to be used in a publicly accessible location. Which of the following should the technician configure on the switch to prevent unintended connections?

- A. DHCP snooping
- B. Geofencing
- C. Port security
- D. Secure SNMP

**Answer:** C

**Explanation:**

Port security is a feature that restricts input to a switch port by limiting and identifying MAC addresses of the devices allowed to access the port. This prevents unintended connections from unauthorized devices or spoofed MAC addresses. Port security can also be configured to take actions such as shutting down the port or sending an alert when a violation occurs. References: [https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-\(2-0\)](https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0)), [https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst9500/software/release/16-10/configuration\\_guide/sec/b\\_1610\\_sec\\_9500\\_cg/b\\_1610\\_sec\\_9500\\_cg\\_chapter\\_010101\\_0.html](https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst9500/software/release/16-10/configuration_guide/sec/b_1610_sec_9500_cg/b_1610_sec_9500_cg_chapter_010101_0.html)

**NEW QUESTION 82**

- (Topic 1)

A network technician is installing new software on a Windows-based server in a different geographical location. Which of the following would be BEST for the technician to use to perform this task?

- A. RDP
- B. SSH
- C. FTP
- D. DNS

**Answer:** A

**Explanation:**

RDP (Remote Desktop Protocol) is the best option for a network technician to use when installing new software on a Windows-based server in a different geographical location. This protocol allows the technician to connect to the server remotely and control it as if they were physically present.

References:

? Network+ N10-007 Certification Exam Objectives, Objective 2.2: Given a scenario, implement the appropriate network-based security and troubleshoot common connectivity issues.

## NEW QUESTION 84

### SIMULATION - (Topic 1)

You are tasked with verifying the following requirements are met in order to ensure network security.

Requirements: Datacenter

Ensure network is subnetted to allow all devices to communicate properly while minimizing address space usage

Provide a dedicated server to resolve IP addresses and hostnames correctly and handle port 53 traffic

Building A

Ensure network is subnetted to allow all devices to communicate properly while minimizing address space usage

Provide devices to support 5 additional different office users Add an additional mobile user

Replace the Telnet server with a more secure solution Screened subnet

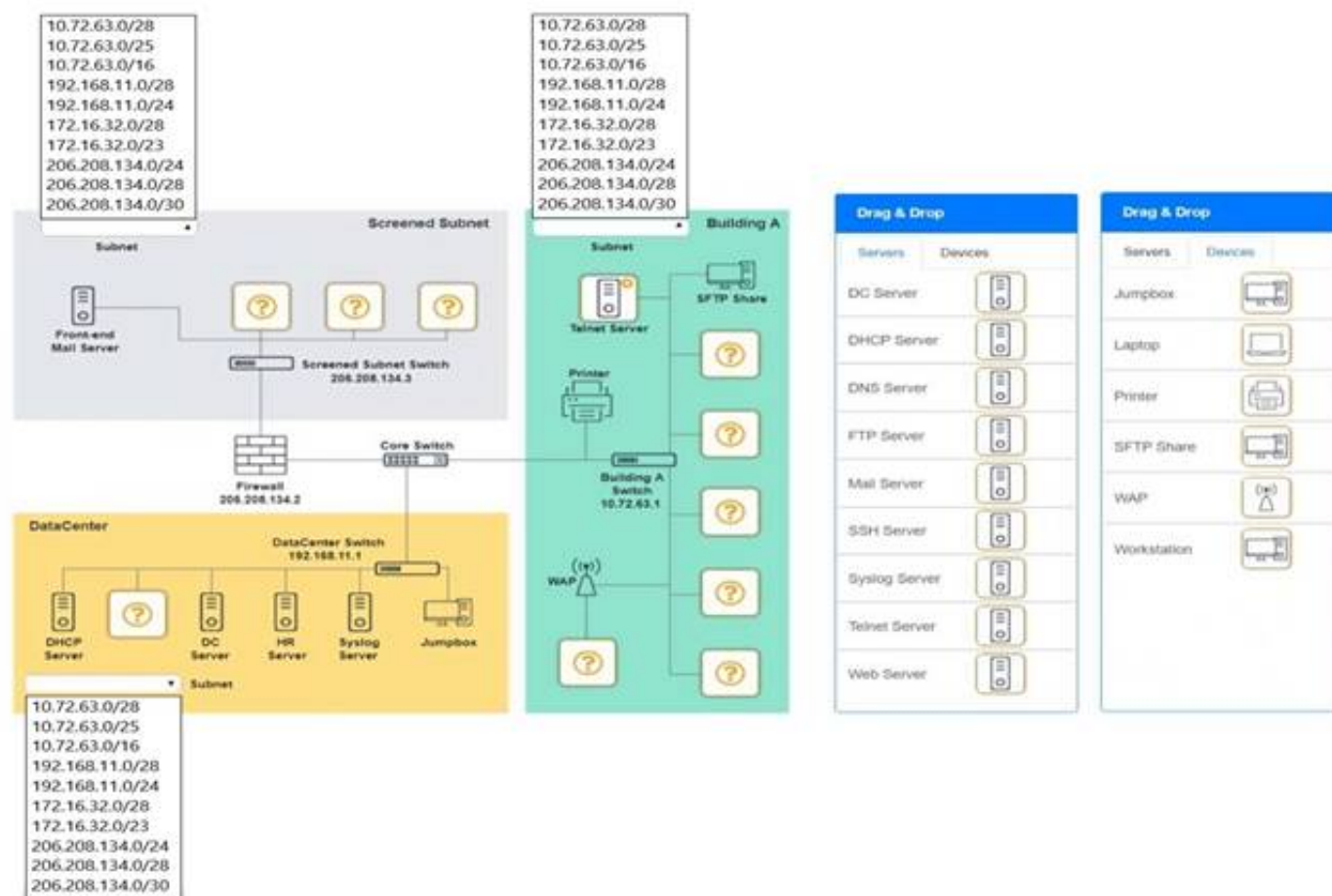
Ensure network is subnetted to allow all devices to communicate properly while minimizing address space usage

Provide a server to handle external 80/443 traffic Provide a server to handle port 20/21 traffic INSTRUCTIONS

Drag and drop objects onto the appropriate locations. Objects can be used multiple times and not all placeholders need to be filled.

Available objects are located in both the Servers and Devices tabs of the Drag & Drop menu.

If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.



A. Mastered

B. Not Mastered

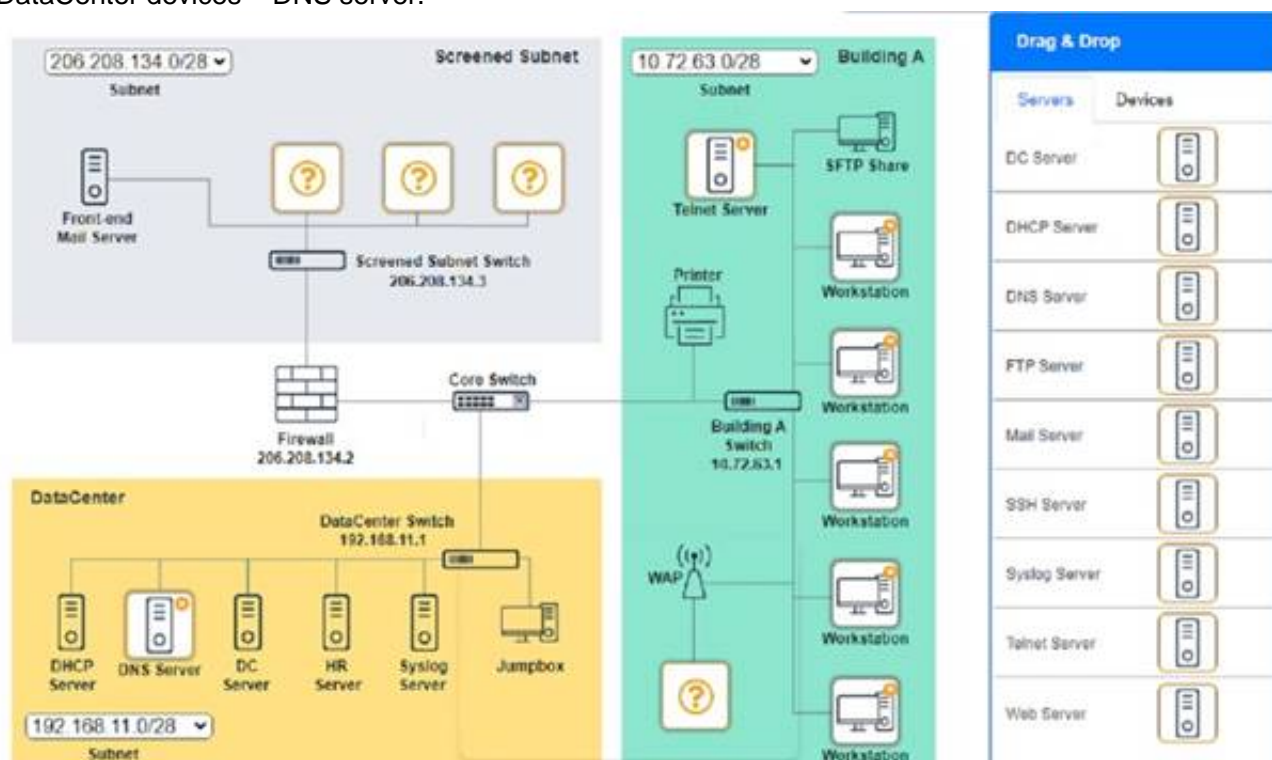
**Answer: A**

### Explanation:

Screened Subnet devices – Web server, FTP server

Building A devices – SSH server top left, workstations on all 5 on the right, laptop on bottom left

DataCenter devices – DNS server.







A screenshot of a computer  
Description automatically generated

#### NEW QUESTION 89

- (Topic 1)

Within the realm of network security, Zero Trust:

- A. prevents attackers from moving laterally through a system.
- B. allows a server to communicate with outside networks without a firewall.
- C. block malicious software that is too new to be found in virus definitions.
- D. stops infected files from being downloaded via websites.

**Answer: A**

#### Explanation:

Zero Trust is a security framework that requires all users, whether in or outside the organization's network, to be authenticated, authorized, and continuously validated for security configuration and posture before being granted or keeping access to applications and data. Zero Trust prevents attackers from moving laterally through a system by applying granular policies and controls based on the principle of least privilege and by segmenting and encrypting data flows across the network. References: [https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-\(2-0\)](https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0)), <https://www.crowdstrike.com/cybersecurity-101/zero-trust-security/>

#### NEW QUESTION 90

- (Topic 1)

A technician is troubleshooting a wireless connectivity issue in a small office located in a high-rise building. Several APs are mounted in this office. The users report that the network connections frequently disconnect and reconnect throughout the day. Which of the following is the MOST likely cause of this issue?

- A. The AP association time is set too low
- B. EIRP needs to be boosted
- C. Channel overlap is occurring
- D. The RSSI is misreported

**Answer:** C

**Explanation:**

Channel overlap is a common cause of wireless connectivity issues, especially in high-density environments where multiple APs are operating on the same or adjacent frequencies. Channel overlap can cause interference, signal degradation, and performance loss for wireless devices. The AP association time, EIRP, and RSSI are not likely to cause frequent disconnects and reconnects for wireless users.

