

# CompTIA

## Exam Questions N10-008

CompTIA Network+Exam



### NEW QUESTION 1

- (Topic 1)

The management team needs to ensure unnecessary modifications to the corporate network are not permitted and version control is maintained. Which of the following documents would BEST support this?

- A. An incident response plan
- B. A business continuity plan
- C. A change management policy
- D. An acceptable use policy

**Answer: C**

#### Explanation:

A change management policy is a document that outlines the procedures and guidelines for making changes to a network or system, including how changes are approved, tested, and implemented. By following a change management policy, organizations can ensure that unnecessary modifications to the network are not permitted and version control is maintained. References:

? Network+ N10-008 Objectives: 1.6 Given a scenario, implement network configuration and change management best practices.

### NEW QUESTION 2

- (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 3

- (Topic 1)

A technician is connecting multiple switches to create a large network for a new office. The switches are unmanaged Layer 2 switches with multiple connections between each pair. The network is experiencing an extreme amount of latency. Which of the following is MOST likely occurring?

- A. Ethernet collisions
- B. A DDoS attack
- C. A broadcast storm
- D. Routing loops

**Answer: C**

#### Explanation:

A broadcast storm is most likely occurring when connecting multiple unmanaged Layer 2 switches with multiple connections between each pair. A broadcast storm is a situation where broadcast packets flood a network segment and consume all the available bandwidth. It can be caused by loops in the network topology, where broadcast packets are endlessly forwarded by switches without any loop prevention mechanism. Unmanaged switches do not support features such as Spanning Tree Protocol (STP) or Rapid Spanning Tree Protocol (RSTP) that can detect and block loops. References: <https://www.cisco.com/c/en/us/support/docs/lan-switching/spanning-tree-protocol/10556-16.html>

### NEW QUESTION 4

- (Topic 1)

An administrator is writing a script to periodically log the IPv6 and MAC addresses of all the devices on a network segment. Which of the following switch features will MOST likely be used to assist with this task?

- A. Spanning Tree Protocol
- B. Neighbor Discovery Protocol
- C. Link Aggregation Control Protocol
- D. Address Resolution Protocol

**Answer: B**

#### Explanation:

The switch feature that is most likely to be used to assist with logging IPv6 and MAC addresses of devices on a network segment is Neighbor Discovery Protocol (NDP). NDP is used by IPv6 to discover and maintain information about other nodes on the network, including their IPv6 and MAC addresses. By periodically querying NDP, the administrator can log this information for auditing purposes. References:

? CompTIA Network+ Certification Study Guide, Exam N10-007, Fourth Edition,

Chapter 2: The OSI Model and Networking Protocols, Objective 2.1: Compare and contrast TCP and UDP ports, protocols, and their purposes.

### NEW QUESTION 5

- (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 6**

- (Topic 1)

A client recently added 100 users who are using VMs. All users have since reported slow or unresponsive desktops. Reports show minimal network congestion, zero packet loss, and acceptable packet delay. Which of the following metrics will MOST accurately show the underlying performance issues? (Choose two.)

- A. CPU usage
- B. Memory
- C. Temperature
- D. Bandwidth
- E. Latency
- F. Jitter

**Answer:** AB

**NEW QUESTION 7**

- (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 8**

- (Topic 1)

A network technician is reviewing the interface counters on a router interface. The technician is attempting to confirm a cable issue. Given the following information:

Metric	Value
Last cleared	7 minutes, 34 seconds
# of packets output	6915
# of packets input	270
CRCs	183
Giants	0
Runts	0
Multicasts	14

Which of the following metrics confirms there is a cabling issue?

- A. Last cleared
- B. Number of packets output
- C. CRCs
- D. Giants
- E. Multicasts

**Answer:** C

**Explanation:**

CRC stands for Cyclic Redundancy Check, and it is a type of error-detecting code used to detect accidental changes to raw data. If the CRC count is increasing on a particular interface, it indicates that there might be an issue with the cabling, which is causing data corruption. References: ? Network+ N10-008 Objectives: 2.1 Given a scenario, troubleshoot common physical connectivity issues.

**NEW QUESTION 9**

- (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 10**

- (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 10**

- (Topic 1)

A network administrator walks into a datacenter and notices an unknown person is following closely. The administrator stops and directs the person to the security desk. Which of the following attacks did the network administrator prevent?