**NEW QUESTION 93**

- (Topic 1)

Several WIFI users are reporting the inability to connect to the network. WLAN users on the guest network are able to access all network resources without any performance issues. The following table summarizes the findings after a site survey of the area in question:

Location	AP 1	AP 2	AP 3	AP 4
SSID	Corp1	Corp1	Corp1/Guest	Corp1/Guest
Channel	2	1	5	11
RSSI	-81dBm	-82dBm	-44dBm	-41dBm
Antenna type	Omni	Omni	Directional	Directional

Which of the following should a wireless technician do NEXT to troubleshoot this issue?

- A. Reconfigure the channels to reduce overlap
- B. Replace the omni antennas with directional antennas
- C. Update the SSIDs on all the APs
- D. Decrease power in AP 3 and AP 4

**Answer:** B

**Explanation:**

Based on the site survey table, we can see that AP 2, AP 3, and AP 4 are all broadcasting on the same channel, which can cause interference and affect performance. Therefore, the next step a wireless technician should take to troubleshoot this issue is to reconfigure the channels to reduce overlap. This will help to improve network performance and eliminate any interference.

References:

? Network+ N10-007 Certification Exam Objectives, Objective 2.8: Given a scenario, troubleshoot common wireless problems and perform site surveys.

**NEW QUESTION 95**

- (Topic 1)

A user reports being unable to access network resources after making some changes in the office. Which of the following should a network technician do FIRST?

- A. Check the system's IP address
- B. Do a ping test against the servers
- C. Reseat the cables into the back of the PC
- D. Ask what changes were made

**Answer:** D

**Explanation:**

When a user reports being unable to access network resources after making some changes, the network technician should first ask the user what changes were made. This information can help the technician identify the cause of the issue and determine the appropriate course of action.

References: CompTIA Network+ Certification Study Guide, Sixth Edition by Glen E. Clarke

**NEW QUESTION 97**

- (Topic 1)

After the A record of a public website was updated, some visitors were unable to access the website. Which of the following should be adjusted to address the issue?

- A. TTL
- B. MX
- C. TXT
- D. SOA

**Answer:** A

**Explanation:**

TTL (Time To Live) should be adjusted to address the issue of some visitors being unable to access the website after the A record was updated. TTL is a value that specifies how long a DNS record should be cached by DNS servers and clients before it expires and needs to be refreshed. If the TTL is too high, some DNS servers and clients may still use the old A record that points to the previous IP address of the website, resulting in connection failures. By lowering the TTL, the DNS servers and clients will update their cache more frequently and use the new A record that points to the current IP address of the website. References:

<https://www.cloudflare.com/learning/dns/dns-records/dns-ttl/>

**NEW QUESTION 101**

- (Topic 1)

Which of the following is used to prioritize Internet usage per application and per user on the network?

- A. Bandwidth management
- B. Load balance routing
- C. Border Gateway Protocol
- D. Administrative distance



**Answer:** A

**Explanation:**

Bandwidth management is used to prioritize Internet usage per application and per user on the network. This allows an organization to allocate network resources to mission-critical applications and users, while limiting the bandwidth available to non- business-critical applications. References: Network+ Certification Study Guide, Chapter 2: Network Operations

**NEW QUESTION 104**

- (Topic 1)

A technician is writing documentation regarding a company's server farm. The technician needs to confirm the server name for all Linux servers. Which of the following commands should the technician run?

- A. ipconfig
- B. nslookup
- C. arp
- D. route

**Answer:** B

**Explanation:**

The nslookup command should be run to confirm the server name for all Linux servers. Nslookup is a tool that queries DNS servers to resolve hostnames to IP addresses or vice versa. It can also provide other information about DNS records, such as MX, NS, SOA, etc. By running nslookup with the IP address of a Linux server, the technician can obtain its hostname. References: <https://www.howtogeek.com/663056/how-to-use-the-nslookup-command-on-linux/>

**NEW QUESTION 106**

- (Topic 1)

According to troubleshooting methodology, which of the following should the technician do NEXT after determining the most likely probable cause of an issue?

- A. Establish a plan of action to resolve the issue and identify potential effects
- B. Verify full system functionality and, if applicable, implement preventive measures
- C. Implement the solution or escalate as necessary
- D. Test the theory to determine the cause

**Answer:** A

**Explanation:**

According to troubleshooting methodology, after determining the most likely probable cause of an issue, the next step is to establish a plan of action to resolve the issue and identify potential effects. This step involves defining the steps needed to implement a solution, considering the possible consequences of each step, and obtaining approval from relevant stakeholders if necessary. References: [https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-\(2-0\)](https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0)), <https://www.comptia.org/blog/the-comptia-guide-to-it-troubleshooting>

**NEW QUESTION 108**

- (Topic 1)

A technician is installing a high-density wireless network and wants to use an available frequency that supports the maximum number of channels to reduce interference. Which of the following standard 802.11 frequency ranges should the technician look for while reviewing WAP specifications?

- A. 2.4GHz
- B. 5GHz
- C. 6GHz
- D. 900MHz

**Answer:** B

**Explanation:**

802.11a/b/g/n/ac wireless networks operate in two frequency ranges: 2.4 GHz and 5 GHz. The 5 GHz frequency range supports more channels than the 2.4 GHz frequency range, making it a better choice for high-density wireless networks. References: CompTIA Network+ Certification Study Guide, Sixth Edition by Glen E. Clarke

**NEW QUESTION 110**

SIMULATION - (Topic 1)

SIMULATION

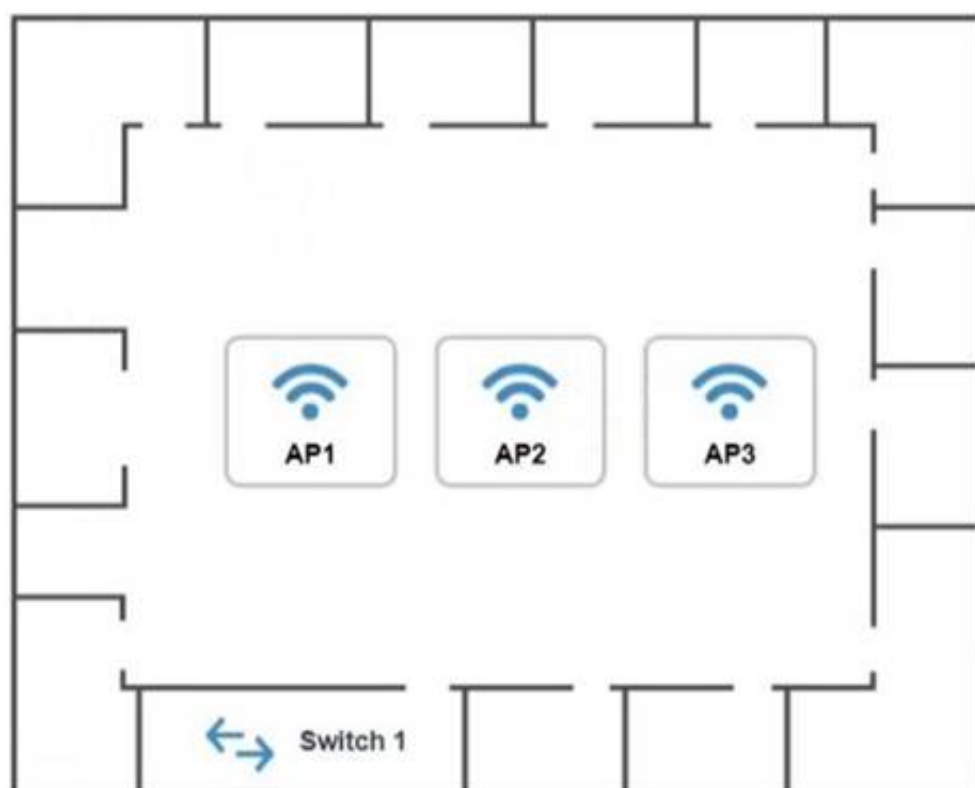
You have been tasked with setting up a wireless network in an office. The network will consist of 3 Access Points and a single switch. The network must meet the following parameters:

The SSIDs need to be configured as CorpNet with a key of S3cr3t! The wireless signals should not interfere with each other

The subnet the Access Points and switch are on should only support 30 devices maximum The Access Points should be configured to only support TKIP clients at a maximum speed INSTRUCTIONS

Click on the wireless devices and review their information and adjust the settings of the access points to meet the given requirements.

If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.



192.168.1.2  
Speed: Auto  
Duplex: Auto

**AP1 Configuration**

https://ap1.setup.do

Basic Configuration

Access Point Name

AP1

IP Address

/

Gateway

192.168.1.1

SSID

SSID Broadcast

☒ Yes ☐ No

Wireless

Mode

B  
G

Channel

Wired

Speed

☐ Auto ☒ 100 ☐ 1000

Duplex

☐ Auto ☐ Half ☒ Full

Security Configuration

Security Settings

☒ None ☐ WEP ☐ WPA ☐ WPA2 ☐ WPA2 - Enterprise

Key or Passphrase

Reset to Default

Save

Close

AP2 Configuration

https://ap2.setup.do

Basic Configuration

Access Point Name

AP2

IP Address

/

Gateway

192.168.1.1

SSID

SSID Broadcast

☒ Yes
 ☐ No

Wireless

Mode

B

G

Channel

1

2

3

4

5

6

7

8

9

10

11

Wired

Speed

☐ Auto
 ☒ 100
 ☐ 1000

Duplex

☐ Auto
 ☐ Half
 ☒ Full

Security Configuration

Security Settings

☒ None
 ☐ WEP
 ☐ WPA
 ☐ WPA2
 ☐ WPA2 - Enterprise

Key or Passphrase

Reset to Default

Save

Close

The Leader of IT Certification

visit - <https://www.certleader.com>

AP3 Configuration

https://ap3.setup.do

Basic Configuration

Access Point Name

AP3

IP Address

/

Gateway

192.168.1.1

SSID

SSID Broadcast

☒ Yes
 ☐ No

Wireless

Mode

B

G

Channel

1

2

3

4

5

6

7

8

9

10

11

Wired

Speed

☐ Auto
 ☒ 100
 ☐ 1000

Duplex

☐ Auto
 ☐ Half
 ☒ Full

Security Configuration

Security Settings

☒ None
 ☐ WEP
 ☐ WPA
 ☐ WPA2
 ☐ WPA2 - Enterprise

Key or Passphrase

Reset to Default

Save

Close

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

On the first exhibit, the layout should be as follows

AP1 Configuration

https://ap1.setup.do

Basic Configuration

Access Point Name

AP1

IP Address

192.168.1.32

Gateway

192.168.1.1

SSID

CorpNet

SSID Broadcast

Yes

No

Wireless

Mode

B

Channel

3

Wired

Speed

Auto

100

1000

Duplex

Auto

Half

Full

Security Configuration

Security Settings

None

WEP

WPA

WPA2

WPA2 - Enterprise

Key or Passphrase

S3cr3t!

Graphical user interface, text, application, chat or text message Description automatically generated  
Description automatically generated

AP1 Configuration

https://ap1.setup.do

IP Address

192.168.1.32

27

Gateway

192.168.1.1

SSID

CorpNet

SSID Broadcast

Yes

No

Wireless

Mode

B

Channel

3

Wired

Speed

Auto

100

1000

Duplex

Auto

Half

Full

Security Configuration

Security Settings

None

WEP

WPA

WPA2

WPA2 - Enterprise

Graphical user interface  
Description automatically generated

Security Configuration

Security Settings

None

WEP

WPA

WPA2

WPA2 - Enterprise

Key or Passphrase

S3cr3t!

Graphical user interface, text, application, chat or text message  
Description automatically generated

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AP1 Configuration

←

→

↺

https://ap1.setup.do

IP Address

192.168.1.3 / 27

Gateway

192.168.1.1

SSID

CorpNet

SSID Broadcast

☒ Yes
 ☐ No

Wireless

Mode

G

Channel

3

Wired

Speed

☒ Auto
 ☐ 100
 ☐ 1000

Duplex

☒ Auto
 ☐ Half
 ☐ Full

Security Configuration

Security Settings

☐ None
 ☐ WEP
 ☒ WPA
 ☐ WPA2
 ☐ WPA2 - Enterprise

Key or Passphrase

S3cr3t!

Reset to Default

Save

Close

Graphical user interface  
Description automatically generated  
Exhibit 2 as follows  
Access Point Name AP2

AP2 Configuration

←

→

↺

https://ap2.setup.do

Basic Configuration

Access Point Name

AP2

IP Address

192.168.1.64 / 27

Gateway

192.168.1.1

SSID

CorpNet

SSID Broadcast

☒ Yes
 ☐ No

Wireless

Mode

B

Channel

6

Wired

Speed

☐ Auto
 ☒ 100
 ☐ 1000

Duplex

☐ Auto
 ☐ Half
 ☒ Full

Security Configuration

Reset to Default

Save

Close

Graphical user interface  
Description automatically generated

Security Configuration

Security Settings

☐ None ☐ WEP ☐ WPA ☐ WPA2 ☒ WPA2 - Enterprise

Key or Passphrase

S3cr3t!

Graphical user interface, text, application, chat or text message  
Description automatically generated

AP2 Configuration

←

→

↺

https://ap2.setup.do

IP Address

192.168.1.4 / 27

Gateway

192.168.1.1

SSID

CorpNet

SSID Broadcast

☒ Yes ☐ No

Wireless

Mode

G

Channel

6

Wired

Speed

☒ Auto ☐ 100 ☐ 1000

Duplex

☒ Auto ☐ Half ☐ Full

Security Configuration

Security Settings

☐ None ☐ WEP ☒ WPA ☐ WPA2 ☐ WPA2 - Enterprise

Key or Passphrase

S3cr3t!

Reset to Default

Save

Close

Graphical user interface  
Description automatically generated  
Exhibit 3 as follows  
Access Point Name AP3

The Leader of IT Certification

visit - <https://www.certleader.com>

AP3 Configuration

https://ap3.setup.do

Basic Configuration

Access Point Name

AP3

IP Address

192.168.1.96

/

27

Gateway

192.168.1.1

SSID

CorpNet

SSID Broadcast

Yes

No

Wireless

Mode

B

Channel

9

Wired

Speed

Auto

100

1000

Duplex

Auto

Half

Full

Security Configuration

Reset to Default

Save

Close

Graphical user interface  
Description automatically generated

Security Configuration

Security Settings

None

WEP

WPA

WPA2

WPA2 - Enterprise

Key or Passphrase

S3cr3t!

Graphical user interface, text, application, chat or text message  
Description automatically generated

AP3 Configuration

https://ap3.setup.do

IP Address

192.168.1.5

/

27

Gateway

192.168.1.1

SSID

CorpNet

SSID Broadcast

Yes

No

Wireless

Mode

G

Channel

9

Wired

Speed

Auto

100

1000

Duplex

Auto

Half

Full

Security Configuration

Security Settings

None

WEP

WPA

WPA2

WPA2 - Enterprise

Key or Passphrase

S3cr3t!

Reset to Default

Save

Close

Graphical user interface  
Description automatically generated

**NEW QUESTION 115**

- (Topic 1)

A fiber link connecting two campus networks is broken. Which of the following tools should an engineer use to detect the exact break point of the fiber link?

- A. OTDR
- B. Tone generator
- C. Fusion splicer
- D. Cable tester
- E. PoE injector

**Answer:** A

**Explanation:**

To detect the exact break point of a fiber link, an engineer should use an OTDR (Optical Time Domain Reflectometer). This device sends a series of pulses into the fiber, measuring the time it takes for the pulses to reflect back, and can pinpoint the exact location of the break.

References:

? Network+ N10-007 Certification Exam Objectives, Objective 2.5: Given a scenario, troubleshoot copper cable issues.

? FS: OTDR (Optical Time Domain Reflectometer) Testing Principle and Applications

**NEW QUESTION 119**

- (Topic 1)

A technician is installing multiple UPS units in a major retail store. The technician is required to keep track of all changes to new and old equipment. Which of the following will allow the technician to record these changes?

- A. Asset tags
- B. A smart locker
- C. An access control vestibule
- D. A camera

**Answer:** A

**Explanation:**

Asset tags will allow the technician to record changes to new and old equipment when installing multiple UPS units in a major retail store. Asset tags are labels or stickers that are attached to physical assets such as computers, printers, servers, or UPS units. They usually contain information such as asset name, serial number, barcode, QR code, or RFID chip that can be scanned or read by an asset management system or software. Asset tags help track inventory, location, status, maintenance, and ownership of assets. References: <https://www.camcode.com/asset-tags/asset-tagging-guide/>

**NEW QUESTION 120**

- (Topic 1)

Which of the following connector types would have the MOST flexibility?

- A. SFP
- B. BNC
- C. LC
- D. RJ45

**Answer:** A

**Explanation:**

SFP (Small Form-factor Pluggable) is a connector type that has the most flexibility. It is a hot-swappable transceiver that can support different speeds, distances, and media types depending on the module inserted. It can be used for both copper and fiber connections and supports various protocols such as Ethernet, Fibre Channel, and SONET. References: <https://www.fs.com/what-is-sfp-transceiver-aid-11.html>

**NEW QUESTION 123**

- (Topic 2)

A network administrator is configuring a database server and would like to ensure the database engine is listening on a certain port. Which of the following commands should the administrator use to accomplish this goal?

- A. nslookup
- B. netstat -a
- C. ipconfig /a
- D. arp -a

**Answer:** B

**Explanation:**

netstat -a is a command that displays information about active TCP connections and listening ports on a system. A network administrator can use netstat -a to check if the database engine is listening on a certain port, as well as verify if there are any connections established to or from that port. References: <https://www.comptia.org/blog/what-is-netstat>

**NEW QUESTION 128**

- (Topic 2)

A network administrator is required to ensure that auditors have read-only access to the system logs, while systems administrators have read and write access to the system logs, and operators have no access to the system logs. The network administrator has configured security groups for each of these functional categories. Which of the following security capabilities will allow the network administrator to maintain these permissions with the LEAST administrative effort?

- A. Mandatory access control
- B. User-based permissions
- C. Role-based access



D. Least privilege

**Answer:** C

**Explanation:**

Role-based access is a security capability that assigns permissions to users based on their roles or functions within an organization. It allows the network administrator to maintain these permissions with the least administrative effort, as they only need to configure the security groups for each role once and then assign users to those groups. Mandatory access control is a security capability that assigns permissions based on security labels or classifications, which requires more administrative effort to maintain. User-based permissions are a security capability that assigns permissions to individual users, which is not scalable or efficient for large organizations. Least privilege is a security principle that states that users should only have the minimum level of access required to perform their tasks, which is not a security capability by itself.

**NEW QUESTION 130**

- (Topic 2)

A company requires a disaster recovery site to have equipment ready to go in the event of a disaster at its main datacenter. The company does not have the budget to mirror all the live data to the disaster recovery site. Which of the following concepts should the company select?

- A. Cold site
- B. Hot site
- C. Warm site
- D. Cloud site

**Answer:** C

**Explanation:**

A warm site is a type of disaster recovery site that has equipment ready to go in the event of a disaster at the main datacenter, but does not have live data or applications. A warm site requires some time and effort to restore the data and services from backups, but it is less expensive than a hot site that has live data and applications. A cold site is a disaster recovery site that has no equipment or data, and requires a lot of time and money to set up after a disaster. A cloud site is a disaster recovery site that uses cloud computing resources to provide data and services, but it may have issues with bandwidth, latency, security, and cost.

References: <https://www.comptia.org/blog/what-is-a-warm-site>

**NEW QUESTION 132**

- (Topic 2)

A business is using the local cable company to provide Internet access. Which of the following types of cabling will the cable company MOST likely use from the demarcation point back to the central office?

- A. Multimode
- B. Cat 5e
- C. RG-6
- D. Cat 6
- E. 100BASE-T

**Answer:** C

**Explanation:**

RG-6 is a type of coaxial cable that is commonly used by cable companies to provide Internet access from the demarcation point back to the central office. It has a thicker conductor and better shielding than RG-59, which is another type of coaxial cable. Multimode and Cat 5e are types of fiber optic and twisted pair cables respectively, which are not typically used by cable companies. Cat 6 and 100BASE-T are standards for twisted pair cables, not types of cabling.

**NEW QUESTION 136**

- (Topic 2)

Which of the following services can provide data storage, hardware options, and scalability to a third-party company that cannot afford new devices?

- A. SaaS
- B. IaaS
- C. PaaS
- D. DaaS

**Answer:** B

**Explanation:**

IaaS stands for Infrastructure as a Service, which is a cloud computing model that provides virtualized computing resources such as servers, storage, and networking over the Internet. IaaS can provide data storage, hardware options, and scalability to a third-party company that cannot afford new devices by allowing them to rent or lease the infrastructure they need from a cloud provider. The company can pay only for what they use and scale up or down as needed.

References: <https://www.comptia.org/blog/what-is-iaas>

**NEW QUESTION 141**

- (Topic 2)

Given the following output:

```
192.168.22.1      00-13-5d-00-c6-23
192.168.22.15     00-15-88-00-58-00
192.168.22.10     00-13-5d-00-c6-23
192.168.22.100    00-13-5d-00-c6-23
```

Which of the following attacks is this MOST likely an example of?