- A. Evil twin
- B. Tailgating
- C. Piggybacking
- D. Shoulder surfing

**Answer: B**

**Explanation:**

Tailgating is a physical security attack where an unauthorized person follows an authorized person into a restricted area without proper identification or authorization. The network administrator prevented this attack by stopping and directing the person to the security desk. References: CompTIA Network+ Certification Exam Objectives Version 2.0 (Exam Number: N10-006), Domain 3.0 Network Security, Objective 3.1 Compare and contrast risk-related concepts.

**NEW QUESTION 12**

- (Topic 1)

Which of the following TCP ports is used by the Windows OS for file sharing?

- A. 53
- B. 389
- C. 445
- D. 1433

**Answer: C**

**Explanation:**

TCP port 445 is used by the Windows OS for file sharing. It is also known as SMB (Server Message Block) or CIFS (Common Internet File System) and allows users to access files, printers, and other shared resources on a network. References: <https://docs.microsoft.com/en-us/windows-server/storage/file-server/troubleshoot/detect-enable-and-disable-smbv1-v2-v3>

**NEW QUESTION 14**

- (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 15**

- (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 18**

- (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 21**

- (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 22**

- (Topic 1)

Wireless users are reporting intermittent internet connectivity. Connectivity is restored when the users disconnect and reconnect, utilizing the web authentication process each time. The network administrator can see the devices connected to the APs at all times. Which of the following steps will MOST likely determine the cause of the issue?

- A. Verify the session time-out configuration on the captive portal settings
- B. Check for encryption protocol mismatch on the client's wireless settings
- C. Confirm that a valid passphrase is being used during the web authentication
- D. Investigate for a client's disassociation caused by an evil twin AP

**Answer:** A

**Explanation:**

A captive portal is a web page that requires users to authenticate before they can access the internet. If the session time-out configuration is too short, users may experience intermittent internet connectivity and have to reconnect using the web authentication process each time. The network administrator can verify the session time-out configuration on the captive portal settings and adjust it if needed. References: CompTIA Network+ Certification Exam Objectives Version 2.0 (Exam Number: N10-006), Domain 1.0 Network Architecture, Objective 1.8 Explain the purposes and use cases for

advanced networking devices.

#### NEW QUESTION 27

- (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 28

- (Topic 1)

Which of the following devices would be used to manage a corporate WLAN?

- A. A wireless NAS
- B. A wireless bridge
- C. A wireless router
- D. A wireless controller

**Answer:** D

#### Explanation:

A wireless controller is used to manage a corporate WLAN, providing centralized management and configuration of access points. References: CompTIA Network+ Certification Study Guide, Chapter 8: Wireless Networks.

#### NEW QUESTION 33

- (Topic 2)

A technician is implementing a new wireless network to serve guests at a local office. The network needs to provide Internet access but disallow associated stations from communicating with each other. Which of the following would BEST accomplish this requirement?

- A. Wireless client isolation
- B. Port security
- C. Device geofencing
- D. DHCP snooping

**Answer:** A

#### Explanation:

Wireless client isolation is a feature on wireless routers that limits the connectivity between wireless devices connected to the same network. It prevents them from accessing resources on other wireless or wired devices, as a security measure to reduce attacks and threats. This feature can be useful for guest and BYOD SSIDs, but it can also be disabled on the router's settings. References: <https://www.howtogeek.com/179089/lock-down-your-wi-fi-network-with-your-routers-wireless-isolation-option/>

#### NEW QUESTION 34

- (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 35

- (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 37**

- (Topic 2)

A network technician has multimode fiber optic cable available in an existing IDF. Which of the following Ethernet standards should the technician use to connect the network switch to the existing fiber?

- A. 10GBaseT
- B. 1000BaseT
- C. 1000BaseSX
- D. 1000BaseLX

**Answer:** C

**Explanation:**

1000BaseSX is an Ethernet standard that should be used to connect the network switch to the existing multimode fiber optic cable. 1000BaseSX is a Gigabit Ethernet standard that uses short-wavelength laser (850 nm) over multimode fiber optic cable. It can support distances up to 550 meters depending on the cable type and quality. It is suitable for short-range network segments such as campus or building backbone networks. References: [https://www.cisco.com/c/en/us/products/collateral/interfaces-modules/gigabit-ethernet-gbic-sfp-modules/product\\_data\\_sheet09186a008014cb5e.html](https://www.cisco.com/c/en/us/products/collateral/interfaces-modules/gigabit-ethernet-gbic-sfp-modules/product_data_sheet09186a008014cb5e.html)

**NEW QUESTION 41**

- (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 46**

- (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 48**

- (Topic 2)

A company wants to implement a large number of WAPs throughout its building and allow users to be able to move around the building without dropping their connections Which of the following pieces of equipment would be able to handle this requirement?

- A. A VPN concentrator
- B. A load balancer
- C. A wireless controller
- D. A RADIUS server

**Answer:** C

**Explanation:**

A wireless controller would be able to handle the requirement of implementing a large number of WAPs throughout the building and allowing users to move around without dropping their connections. A wireless controller is a device that centrally manages and configures multiple wireless access points (WAPs) on a network. It can provide features such as load balancing, roaming, security, QoS, and monitoring for the wireless network. A wireless controller can also support wireless mesh networks, where some WAPs act as relays for other WAPs to extend the wireless coverage. References: <https://www.cisco.com/c/en/us/products/wireless/wireless-lan-controller/index.html>

**NEW QUESTION 53**

- (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 57**

- (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 61**

- (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 63**

- (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 67**

- (Topic 2)

A network field technician is installing and configuring a secure wireless network. The technician performs a site survey. Which of the following documents would MOST likely be created as a result of the site survey?

- A. Physical diagram
- B. Heat map
- C. Asset list
- D. Device map

**Answer:** B

**Explanation:**

A heat map would most likely be created as a result of the site survey. A heat map is a graphical representation of the wireless signal strength and coverage in a given area. It can show the location of APs, antennas, walls, obstacles, interference sources, and dead zones. It can help with planning, optimizing, and troubleshooting wireless networks. References: <https://www.netspotapp.com/what-is-a-wifi-heatmap.html>

**NEW QUESTION 72**

- (Topic 2)

A network technician is observing the behavior of an unmanaged switch when a new device is added to the network and transmits data. Which of the following BEST describes how the switch processes this information?

- A. The data is flooded out of every port
- B. including the one on which it came in.
- C. The data is flooded out of every port but only in the VLAN where it is located.
- D. The data is flooded out of every port, except the one on which it came in
- E. The data is flooded out of every port, excluding the VLAN where it is located

**Answer:** C

**Explanation:**

The switch processes the data by flooding it out of every port, except the one on which it came in. Flooding is a process where a switch sends a data frame to all ports except the source port when it does not have an entry for the destination MAC address in its MAC address table. Flooding allows the switch to learn the MAC addresses of the devices connected to its ports and update its MAC address table accordingly. Flooding also ensures that the data frame reaches its intended destination, even if the switch does not know its location. References: <https://www.cisco.com/c/en/us/support/docs/lan-switching/spanning-tree-protocol/10556-16.html>

**NEW QUESTION 74**

- (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 78**

- (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 80**

- (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 81**

- (Topic 3)

A network administrator notices excessive wireless traffic occurring on an access point after normal business hours. The access point is located on an exterior wall. Which of the following should the administrator do to limit wireless access outside the building?

- A. Set up a private VLAN.
- B. Disable roaming on the WAP.
- C. Change to a directional antenna.
- D. Stop broadcasting of the SSID.

**Answer:** C

**Explanation:**

A directional antenna is a type of antenna that radiates or receives radio waves in a specific direction. This can help limit wireless access outside the building by focusing the signal towards the intended area and reducing the signal strength in other directions. A private VLAN is a feature that isolates network devices within a VLAN. Disabling roaming on the WAP prevents wireless clients from switching to another WAP when the signal is weak. Stopping broadcasting of the SSID hides the network name from wireless clients, but does not prevent them from connecting if they know the SSID.

References: CompTIA Network+ Certification Exam Objectives Version 7.0 (N10-007), Objective 3.1: Given a scenario, install and configure wireless LAN infrastructure and implement the appropriate technologies in support of wireless capable devices.

**NEW QUESTION 84**

- (Topic 3)

A technician notices that equipment is being moved around and misplaced in the server room, even though the room has locked doors and cabinets. Which of the following would be the BEST solution to identify who is responsible?

- A. Install motion detection
- B. Install cameras.
- C. Install tamper detection.
- D. Hire a security guard.