- A. ARP poisoning
- B. VLAN hopping
- C. Rogue access point
- D. Amplified DoS

**Answer:** A

**Explanation:**

The output is most likely an example of an ARP poisoning attack. ARP poisoning, also known as ARP spoofing, is a type of attack that exploits the ARP protocol to associate a malicious device's MAC address with a legitimate IP address on a local area network. This allows the attacker to intercept, modify, or redirect network traffic between two devices without their knowledge. The output shows that there are multiple entries for the same IP address (192.168.1.1) with different MAC addresses in the ARP cache of the device. This indicates that an attacker has sent fake ARP replies to trick the device into believing that its MAC address is associated with the IP address of another device (such as the default gateway). References: <https://www.cisco.com/c/en/us/about/security-center/arp-spoofing.html>

**NEW QUESTION 142**

- (Topic 2)

A network technician is reviewing an upcoming project's requirements to implement IaaS. Which of the following should the technician consider?

- A. Software installation processes
- B. Type of database to be installed
- C. Operating system maintenance
- D. Server hardware requirements

**Answer:** D

**Explanation:**

IaaS stands for Infrastructure as a Service, which is a cloud computing model that provides virtualized computing resources such as servers, storage, and networking over the Internet. When implementing IaaS, the network technician should consider the server hardware requirements, such as CPU, RAM, disk space, and network bandwidth, that are needed to run the applications and services on the cloud. The other options are not relevant to IaaS, as they are either handled by the cloud provider or by the end-user. References: <https://www.comptia.org/blog/what-is-iaas>

**NEW QUESTION 144**

- (Topic 2)

Which of the following is used to provide networking capability for VMs at Layer 2 of the OSI model?

- A. VPN
- B. VRRP
- C. vSwitch
- D. VIP

**Answer:** C

**Explanation:**

A vSwitch (virtual switch) is a software-based switch that provides networking capability for VMs (virtual machines) at Layer 2 of the OSI model. It connects the VMs to each other or to external networks using virtual NICs (network interface cards). A VPN (virtual private network) is a technology that creates a secure tunnel over a public network for remote access or site-to-site connectivity. VRRP (Virtual Router Redundancy Protocol) is a protocol that provides high availability for routers by creating a virtual router with multiple physical routers. A VIP (virtual IP) is an IP address that can be shared by multiple servers or devices for load balancing or failover purposes.

**NEW QUESTION 147**

- (Topic 2)

A technician is deploying a low-density wireless network and is contending with multiple types of building materials. Which of the following wireless frequencies would allow for the LEAST signal attenuation?

- A. 2.4GHz
- B. 5GHz
- C. 850MHz
- D. 900MHz

**Answer:** A

**Explanation:**

2.4GHz is the wireless frequency that would allow for the least signal attenuation when deploying a low-density wireless network with multiple types of building materials. Signal attenuation is the loss of signal strength or quality as it travels through a medium or over a distance. Signal attenuation can be affected by various factors such as distance, interference, reflection, refraction, diffraction, scattering, or absorption. Generally, lower frequencies have less signal attenuation than higher frequencies because they can penetrate obstacles better and travel farther. Therefore, 2.4GHz would have less signal attenuation than 5GHz, 850MHz, or 900MHz. References: <https://www.cisco.com/c/en/us/support/docs/wireless-mobility/wireless-lan-wlan/82068-omni-vs-direct.html>

**NEW QUESTION 150**

- (Topic 2)

Which of the following attacks encrypts user data and requires a proper backup implementation to recover?

- A. DDoS
- B. Phishing
- C. Ransomware
- D. MAC spoofing

**Answer:** C

**Explanation:**

Ransomware is a type of malware that encrypts user data and demands a ransom for its decryption. Ransomware can prevent users from accessing their files and applications, and cause data loss or corruption. A proper backup implementation is essential to recover from a ransomware attack, as it can help restore the encrypted data without paying the ransom or relying on the attackers' decryption key. References: <https://www.comptia.org/blog/what-is-ransomware>

**NEW QUESTION 152**

- (Topic 2)

A firewall administrator is implementing a rule that directs HTTP traffic to an internal server listening on a non-standard socket Which of the following types of rules is the administrator implementing?

- A. NAT
- B. PAT
- C. STP
- D. SNAT
- E. ARP

**Answer:** B

**Explanation:**

The firewall administrator is implementing a PAT (Port Address Translation) rule that directs HTTP traffic to an internal server listening on a non-standard socket. PAT is a type of NAT (Network Address Translation) that allows multiple devices to share a single public IP address by using different port numbers. PAT can also be used to redirect traffic from one port to another port on the same or different IP address. This can be useful for security or load balancing purposes. For example, a firewall administrator can configure a PAT rule that redirects HTTP traffic (port 80) from the public IP address of the firewall to an internal server that listens on a non-standard port (such as 8080) on its private IP address. References: <https://www.cisco.com/c/en/us/support/docs/ip/network-address-translation-nat/13772-12.html>

**NEW QUESTION 157**

- (Topic 2)

A SaaS provider has decided to leave an unpatched VM available via a public DMZ port. With which of the following concepts is this technique MOST closely associated?

- A. Insider threat
- B. War driving
- C. Evil twin
- D. Honeypot

**Answer:** D

**Explanation:**

A honeypot is a decoy system that is intentionally left vulnerable or exposed to attract attackers and divert them from the real targets. A honeypot can also be used to collect information about the attackers' techniques and motives. In the scenario, the SaaS provider has left an unpatched VM available via a public DMZ port, which could be a honeypot technique to lure attackers and monitor their activities. References: <https://www.comptia.org/blog/what-is-a-honeypot>

**NEW QUESTION 159**

- (Topic 2)

Which of the following protocol types describes secure communication on port 443?

- A. ICMP
- B. UDP
- C. TCP
- D. IP

**Answer:** C

**Explanation:**

TCP is the protocol type that describes secure communication on port 443. TCP (Transmission Control Protocol) is a connection-oriented protocol that provides reliable and ordered delivery of data packets over an IP network. TCP uses port numbers to identify different applications or services on a device. Port 443 is the default port for HTTPS (Hypertext Transfer Protocol Secure), which is an extension of HTTP that uses SSL (Secure Sockets Layer) or TLS (Transport Layer Security) encryption to protect data in transit between a web server and a web browser. References: <https://www.cisco.com/c/en/us/support/docs/ip/routing-information-protocol-rip/13788-3.html>

**NEW QUESTION 163**

- (Topic 2)

There are two managed legacy switches running that cannot be replaced or upgraded. These switches do not support cryptographic functions, but they are password protected. Which of the following should a network administrator configure to BEST prevent unauthorized access?

- A. Enable a management access list
- B. Disable access to unnecessary services.
- C. Configure a stronger password for access
- D. Disable access to remote management
- E. Use an out-of-band access method.

**Answer:** E

**Explanation:**

Using an out-of-band access method is the best way to prevent unauthorized access to the legacy switches that do not support cryptographic functions. Out-of-band access is a method of accessing a network device through a dedicated channel that is separate from the main network traffic. Out-of-band access can use physical connections such as serial console ports or dial-up modems, or logical connections such as VPNs or firewalls. Out-of-band access provides more security and reliability than in-band access, which uses the same network as the data traffic and may be vulnerable to attacks or failures. References:

<https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/fundamentals/configuration/15mt/fundamentals-15-mt-book/cf-out-band-mgmt.html>

**NEW QUESTION 165**

- (Topic 2)

A city has hired a new employee who needs to be able to work when traveling at home and at the municipal sourcing of a neighboring city that snares services. The employee is issued a laptop, and a technician needs to train the employee on the appropriate solutions for secure access to the network from all the possible locations On which of the following solutions would the technician MOST likely train the employee?

- A. Site-to-site VPNs between the two city locations and client-to-site software on the employee's laptop for all other remote access
- B. Client-to-site VPNs between the travel locations and site-to-site software on the employee's laptop for all other remote access
- C. Client-to-site VPNs between the two city locations and site-to-site software on the employee's laptop for all other remote access
- D. Site-to-site VPNs between the home and city locations and site-to-site software on the employee's laptop for all other remote access

**Answer:** A

**Explanation:**

The technician would most likely train the employee on using site-to-site VPNs between the two city locations and client-to-site software on the employee's laptop for all other remote access. A VPN (Virtual Private Network) is a technology that creates a secure and encrypted tunnel over a public network such as the Internet. It allows remote users or sites to access a private network as if they were directly connected to it. A site-to-site VPN connects two or more networks, such as branch offices or data centers, using a VPN gateway device at each site. A client-to-site VPN connects individual users, such as mobile workers or telecommuters, using a VPN client software on their devices. In this scenario, the employee needs to access the network from different locations, such as home, travel, or another city. Therefore, the technician would train the employee on how to use site-to-site VPNs to connect to the network from another city location that shares services, and how to use client-to-site software to connect to the network from home or travel locations. References: <https://www.cisco.com/c/en/us/support/docs/security-vpn/ipsec-negotiation-ike-protocols/14106-how-vpn-works.html>

**NEW QUESTION 168**

- (Topic 2)

The following instructions were published about the proper network configuration for a videoconferencing device:

"Configure a valid static RFC1918 address for your network. Check the option to use a connection over NAT."

Which of the following is a valid IP address configuration for the device?

- A. FE80::1
- B. 100.64.0.1
- C. 169.254.1.2
- D. 172.19.0.2
- E. 224.0.0.12

**Answer:** D

**Explanation:**

172.19.0.2 is a valid IP address configuration for the device that uses a static RFC1918 address for the network and allows for a connection over NAT (Network Address Translation). RFC1918 addresses are private IP addresses that are not routable on the public Internet and are used for internal networks. The RFC1918 address ranges are 10.0.0.0/8, 172.16.0.0/12, and 192.168.0.0/16. NAT is a technique that translates private IP addresses to public IP addresses when communicating with external networks, such as the Internet. FE80::1 is an IPv6 link-local address that is not a static RFC1918 address and does not allow for a connection over NAT. 100.64.0.1 is an IPv4 address that belongs to the shared address space range (100.64.0.0/10) that is used for carrier-grade NAT (CGN) between service providers and subscribers, which is not a static RFC1918 address and does not allow for a connection over NAT. 169.254.1.2 is an IPv4 link-local address that is automatically assigned by a device when it cannot obtain an IP address from a DHCP server or manual configuration, which is not a static RFC1918 address and does not allow for a connection over NAT. 224.0.0.12 is an IPv4 multicast address that is used for VRRP (Virtual Router Redundancy Protocol), which is not a static RFC1918 address and does not allow for a connection over NAT.

**NEW QUESTION 172**

- (Topic 2)

A network technician needs to correlate security events to analyze a suspected intrusion. Which of the following should the technician use?

- A. SNMP
- B. Log review
- C. Vulnerability scanning
- D. SIEM

**Answer:** D

**Explanation:**

SIEM stands for Security Information and Event Management, which is a tool that collects, analyzes, and correlates data from various network devices and sources to provide alerts and reports on security incidents and events. A network technician can use SIEM to correlate security events to analyze a suspected intrusion, as SIEM can help identify the source, target, method, and impact of an attack, as well as provide recommendations for remediation. References: <https://www.comptia.org/blog/what-is-siem>

**NEW QUESTION 177**

- (Topic 2)

An IT technician suspects a break in one of the uplinks that provides connectivity to the core switch. Which of the following command-line tools should the technician use to determine where the incident is occurring?