**Answer:** B

**Explanation:**

Installing cameras in the server room is the best solution to identify who is responsible for the equipment being moved and misplaced. Cameras provide a way to monitor the server room in real time and can be used to identify suspicious activity. Additionally, they provide a way to review past activity and allow you to review footage to determine who may be responsible for the misplacement of equipment.

**NEW QUESTION 89**

- (Topic 3)

A network resource was accessed by an outsider as a result of a successful phishing campaign. Which of the following strategies should be employed to mitigate the effects of phishing?

- A. Multifactor authentication
- B. Single sign-on
- C. RADIUS
- D. VPN

**Answer:** A

**Explanation:**

Multifactor authentication is a security measure that requires users to provide multiple pieces of evidence before they can access a network resource. This could

include requiring users to enter a username, password, and a code sent to the user's mobile phone before they are allowed access. This ensures that the user is who they say they are, reducing the risk of malicious actors gaining access to network resources as a result of a successful phishing campaign.

**NEW QUESTION 92**

- (Topic 3)

A network technician has determined the cause of a network disruption. Which of the following is the NEXT step for the technician to perform?

- A. Validate the findings in a top-to-bottom approach
- B. Duplicate the issue, if possible
- C. Establish a plan of action to resolve the issue
- D. Document the findings and actions

**Answer: C**

**NEW QUESTION 96**

- (Topic 3)

A technician is investigating why a PC cannot reach a file server with the IP address 192.168.8.129. Given the following TCP/IP network configuration:

Link-local IPv6 address	fe80::28e4:a7cc:a55e:4bea
IPv4 address	192.168.8.105
Subnet mask	255.255.255.128
Default gateway	192.168.8.1

Which of the following configurations on the PC is incorrect?

- A. Subnet mask
- B. IPv4 address
- C. Default gateway
- D. IPv6 address

**Answer: C**

**Explanation:**

The default gateway is the IP address of the router that connects the PC to other networks. The default gateway should be on the same subnet as the PC's IPv4 address. However, in this case, the default gateway is 192.168.9.1, which is on a different subnet than the PC's IPv4 address of 192.168.8.15. Therefore, the default gateway configuration on the PC is incorrect and prevents the PC from reaching the file server on another subnet.

**NEW QUESTION 100**

- (Topic 3)

While setting up a new workstation, a technician discovers that the network connection is only 100 full duplex (FD), although it is connected to a gigabit switch. While reviewing the interface information in the switch CLI, the technician notes the port is operating at IOOFD but Shows many RX and TX errors. The technician moves the computer to another switchport and experiences the same issues.

Which of the following is MOST likely the cause of the low data rate and port errors?

- A. Bad switch ports
- B. Duplex issues
- C. Cable length
- D. Incorrect pinout

**Answer: B**

**NEW QUESTION 104**

- (Topic 3)

A network administrator is preparing new switches that will be deployed to support a network extension project. The lead network engineer has already provided documentation to ensure the switches are set up properly Which of the following did the engineer most likely provide?

- A. Physical network diagram
- B. Site survey reports
- C. Baseline configurations
- D. Logical network diagram

**Answer: C**

**Explanation:**

Baseline configurations are the standard settings and parameters that are applied to network devices, such as switches, routers, firewalls, etc., to ensure consistent performance, security, and functionality across the network. Baseline configurations can include aspects such as IP addresses, VLANs, passwords, protocols, access lists, firmware versions, etc. Baseline configurations are usually documented and updated regularly to reflect any changes or modifications made to the network devices.

The lead network engineer most likely provided baseline configurations to the network administrator to ensure that the new switches are set up properly and in accordance with the network design and policies. Baseline configurations can help to simplify the deployment process, reduce errors and inconsistencies, and facilitate troubleshooting and maintenance.

The other options are not correct because they are not the most likely documentation that the lead network engineer provided to the network administrator. They are:

? Physical network diagram. A physical network diagram is a graphical representation of the physical layout and connections of the network devices and components, such as cables, ports, switches, routers, servers, etc. A physical network diagram can help to visualize the network topology, identify the locations and distances of the devices, and plan for cabling and power requirements. However, a physical network diagram does not provide the specific settings and parameters that need to be configured on the network devices, such as the switches.

? Site survey reports. A site survey report is a document that summarizes the findings and recommendations of a site survey, which is a process of assessing the

suitability and readiness of a location for installing and operating network devices and components. A site survey report can include aspects such as environmental conditions, power and cooling availability, security and safety measures, interference and noise sources, signal coverage and quality, etc. A site survey report can help to identify and resolve any potential issues or challenges that may affect the network performance and reliability. However, a site survey report does not provide the specific settings and parameters that need to be configured on the network devices, such as the switches.

? Logical network diagram. A logical network diagram is a graphical representation of the logical structure and functionality of the network devices and components, such as subnets, IP addresses, VLANs, protocols, routing, firewall rules, etc. A logical network diagram can help to understand the network design, architecture, and policies, as well as the data flow and communication paths between the devices. However, a logical network diagram does not provide the specific settings and parameters that need to be configured on the network devices, such as the switches.

References1: Network+ (Plus) Certification | CompTIA IT Certifications2: What is a Baseline Configuration? - Definition from Techopedia3: What is a Physical Network Diagram? - Definition from Techopedia4: What is a Site Survey? - Definition from Techopedia5: [What is a Logical Network Diagram? - Definition from Techopedia]

#### NEW QUESTION 105

- (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 108

- (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 VLAN. 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 cable

#### NEW QUESTION 111

- (Topic 3)

An IT administrator is creating an alias to the primary customer's domain. Which of the following DNS record types does this represent?

- A. CNAME
- B. MX
- C. A
- D. PTR

**Answer: A**

#### Explanation:

A CNAME record is a type of DNS record that maps an alias name to a canonical name, or the primary domain name. A CNAME record is used to create subdomains or alternative names for the same website, without having to specify the IP address for each alias. For example, a CNAME record can map [www.example.com](http://www.example.com) to [example.com](http://example.com), or [mail.example.com](http://mail.example.com) to [example.com](http://example.com). References: CompTIA Network+ N10-008 Cert Guide, Chapter 2, Section 2.4

#### NEW QUESTION 115

- (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 119

- (Topic 3)

A user calls the IT department to report being unable to log in after locking the computer. The user resets the password, but later in the day the user is again unable to log in after locking the computer. Which of the following attacks against the user is MOST likely taking place?

- A. Brute-force
- B. On-path
- C. Deauthentication
- D. Phishing

**Answer:** A

#### NEW QUESTION 124

- (Topic 3)

Which of the following routing technologies is used to prevent network failure at the gateway by protecting data traffic from a failed router?

- A. BGP
- B. OSPF
- C. EIGRP
- D. FHRP

**Answer:** D

#### Explanation:

FHRP stands for First Hop Redundancy Protocol, and it is a group of protocols that allow routers to work together to provide backup or failover for the default gateway in a network. FHRP can prevent network failure at the gateway by protecting data traffic from a failed router and ensuring that there is always an active router to forward packets. Some examples of FHRP protocols are HSRP, VRRP, and GLBP.

References: 1: CompTIA Network+ N10-008 Cert Guide - Chapter 13: Routing Protocols 2: First Hop Redundancy Protocols (FHRP) Explained

#### NEW QUESTION 125

- (Topic 3)

A company is opening a new building on the other side of its campus. The distance from the closest building to the new building is 1,804ft (550m). The company needs to connect the networking equipment in the new building to the other buildings on the campus without using a repeater. Which of the following transceivers should the company use?

- A. 10GBASE-SW
- B. 10GBASE-LR
- C. 10GBASE-LX4 over multimode fiber
- D. 10GBASE-SR

**Answer:** B

#### Explanation:

10GBASE-LR is a standard for 10 Gbps Ethernet over single-mode fiber optic cable. It can support a maximum distance of 6.2 miles (10 km), which is much longer than the distance between the buildings. 10GBASE-SW, 10GBASE-LX4, and 10GBASE-SR are all standards for 10 Gbps Ethernet over multimode fiber optic cable, which have shorter maximum distances ranging from 984ft (300m) to 1,312ft (400m).

References: CompTIA Network+ Certification Exam Objectives Version 7.0 (N10-007), Objective 1.5: Compare and contrast network cabling types, standards and speeds.

#### NEW QUESTION 126

- (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 131

- (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 133

- (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: ef82:0000:0000:0000:1ab1:1234:1bc2. Which of the following is the MOST appropriate shortened version?