- A. nslookup
- B. show config
- C. netstat
- D. show interface
- E. show counters

**Answer:** D

**Explanation:**

show interface is a command-line tool that displays information about the status, configuration, and statistics of an interface on a network device. A technician can use show interface to determine where the incident is occurring in a network by checking the uplink status, speed, duplex mode, errors, collisions, and other parameters of each interface. References: <https://www.comptia.org/blog/what-is-show-interface>

**NEW QUESTION 180**

- (Topic 2)

A network engineer is designing a new secure wireless network. The engineer has been given the following requirements:

\* 1 Must not use plaintext passwords

\* 2 Must be certificate based

\* 3. Must be vendor neutral

Which of the following methods should the engineer select?

A. TWP-RC4

B. CCMP-AES

C. EAP-TLS

D. WPA2

**Answer:** C

**Explanation:**

EAP-TLS is the method that should be selected to meet the requirements for designing a new secure wireless network. EAP-TLS (Extensible Authentication Protocol - Transport Layer Security) is an authentication protocol that uses X.509 digital certificates for both clients and servers. It provides strong security and mutual authentication by using TLS encryption and public key cryptography. It does not use plaintext passwords or shared secrets that can be compromised or guessed. It is also an open standard that is vendor neutral and supported by most wireless devices<sup>1</sup>. References: <https://www.securew2.com/blog/what-is-eap-tls>  
1

**NEW QUESTION 184**

- (Topic 2)

A network technician is investigating an issue with handheld devices in a warehouse. Devices have not been connecting to the nearest APs, but they have been connecting to an AP on the far side of the warehouse. Which of the following is the MOST likely cause of this issue?

A. The nearest APs are configured for 802.11g.

B. An incorrect channel assignment is on the nearest APs.

C. The power level is too high for the AP on the far side.

D. Interference exists around the AP on the far side.

**Answer:** C

**Explanation:**

The power level is a setting that determines how strong the wireless signal is from an access point (AP). If the power level is too high for an AP on the far side of a warehouse, it can cause interference and overlap with other APs on the same channel or frequency. This can result in handheld devices not connecting to the nearest APs, but connecting to the AP on the far side instead. A technician should adjust the power level of the AP on the far side to reduce interference and improve connectivity. References: <https://www.comptia.org/blog/what-is-power-level>

**NEW QUESTION 187**

- (Topic 2)

A network administrator has been directed to present the network alerts from the past week to the company's executive staff. Which of the following will provide the BEST collection and presentation of this data?

A. A port scan printout

B. A consolidated report of various network devices

C. A report from the SIEM tool

D. A report from a vulnerability scan done yesterday

**Answer:** C

**Explanation:**

SIEM stands for Security Information and Event Management, which is a tool that collects, analyzes, and correlates data from various network devices and sources to provide alerts and reports on security incidents and events. A report from the SIEM tool can provide a comprehensive overview of the network alerts from the past week to the executive staff, highlighting any potential threats, vulnerabilities, or anomalies. References: <https://www.comptia.org/blog/what-is-siem>

**NEW QUESTION 190**

- (Topic 2)

A network requirement calls for segmenting departments into different networks. The campus network is set up with users of each department in multiple buildings. Which of the following should be configured to keep the design simple and efficient?

A. MDIX

B. Jumbo frames

C. Port tagging

D. Flow control

**Answer:** C

**Explanation:**

Port tagging is a technique that involves adding a tag or identifier to the frames or packets that belong to a certain VLAN. A VLAN is a logical segment of a network that isolates traffic between different groups of devices. Port tagging allows devices on different physical ports or switches to communicate with each other as if they were on the same port or switch. Port tagging can help keep the design simple and efficient by reducing the number of physical ports and switches



needed to segment departments into different networks. References: <https://www.comptia.org/blog/what-is-port-tagging>

**NEW QUESTION 195**

- (Topic 2)

A lab environment hosts Internet-facing web servers and other experimental machines, which technicians use for various tasks. A technician installs software on one of the web servers to allow communication to the company's file server, but it is unable to connect to it. Other machines in the building are able to retrieve files from the file server. Which of the following is the MOST likely reason the web server cannot retrieve the files, and what should be done to resolve the problem?

- A. The lab environment's IDS is blocking the network traffic. The technician can whitelist the new application in the IDS.
- B. The lab environment is located in the DMZ, and traffic to the LAN zone is denied by default.
- C. The technician can move the computer to another zone or request an exception from the administrator.
- D. The lab environment has lost connectivity to the company router, and the switch needs to be rebooted.
- E. The technician can get the key to the wiring closet and manually restart the switch.
- F. The lab environment is currently set up with hubs instead of switches, and the requests are getting bounced back. The technician can submit a request for upgraded equipment to management.

**Answer:** B

**Explanation:**

The lab environment is located in the DMZ, and traffic to the LAN zone is denied by default. This is the most likely reason why the web server cannot retrieve files from the file server, and the technician can either move the computer to another zone or request an exception from the administrator to resolve the problem. A DMZ (Demilitarized Zone) is a network segment that separates the internal network (LAN) from the external network (Internet). It usually hosts public-facing servers such as web servers, email servers, or FTP servers that need to be accessed by both internal and external users. A firewall is used to control the traffic between the DMZ and the LAN zones, and usually denies traffic from the DMZ to the LAN by default for security reasons. Therefore, if a web server in the DMZ needs to communicate with a file server in the LAN, it would need a special rule or permission from the firewall administrator. References: <https://www.cisco.com/c/en/us/support/docs/ip/access-lists/13608-21.html>

**NEW QUESTION 197**

- (Topic 2)

A network administrator is downloading a large patch that will be uploaded to several enterprise switches simultaneously during the day's upgrade cycle. Which of the following should the administrator do to help ensure the upgrade process will be less likely to cause problems with the switches?

- A. Confirm the patch's MD5 hash prior to the upgrade.
- B. Schedule the switches to reboot after an appropriate amount of time.
- C. Download each switch's current configuration before the upgrade.
- D. Utilize FTP rather than TFTP to upload the patch.

**Answer:** A

**Explanation:**

The network administrator should confirm the patch's MD5 hash prior to the upgrade to help ensure the upgrade process will be less likely to cause problems with the switches. MD5 (Message Digest 5) is a cryptographic hash function that produces a 128-bit hash value for any given input. It can be used to verify the integrity and authenticity of a file by comparing its hash value with a known or expected value. If the hash values match, it means that the file has not been corrupted or tampered with during transmission or storage. If the hash values do not match, it means that the file may be damaged or malicious and should not be used for the upgrade. References: <https://www.cisco.com/c/en/us/support/docs/security/vpn/secure-shell-ssh/15292-scp.html>

**NEW QUESTION 198**

- (Topic 2)

A user is having difficulty with video conferencing and is looking for assistance. Which of the following would BEST improve performance?

- A. Packet shaping
- B. Quality of service
- C. Port mirroring
- D. Load balancing

**Answer:** B

**Explanation:**

Quality of service (QoS) is a mechanism that prioritizes network traffic based on different criteria, such as application type, source and destination address, port number, etc., and allocates bandwidth and resources accordingly. QoS would best improve performance for video conferencing, as it would ensure that video traffic gets higher priority and lower latency than other types of traffic on the network. Packet shaping is a technique that controls the rate or volume of network traffic by delaying or dropping packets that exceed certain thresholds or violate certain policies, which may not improve performance for video conferencing if it causes packet loss or jitter. Port mirroring is a technique that copies traffic from one port to another port on a switch for monitoring or analysis purposes, which does not improve performance for video conferencing at all. Load balancing is a technique that distributes network traffic across multiple servers or devices for improved availability and scalability, which does not

**NEW QUESTION 200**

- (Topic 2)

A client moving into a new office wants the IP network set up to accommodate 412 network-connected devices that are all on the same subnet. The subnet needs to be as small as possible. Which of the following subnet masks should be used to achieve the required result?

- A. 255.255.0.0
- B. 255.255.252.0
- C. 255.255.254.0
- D. 255.255.255.0

**Answer:** B

**Explanation:**



255.255.252.0 is a subnet mask that allows for 1022 network-connected devices on the same subnet, which is the smallest subnet that can accommodate 412 devices. The subnet mask determines how many bits are used for the network portion and how many bits are used for the host portion of an IP address. A smaller subnet mask means more bits are used for the network portion and less bits are used for the host portion, which reduces the number of available hosts on the subnet. 255.255.0.0 allows for 65534 hosts on the same subnet, which is too large. 255.255.254.0 allows for 510 hosts on the same subnet, which is also too large. 255.255.255.0 allows for 254 hosts on the same subnet, which is too small.

**NEW QUESTION 202**

- (Topic 2)

A Chief Information Officer (CIO) wants to improve the availability of a company's SQL database. Which of the following technologies should be utilized to achieve maximum availability?

- A. Clustering
- B. Port aggregation
- C. NIC teaming
- D. Snapshots

**Answer:** A

**Explanation:**

Clustering is a technique that involves grouping multiple servers or instances together to provide high availability and fault tolerance for a database. Clustering can help improve the availability of a SQL database by allowing automatic failover and load balancing between the cluster nodes. If one node fails or becomes overloaded, another node can take over the database operations without disrupting the service. References: <https://www.educba.com/sql-cluster/>

**NEW QUESTION 203**

- (Topic 2)

A network administrator needs to implement an HDMI over IP solution. Which of the following will the network administrator MOST likely use to ensure smooth video delivery?

- A. Link aggregation control
- B. Port tagging
- C. Jumbo frames
- D. Media access control

**Answer:** C

**Explanation:**

Giants are packets that exceed the configured MTU (Maximum Transmission Unit) of a switchport or interface, which causes them to be dropped or fragmented by the switch or router. The MTU is the maximum size of a packet that can be transmitted without fragmentation on a given medium or protocol. Giants can indicate misconfiguration or mismatch of MTU values between devices or interfaces on a network, which can cause performance issues or errors. CRC errors are errors that occur when the cyclic redundancy check (CRC) value of a packet does not match the calculated CRC value at the destination, which indicates corruption or alteration of data during transmission due to noise, interference, faulty cabling, etc., but not necessarily exceeding MTU values. Runts are packets that are smaller than the minimum size allowed by the medium or protocol, which causes them to be dropped or ignored by the switch or router. Flooding is a technique where a switch sends packets to all ports except the source port when it does not have an entry for the destination MAC address in its MAC address table, which can cause congestion or broadcast storms on a network.

**NEW QUESTION 207**

- (Topic 2)

A technician is troubleshooting a workstation's network connectivity and wants to confirm which switchport corresponds to the wall jack the PC is using. Which of the following concepts would BEST help the technician?

- A. Consistent labeling
- B. Change management
- C. Standard work instructions
- D. Inventory management
- E. Network baseline

**Answer:** A

**Explanation:**

Consistent labeling would be the concept that would best help the technician to confirm which switchport corresponds to the wall jack the PC is using. Consistent labeling is a practice of using standardized and descriptive labels for network devices, ports, cables, jacks, and other components. It can help with identifying, locating, and troubleshooting network issues. For example, a technician can use consistent labeling to trace a cable from a PC to a wall jack, and then from a patch panel to a switchport. References: [https://www.cisco.com/c/en/us/td/docs/solutions/Enterprise/Data\\_Center/DC\\_Infra2\\_5/DCInfra\\_6.html](https://www.cisco.com/c/en/us/td/docs/solutions/Enterprise/Data_Center/DC_Infra2_5/DCInfra_6.html)

**NEW QUESTION 209**

- (Topic 2)

A network administrator decided to use SLAAC in an extensive IPv6 deployment to alleviate IP address management. The devices were properly connected into the LAN but autoconfiguration of the IP address did not occur as expected. Which of the following should the network administrator verify?

- A. The network gateway is configured to send router advertisements.
- B. A DHCP server is present on the same broadcast domain as the clients.
- C. The devices support dual stack on the network layer.
- D. The local gateway supports anycast routing.

**Answer:** A

**Explanation:**

SLAAC (Stateless Address Autoconfiguration) is a method for IPv6 devices to automatically configure their IP addresses based on the network prefix advertised by a router. The router sends periodic router advertisements (RAs) that contain the network prefix and other parameters for the devices to use. If the network

gateway is not configured to send RAs, then SLAAC will not work. A DHCP server is not needed for SLAAC, as the devices generate their own addresses without relying on a server. Dual stack and anycast routing are not related to SLAAC.

**NEW QUESTION 213**

- (Topic 2)

A network technician is configuring a new firewall for a company with the necessary access requirements to be allowed through the firewall. Which of the following would normally be applied as the LAST rule in the firewall?

- A. Secure SNMP
- B. Port security
- C. Implicit deny
- D. DHCP snooping

**Answer:** C

**Explanation:**

Implicit deny is a firewall rule that blocks all traffic that is not explicitly allowed by other rules. Implicit deny is usually applied as the last rule in the firewall to ensure that only the necessary access requirements are allowed through the firewall and that any unwanted or malicious traffic is rejected. Implicit deny can also provide a default security policy and a baseline for auditing and logging purposes.

Secure SNMP is a protocol that allows network devices to send event messages to a centralized server or console for logging and analysis. Secure SNMP can be used to monitor and manage the status, performance, and configuration of network devices. Secure SNMP can also help to detect and respond to potential problems or faults on the network. However, secure SNMP is not a firewall rule; it is a network management protocol.

Port security is a feature that allows a switch to restrict the devices that can connect to a specific port based on their MAC addresses. Port security can help to prevent unauthorized access, spoofing, or MAC flooding attacks on the switch. However, port security is not a firewall rule; it is a switch feature.

DHCP snooping is a feature that allows a switch to filter DHCP messages and prevent rogue DHCP servers from assigning IP addresses to devices on the network. DHCP snooping can help to prevent IP address conflicts, spoofing, or denial-of-service attacks on the network. However, DHCP snooping is not a firewall rule; it is a switch feature.

**NEW QUESTION 215**

- (Topic 2)

A network technician is investigating an IP phone that does not register in the VoIP system Although it received an IP address, it did not receive the necessary DHCP options The information that is needed for the registration is distributed by the DHCP scope All other IP phones are working properly. Which of the following does the technician need to verify?

- A. VLAN mismatch
- B. Transceiver mismatch
- C. Latency
- D. DHCP exhaustion

**Answer:** A

**Explanation:**

A VLAN mismatch is the most likely reason why an IP phone does not receive the necessary DHCP options for registration. A VLAN mismatch occurs when a device is connected to a switch port that belongs to a different VLAN than the device's intended VLAN. This can cause communication problems or prevent access to network resources. For example, if an IP phone is connected to a switch port that belongs to the data VLAN instead of the voice VLAN, it may not receive the DHCP options that contain information such as the TFTP server address, the NTP server address, or the default gateway address for the voice VLAN. These DHCP options are essential for the IP phone to register with the VoIP system and function properly. References:

<https://www.cisco.com/c/en/us/support/docs/voice-unified-communications/unified-communications-manager-callmanager/13979-dhcp-option-150-00.html>

**NEW QUESTION 218**

- (Topic 2)

A local firm has hired a consulting company to clean up its IT infrastructure. The consulting company notices remote printing is accomplished by port forwarding via publicly accessible IPs through the firm's firewall Which of the following would be the MOST appropriate way to enable secure remote printing?

- A. SSH
- B. VPN
- C. Telnet
- D. SSL

**Answer:** B

**Explanation:**

VPN (Virtual Private Network) is the most appropriate way to enable secure remote printing. VPN is a technology that creates a secure and encrypted tunnel over a public network such as the Internet. It allows remote users or sites to access a private network as if they were directly connected to it. VPN can be used for various purposes such as accessing corporate resources, bypassing geo-restrictions, or enhancing privacy and security. VPN can also be used for remote printing by allowing users to connect to a printer on the private network and send print jobs securely over the VPN tunnel. References:

<https://www.cisco.com/c/en/us/support/docs/security-vpn/ipsec-negotiation-ike-protocols/14106-how-vpn-works.html>

**NEW QUESTION 221**

- (Topic 2)

Which of the following OSI model layers is where conversations between applications are established, coordinated, and terminated?

- A. Session
- B. Physical
- C. Presentation
- D. Data link

**Answer:** A

**Explanation:**

Reference: <https://www.techtarget.com/searchnetworking/definition/OSI#:~:text=The%20session%20layer,and%20terminates%20conversations%20between%20applications.>

The session layer is where conversations between applications are established, coordinated, and terminated. It is responsible for creating, maintaining, and ending sessions between different devices or processes. The physical layer deals with the transmission of bits over a medium. The presentation layer formats and translates data for different applications. The data link layer provides reliable and error-free delivery of frames within a network.

**NEW QUESTION 226**

- (Topic 2)

An IDS was installed behind the edge firewall after a network was breached. The network was then breached again even though the IDS logged the attack. Which of the following should be used in place of these devices to prevent future attacks?

- A. A network tap
- B. A proxy server
- C. A UTM appliance
- D. A content filter

**Answer:** C

**Explanation:**

A UTM appliance stands for Unified Threat Management appliance, which is a device that combines multiple security functions into one solution. A UTM appliance can provide firewall, IDS/IPS, antivirus, VPN, web filtering, and other security features. A network technician can use a UTM appliance in place of an edge firewall and an IDS to prevent future attacks, as a UTM appliance can block malicious traffic and detect and respond to intrusions more effectively. References: <https://www.comptia.org/blog/what-is-utm>

**NEW QUESTION 229**

- (Topic 2)

A systems administrator is running a VoIP network and is experiencing jitter and high latency. Which of the following would BEST help the administrator determine the cause of these issues?

- A. Enabling RADIUS on the network
- B. Configuring SNMP traps on the network
- C. Implementing LDAP on the network
- D. Establishing NTP on the network

**Answer:** B

**Explanation:**

SNMP (Simple Network Management Protocol) is a protocol that allows network devices to communicate with a network management system (NMS) for monitoring and configuration purposes. SNMP traps are unsolicited messages sent by network devices to the NMS when certain events or conditions occur, such as errors, failures, or thresholds. Configuring SNMP traps on the network would best help the administrator determine the cause of jitter and high latency on a VoIP network, as they would provide real-time alerts and information about the network performance and status. Enabling RADIUS on the network is not relevant to troubleshooting VoIP issues, as RADIUS is a protocol that provides authentication, authorization, and accounting services for network access. Implementing LDAP on the network is also not relevant to troubleshooting VoIP issues, as LDAP is a protocol that provides directory services for storing and querying information about users, groups, devices, etc. Establishing NTP on the network is not directly related to troubleshooting VoIP issues, as NTP is a protocol that synchronizes the clocks of network devices.

**NEW QUESTION 232**

- (Topic 2)

Which of the following security devices would be BEST to use to provide mechanical access control to the MDF/IDF?

- A. A smart card
- B. A key fob
- C. An employee badge
- D. A door lock

**Answer:** D

**Explanation:**

A door lock would be the best security device to use to provide mechanical access control to the MDF/IDF. A door lock is a device that prevents unauthorized access to a physical area by requiring a key, a code, a card, a biometric scan, or a combination of these factors to open it. A door lock can provide mechanical access control to the MDF/IDF, which are rooms that house network equipment such as switches, routers, servers, or patch panels. A door lock can prevent unauthorized persons from tampering with or stealing the network equipment or data. References:

[https://www.cisco.com/c/en/us/td/docs/solutions/Enterprise/Data\\_Center/DC\\_Infra2\\_5/DCInfra\\_6.html](https://www.cisco.com/c/en/us/td/docs/solutions/Enterprise/Data_Center/DC_Infra2_5/DCInfra_6.html)

**NEW QUESTION 234**

- (Topic 2)

A user recently made changes to a PC that caused it to be unable to access websites by both FQDN and IP. Local resources, such as the file server remain accessible. Which of the following settings did the user MOST likely misconfigure?

- A. Static IP
- B. Default gateway
- C. DNS entries
- D. Local host file

**Answer:** B

**Explanation:**

The default gateway is the setting that the user most likely misconfigured on the PC that caused it to be unable to access websites by both FQDN and IP. The

default gateway is a device, usually a router or a firewall, that connects a local network to other networks such as the Internet. It acts as an intermediary between devices on different networks and forwards packets based on their destination IP addresses. If the default gateway is not configured correctly on a PC, it will not be able to communicate with devices outside its local network, such as web servers or DNS servers. References: <https://www.cisco.com/c/en/us/support/docs/ip/routing-information-protocol-rip/16448-default-gateway.html>

**NEW QUESTION 235**

- (Topic 2)

A network technician is investigating an issue with a desktop that is not connecting to the network. The desktop was connecting successfully the previous day, and no changes were made to the environment. The technician locates the switchport where the device is connected and observes the LED status light on the switchport is not lit even though the desktop is turned on Other devices that are plugged into the switch are connecting to the network successfully Which of the following is MOST likely the cause of the desktop not connecting?

- A. Transceiver mismatch
- B. VLAN mismatch
- C. Port security
- D. Damaged cable
- E. Duplex mismatch

**Answer:** D

**Explanation:**

A damaged cable is most likely the cause of the desktop not connecting to the network. A damaged cable can cause physical layer issues such as loss of signal, attenuation, interference, or crosstalk. These issues can prevent the desktop from establishing a link with the switch and result in the LED status light on the switchport being off. Other possible causes of physical layer issues are faulty connectors, ports, or transceivers. References: <https://www.cisco.com/c/en/us/support/docs/lan-switching/ethernet/14119-37.html>

**NEW QUESTION 236**

- (Topic 2)

Two remote offices need to be connected securely over an untrustworthy MAN. Each office needs to access network shares at the other site. Which of the following will BEST provide this functionality?

- A. Client-to-site VPN
- B. Third-party VPN service
- C. Site-to-site VPN
- D. Split-tunnel VPN

**Answer:** C

**Explanation:**

A site-to-site VPN is a type of VPN that connects two or more remote offices securely over an untrustworthy network, such as the Internet. A site-to-site VPN allows each office to access network shares and resources at the other site, as if they were on the same local network. A site-to-site VPN encrypts and tunnels the traffic between the offices, ensuring privacy and integrity of the data. References: <https://www.comptia.org/blog/what-is-a-site-to-site-vpn>

**NEW QUESTION 238**

- (Topic 2)

A network administrator wants to analyze attacks directed toward the company's network. Which of the following must the network administrator implement to assist in this goal?

- A. A honeypot
- B. Network segmentation
- C. Antivirus
- D. A screened subnet

**Answer:** A

**Explanation:**

A honeypot is a decoy system that is intentionally left vulnerable or exposed to attract attackers and divert them from the real targets. A honeypot can also be used to collect information about the attackers' techniques and motives. A network administrator can implement a honeypot to analyze attacks directed toward the company's network, as a honeypot can help identify the source, target, method, and impact of an attack, as well as provide recommendations for remediation. References: <https://www.comptia.org/blog/what-is-a-honeypot>

**NEW QUESTION 240**

- (Topic 2)

An ARP request is broadcasted and sends the following request. "Who is 192.168.1.200? Tell 192.168.1.55"

At which of the following layers of the OSI model does this request operate?

- A. Application
- B. Data link
- C. Transport
- D. Network
- E. Session

**Answer:** B

**Explanation:**

An ARP request operates at the data link layer of the OSI model. ARP (Address Resolution Protocol) is a protocol that maps IP addresses to MAC addresses on a local area network. It allows devices to communicate with each other without knowing their MAC addresses beforehand. ARP operates at the data link layer (layer 2) of the OSI model, which is responsible for framing and addressing data packets on a physical medium. References:



<https://www.cisco.com/c/en/us/support/docs/ip/routing-information-protocol-rip/13788-3.html>

**NEW QUESTION 245**

- (Topic 2)

A corporation has a critical system that would cause unrecoverable damage to the brand if it was taken offline. Which of the following disaster recovery solutions should the corporation implement?

- A. Full backups
- B. Load balancing
- C. Hot site
- D. Snapshots

**Answer: C**

**Explanation:**

A hot site is the disaster recovery solution that the corporation should implement for its critical system that would cause unrecoverable damage to the brand if it was taken offline. A hot site is a fully operational backup site that can take over the primary site's functions in case of a disaster or disruption. A hot site has all the necessary hardware, software, data, network connections, and personnel to resume normal operations with minimal downtime. A hot site is suitable for systems that require high availability and cannot afford any data loss or interruption. References: <https://www.enterprisestorageforum.com/management/disaster-recovery-site/> 1

**NEW QUESTION 249**

- (Topic 2)

A network administrator is talking to different vendors about acquiring technology to support a new project for a large company. Which of the following documents will MOST likely need to be signed before information about the project is shared?

- A. BYOD policy
- B. NDA
- C. SLA
- D. MOU

**Answer: B**

**Explanation:**

NDA stands for Non-Disclosure Agreement, which is a legal contract between two or more parties that outlines confidential material, knowledge, or information that the parties wish to share with one another for certain purposes, but wish to restrict access to by others. A network administrator may need to sign an NDA before sharing information about a new project with different vendors, as the project may involve sensitive or proprietary data that the company wants to protect from competitors or unauthorized use. References: <https://www.adobe.com/sign/esignature-resources/sign-nda.html>

**NEW QUESTION 252**

- (Topic 2)

A network administrator wants to improve the security of the management console on the company's switches and ensure configuration changes made can be correlated to the administrator who conformed them Which of the following should the network administrator implement?

- A. Port security
- B. Local authentication
- C. TACACS+
- D. Access control list

**Answer: C**

**Explanation:**

TACACS+ is a protocol that provides centralized authentication, authorization, and accounting (AAA) for network devices and users. TACACS+ can help improve the security of the management console on the company's switches by verifying the identity and credentials of the administrators, enforcing granular access policies and permissions, and logging the configuration changes made by each administrator. This way, the network administrator can ensure only authorized and authenticated users can access and modify the switch settings, and also track and correlate the changes made by each user. References: <https://www.comptia.org/blog/what-is-tacacs>

**NEW QUESTION 257**

- (Topic 2)

A technician is troubleshooting a previously encountered issue. Which of the following should the technician reference to find what solution was implemented to resolve the issue?

- A. Standard operating procedures
- B. Configuration baseline documents
- C. Work instructions
- D. Change management documentation

**Answer: D**

**Explanation:**

Change management documentation is a record of the changes that have been made to a system or process, including the reason, date, time, and impact of each change. A technician can reference this documentation to find what solution was implemented to resolve a previously encountered issue, as well as any potential side effects or dependencies of the change. References: <https://www.comptia.org/blog/what-is-change-management>

**NEW QUESTION 261**

- (Topic 2)

A technician wants to install a WAP in the center of a room that provides service in a radius surrounding a radio. Which of the following antenna types should the

AP utilize?

- A. Omni
- B. Directional
- C. Yagi
- D. Parabolic

**Answer:** A

**Explanation:**

An omni antenna should be used by the AP to provide service in a radius surrounding a radio. An omni antenna is a type of antenna that has a 360-degree horizontal radiation pattern. It can provide wireless coverage in all directions from the antenna with varying degrees of vertical coverage. It is suitable for indoor environments where users are located around the AP1. References: <https://www.cisco.com/c/en/us/support/docs/wireless-mobility/wireless-lan-wlan/82068-omni-vs-direct.html> 1

**NEW QUESTION 262**

- (Topic 2)

During the security audit of a financial firm the Chief Executive Officer (CEO) questions why there are three employees who perform very distinct functions on the server. There is an administrator for creating users another for assigning the users to groups and a third who is the only administrator to perform file rights assignment Which of the following mitigation techniques is being applied'

- A. Privileged user accounts
- B. Role separation
- C. Container administration
- D. Job rotation

**Answer:** B

**Explanation:**

Role separation is a security principle that involves dividing the tasks and privileges for a specific business process among multiple users. This reduces the risk of fraud and errors, as no one user has complete control over the process. In the scenario, there are three employees who perform very distinct functions on the server, which is an example of role separation. References: <https://hyperproof.io/resource/segregation-of-duties/>

**NEW QUESTION 264**

- (Topic 3)

A security administrator is trying to prevent incorrect IP addresses from being assigned to clients on the network. Which of the following would MOST likely prevent this and allow the network to continue to operate?

- A. Configuring DHCP snooping on the switch
- B. Preventing broadcast messages leaving the client network
- C. Blocking ports 67/68 on the client network
- D. Enabling port security on access ports

**Answer:** A

**Explanation:**

To prevent incorrect IP addresses from being assigned to clients on the network and allow the network to continue to operate, the security administrator should consider configuring DHCP (Dynamic Host Configuration Protocol) snooping on the switch. DHCP snooping is a security feature that is used to prevent unauthorized DHCP servers from operating on a network. It works by allowing the switch to monitor and validate DHCP traffic on the network, ensuring that only legitimate DHCP messages are forwarded to clients. This can help to prevent incorrect IP addresses from being assigned to clients, as it ensures that only authorized DHCP servers are able to provide IP addresses to clients on the network.

**NEW QUESTION 268**

- (Topic 3)

A network technician is configuring a wireless access point and wants to only allow company-owned devices to associate with the network. The access point uses PSKs, and a network authentication system does not exist on the network. Which of the following should the technician implement?

- A. Captive portal
- B. Guest network isolation
- C. MAC filtering
- D. Geofencing

**Answer:** C

**Explanation:**

MAC filtering is a method of allowing only company-owned devices to associate with the network by using their MAC addresses as identifiers. A MAC address is a unique identifier assigned to each network interface card (NIC) by the manufacturer. MAC filtering can be configured on the wireless access point to allow or deny access based on the MAC address of the device. This way, only devices with known MAC addresses can connect to the network. References: <https://www.comptia.org/training/books/network-n10-008-study-guide> (page 323)

**NEW QUESTION 269**

- (Topic 3)

A WAN technician reviews activity and identifies newly installed hardware that is causing outages over an eight-hour period. Which of the following should be considered FIRST?

- A. Network performance baselines
- B. VLAN assignments
- C. Routing table

D. Device configuration review

**Answer:** D

**Explanation:**

The most likely cause of outages due to newly installed hardware is a misconfiguration of the device settings. Therefore, the first step should be to review the device configuration and check for any errors or inconsistencies that might affect the WAN connectivity. References: Network+ Study Guide Objective 2.1: Explain the importance of network documentation.

**NEW QUESTION 273**

- (Topic 3)

A customer needs to distribute Ethernet to multiple computers in an office. The customer would like to use non-proprietary standards. Which of the following blocks does the technician need to install?

- A. 110
- B. 66
- C. Bix
- D. Krone

**Answer:** A

**Explanation:**

A 110 block is a type of punch-down block that is used to distribute Ethernet to multiple computers in an office. A punch-down block is a device that connects one group of wires to another group of wires by using a special tool that pushes the wires into slots on the block. A 110 block is a non-proprietary standard that supports up to Category 6 cabling and can be used for voice or data applications. References: <https://www.comptia.org/training/books/network-n10-008-study-guide> (page 64)

**NEW QUESTION 274**

- (Topic 3)

A technician completed troubleshooting and was able to fix an issue. Which of the following is the BEST method the technician can use to pass along the exact steps other technicians should follow in case the issue arises again?

- A. Use change management to build a database
- B. Send an email stating that the issue is resolved.
- C. Document the lessons learned
- D. Close the ticket and inform the users.

**Answer:** C

**Explanation:**

Documenting the lessons learned is the best method for passing along the exact steps other technicians should follow in case the issue arises again. Lessons learned are the knowledge and experience gained from completing a project or solving a problem. Documenting the lessons learned helps to capture the best practices, challenges, solutions, and recommendations for future reference and improvement. Documenting the lessons learned can also help to update the knowledge base, standard operating procedures, or policies related to the issue. References: [CompTIA Network+ Certification Exam Objectives], Lessons Learned: Definition & Examples for Project Managers

**NEW QUESTION 277**

- (Topic 3)

Which of the following describes traffic going in and out of a data center from the internet?

- A. Demarcation point
- B. North-South
- C. Fibre Channel
- D. Spine and leaf

**Answer:** B

**NEW QUESTION 278**

- (Topic 3)

A malicious user is using special software to perform an on-path attack. Which of the following best practices should be configured to mitigate this threat?

- A. Dynamic ARP inspection
- B. Role-based access
- C. Control plane policing
- D. MAC filtering

**Answer:** A

**NEW QUESTION 279**

- (Topic 3)

A network administrator is working to configure a new device to provide Layer 2 connectivity to various endpoints including several WAPs. Which of the following devices will the administrator MOST likely configure?

- A. WLAN controller
- B. Cable modem
- C. Load balancer
- D. Switch
- E. Hub

**Answer:** D

**Explanation:**

A switch is a device that provides Layer 2 connectivity to various endpoints by forwarding frames based on MAC addresses. A switch can also connect to several WAPs (wireless access points) to provide wireless connectivity to wireless devices.

**NEW QUESTION 280**

- (Topic 3)

Which of the following best describe the functions of Layer 2 of the OSI model? (Select two).

- A. Local addressing
- B. Error preventing
- C. Logical addressing
- D. Error detecting
- E. Port addressing
- F. Error correcting

**Answer:** AD

**Explanation:**

Layer 2 of the OSI model, also known as the data link layer, is responsible for physical addressing and error detecting. Physical addressing refers to the use of MAC addresses to identify and locate devices on a network segment. Error detecting refers to the use of techniques such as checksums and CRCs to identify and correct errors in the data frames.

References:

? OSI Model | Computer Networking | CompTIA1

**NEW QUESTION 285**

- (Topic 3)

A technician received a report that some users in a large, 30-floor building are having intermittent connectivity issues. Users on each floor have stable connectivity, but do not have connectivity to other floors. Which of the following devices is MOST likely causing the issue?

- A. User devices
- B. Edge devices
- C. Access switch
- D. Core switch

**Answer:** D

**Explanation:**

A core switch is the most likely device causing the issue where users on each floor have stable connectivity, but do not have connectivity to other floors. A core switch is a high-performance switch that connects multiple access switches in a network. An access switch is a switch that connects end devices, such as computers and printers, to the network. A core switch acts as the backbone of the network, providing interconnection and routing between different subnets or VLANs. If the core switch is malfunctioning or misconfigured, it can prevent communication between different segments of the network, resulting in intermittent connectivity issues. References: [CompTIA Network+ Certification Exam Objectives], Core Switch vs Access Switch: What Are the Differences?

**NEW QUESTION 288**

- (Topic 3)

A network technician needs to ensure the company's external mail server can pass reverse lookup checks. Which of the following records would the technician MOST likely configure? (Choose Correct option and give explanation directly from CompTIA Network+ Study guide or documents)

- A. PTR
- B. AAAA
- C. SPF
- D. CNAME

**Answer:** A

**Explanation:**

A PTR (Pointer) record is used to map an IP address to a domain name, which is necessary for reverse lookup checks. Reverse lookup checks are performed by external mail servers to verify the identity of the sender of the email. By configuring a PTR record, the network technician can ensure that the company's external mail server can pass these checks. According to the CompTIA Network+ Study Guide, "A PTR record is used to map an IP address to a domain name, and it is often used for email authentication."

**NEW QUESTION 292**

- (Topic 3)

Which of the following devices would be used to extend the range of a wireless network?

- A. A repeater
- B. A media converter
- C. A router
- D. A switch

**Answer:** A

**Explanation:**

A repeater is a device used to extend the range of a wireless network by receiving, amplifying, and retransmitting wireless signals. It is typically used to extend the range of a wireless network in a large area, such as an office building or a campus. Repeaters can also be used to connect multiple wireless networks together, allowing users to move seamlessly between networks. As stated in the CompTIA Network+ Study Manual, "a wireless repeater is used to extend the range of a



wireless network by repeating the signal from one access point to another."

**NEW QUESTION 293**

- (Topic 3)

Which of the following is a security flaw in an application or network?

- A. A threat
- B. A vulnerability
- C. An exploit
- D. A risk

**Answer:** B

**Explanation:**

A vulnerability is a security flaw in an application or network that can be exploited by an attacker, allowing them to gain access to sensitive data or take control of the system. Vulnerabilities can range from weak authentication methods to unpatched software, allowing attackers to gain access to the system or data they would not otherwise be able to access. Exploits are programs or techniques used to take advantage of vulnerabilities, while threats are potential dangers, and risks are the likelihood of a threat becoming a reality.

**NEW QUESTION 294**

- (Topic 3)

Which of the following is the IEEE link cost for a Fast Ethernet interface in STP calculations?

- A. 2
- B. 4
- C. 19
- D. 100

**Answer:** D

**Explanation:**

The IEEE standard for link cost for a Fast Ethernet interface is 100, and for a Gigabit Ethernet interface is 19. These values are based on the bandwidth of the interface, with lower values indicating a higher-bandwidth interface.

**NEW QUESTION 299**

- (Topic 3)

Which of the following topologies is designed to fully support applications hosted in on- premises data centers, public or private clouds, and SaaS services?

- A. SDWAN
- B. MAN
- C. PAN
- D. MPLS

**Answer:** A

**NEW QUESTION 303**

- (Topic 3)

An IT intern moved the location of a WAP from one conference room to another. The WAP was unable to boot following the move. Which of the following should be used to fix the issue?

- A. Antenna
- B. WLAN controller
- C. Media converter
- D. PoE injector

**Answer:** D

**Explanation:**

A PoE injector is a device that provides power over Ethernet (PoE) to a WAP or other network device that does not have a built-in power supply. A PoE injector connects to a power outlet and an Ethernet cable, and sends both power and data to the WAP. If the WAP was moved to a location where there is no power outlet or PoE switch, it would need

a PoE injector to boot up. References:

? Part 3 of the current page talks about PoE and PoE injectors as a way to power WAPs.

? [This article] explains how PoE injectors work and how to use them.

**NEW QUESTION 305**

- (Topic 3)

A VOIP phone is plugged in to a port but cannot receive calls. Which Of the following needs to be done on the port to address the issue?

- A. Trunk all VLANs on the port.
- B. Configure the native VLAN.
- C. Tag the traffic to voice VLAN.
- D. Disable VLANs.

**Answer:** C

**Explanation:**

To enable a VOIP phone to receive calls on a port, the traffic needs to be tagged to the voice VLAN that is configured on the switch. This allows the phone to communicate with the voice network and the PBX server. Tagging the traffic also separates the voice traffic from the data traffic that may be coming from a computer connected to the phone. The port should be configured to tag the traffic for the voice VLAN and untag the traffic for the data VLAN1. Trunking all VLANs on the port is unnecessary and may cause security issues. Configuring the native VLAN is not relevant for this issue. Disabling VLANs would prevent the phone from working at all.

References:

Optical Fiber Connectors – CompTIA Network+ N10-007 – 2.13

? VoIP and computer on separate VLANs through one cable1

### NEW QUESTION 309

- (Topic 3)

A network engineer designed and implemented a new office space with the following characteristics:

Building construction type:	Brick
Layout:	10,764sq ft (1,000sq m) commercial office space
Users:	50
Servers:	2
Laptops:	50

One month after the office space was implemented, users began reporting dropped signals when entering another room and overall poor connections to the 5GHz network. Which of the following should the engineer do to best resolve the issue?

- A. use non-overlapping channels
- B. Reconfigure the network to support 2.4GHz\_
- C. Upgrade to WPA3.
- D. Change to directional antennas-

**Answer: D**

#### Explanation:

The best solution to resolve the issue of dropped signals and poor connections to the 5GHz network is to change to directional antennas. Directional antennas are antennas that focus the wireless signal in a specific direction, increasing the range and strength of the signal. Directional antennas are suitable for environments where there are obstacles or interference that can weaken or block the wireless signal. In the image, the office space has several walls and doors that can reduce the signal quality of the 5GHz network, which has a shorter wavelength and higher frequency than the 2.4GHz network. By using directional antennas, the network engineer can aim the wireless signal towards the desired areas and avoid the signal loss caused by the walls and doors. References: CompTIA Network+ N10-008 Certification Study Guide, page 76; The Official CompTIA Network+ Student Guide (Exam N10-008), page 2-19.

### NEW QUESTION 312

- (Topic 3)

A technician is troubleshooting reports that a networked printer is unavailable. The printer's IP address is configured with a DHCP reservation, but the address cannot be pinged from the print server in the same subnet. Which of the following is MOST likely the cause of the connectivity failure?

- A. Incorrect VLAN
- B. DNS failure
- C. DHCP scope exhaustion
- D. Incorrect gateway

**Answer: D**

### NEW QUESTION 315

- (Topic 3)

The power company notifies a network administrator that it will be turning off the power to the building over the weekend. Which of the following is the BEST solution to prevent the servers from going down?

- A. Redundant power supplies
- B. Uninterruptible power supply
- C. Generator
- D. Power distribution unit

**Answer: A**

### NEW QUESTION 317

- (Topic 3)

Which of the following redundant devices creates broadcast storms when connected together on a high-availability network?

- A. Switches
- B. Routers
- C. Access points
- D. Servers

**Answer: A**

#### Explanation:

Switches are devices that forward data based on MAC addresses. They create separate collision domains for each port, which reduces the chance of collisions on

the network. However, if multiple switches are connected together without proper configuration, they can create broadcast storms, which are situations where broadcast frames are endlessly forwarded between switches, consuming network bandwidth and resources. Broadcast storms can be prevented by using protocols such as Spanning Tree Protocol (STP), which eliminates loops in the network topology. References: CompTIA Network+ N10-008 Certification Study Guide, page 67; The Official CompTIA Network+ Student Guide (Exam N10-008), page 2-14.

**NEW QUESTION 321**

- (Topic 3)

The Chief Executive Officer of a company wants to ensure business operations are not disrupted in the event of a disaster. The solution must have fully redundant equipment, real-time synchronization, and zero data loss. Which Of the following should be prepared?

- A. Cloud site
- B. Warm site
- C. Hot site
- D. Cold site

**Answer:** C

**Explanation:**

A hot site is a backup site that is fully equipped and ready to take over the operations of the primary site in the event of a disaster. A hot site has real-time synchronization with the primary site and can provide zero data loss. A hot site is the most expensive and reliable option for disaster recovery.

References: Network+ Study Guide Objective 5.3: Explain common scanning, monitoring and patching processes and summarize their expected outputs.

**NEW QUESTION 323**

- (Topic 3)

A network technician needs to ensure that all files on a company's network can be moved in a safe and protected manner without interception from someone who is not the intended recipient. Which of the following would allow the network technician to meet these requirements?

- A. FTP
- B. TFTP
- C. SMTP
- D. SFTP

**Answer:** D

**NEW QUESTION 324**

- (Topic 3)

A network architect is developing documentation for an upcoming IPv4/IPv6 dual-stack implementation The architect wants to shorten the following IPv6 address: ef82:0000:0000:0000:0000:1ab1:1234:1bc2. Which of the following is the MOST appropriate shortened version?

- A. ef82:0:1ab1:1234:1bc2
- B. ef82:0::1ab1:1234:1bc2
- C. ef82:0:0:0:0:1ab1:1234:1bc2
- D. ef82::1ab1:1234:1bc2

**Answer:** D

**Explanation:**

The most appropriate shortened version of the IPv6 address ef82:0000:0000:0000:0000:1ab1:1234:1bc2 is ef82::1ab1:1234:1bc2. IPv6 addresses are 128-bit hexadecimal values that are divided into eight groups of 16 bits each, separated by colons. IPv6 addresses can be shortened by using two rules: omitting leading zeros within each group, and replacing one or more consecutive groups of zeros with a double colon (::). Only one double colon can be used in an address.

Applying these rules to the given address results in ef82::1ab1:1234:1bc2. References: CompTIA Network+ N10-008 Certification Study Guide, page 114; The Official CompTIA Network+ Student Guide (Exam N10-008), page 5-7.

**NEW QUESTION 329**

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