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

**Answer: D**

**Explanation:**

The most appropriate shortened version of the IPv6 address ef82:0000:0000:0000:1ab1:1234:1bc2 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 135**

- (Topic 3)

Which of the following attacks utilizes a network packet that contains multiple network tags?

- A. MAC flooding
- B. VLAN hopping
- C. DNS spoofing
- D. ARP poisoning

**Answer: B**

**NEW QUESTION 136**

- (Topic 3)

A company is considering shifting its business to the cloud. The management team is concerned at the availability of the third-party cloud service. Which of the following should the management team consult to determine the promised availability of the cloud provider?

- A. Memorandum of understanding
- B. Business continuity plan
- C. Disaster recovery plan
- D. Service-level agreement

**Answer: D**

**Explanation:**

A Service-level agreement (SLA) is a document that outlines the responsibilities of a cloud service provider and the customer. It typically includes the agreed-upon availability of the cloud service provider, the expected uptime for the service, and the cost of any downtime or other service interruptions. Consulting the SLA is the best way for the management team to determine the promised availability of the cloud provider. Reference: CompTIA Cloud+ Study Guide, 6th Edition, page 28.

**NEW QUESTION 139**

- (Topic 3)

Which of the following architectures would allow the network-forwarding elements to adapt to new business requirements with the least amount of operating effort?

- A. Software-defined network
- B. Spine and leaf
- C. Three-tier
- D. Backbone

**Answer: A**

**Explanation:**

Software-defined network (SDN) is a network architecture that allows the network-forwarding elements to be controlled by a centralized software application. This enables the network to adapt to new business requirements with the least amount of operating effort, as the network administrator can configure and manage the network from a single console, without having to manually configure each device individually. SDN also provides more flexibility, agility, and scalability for the network, as it can dynamically adjust the network resources and policies based on the application needs and traffic conditions.

References:

? CompTIA Network+ Certification Exam Objectives, page 5, section 1.3: "Explain the concepts and characteristics of routing and switching."

? Software-Defined Networking – CompTIA Network+ N10-007 – 1.3, video lecture by Professor Messer.

**NEW QUESTION 141**

- (Topic 3)

A network technician wants to find the shortest path from one node to every other node in the network. Which of the following algorithms will provide the FASTEST convergence time?

- A. A static algorithm
- B. A link-state algorithm
- C. A distance-vector algorithm
- D. A path-vector algorithm

**Answer: B**

**Explanation:**

A link-state algorithm is a routing algorithm that uses information about the state of each link in the network to calculate the shortest path from one node to every other node. A link-state algorithm requires each router to maintain a complete map of the network topology and exchange link-state advertisements with its neighbors periodically or when a change occurs. A link-state algorithm uses a mathematical formula called Dijkstra's algorithm to find the shortest path based on the link costs. A link-state algorithm provides the fastest convergence time because it can quickly detect and adapt to network changes. References: [CompTIA Network+ Certification Exam Objectives], [Link-state routing protocol - Wikipedia]

#### NEW QUESTION 144

- (Topic 3)

Which of the following DNS records maps an alias to a true name?

- A. AAAA
- B. NS
- C. TXT
- D. CNAME

**Answer:** D

#### Explanation:

A CNAME (Canonical Name) record is a type of DNS (Domain Name System) record that maps an alias name to a canonical or true domain name. For example, a CNAME record can map `blog.example.com` to `example.com`, which means that `blog.example.com` is an alias of `example.com`. A CNAME record is useful when you want to point multiple subdomains to the same IP address, or when you want to change the IP address of a domain without affecting the subdomains<sup>1</sup>.

#### NEW QUESTION 148

- (Topic 3)

Which of the following devices is used to configure and centrally manage access points installed at different locations?

- A. Wireless controller
- B. Load balancer
- C. Proxy server
- D. VPN concentrator

**Answer:** A

#### Explanation:

Access points (APs) can be configured and centrally managed using a wireless LAN controller (WLC). A WLC is a device that connects to multiple APs and provides centralized management and control of those APs. The WLC can be used to configure settings such as wireless network parameters, security settings, and quality of service (QoS) policies. Additionally, the WLC can be used to monitor the status of connected APs, track client connections, and gather statistics on network usage. Some vendors such as Cisco, Aruba, Ruckus, etc. provide wireless LAN controllers as part of their wireless networking solutions.

#### NEW QUESTION 149

- (Topic 3)

An engineer recently decided to upgrade the firmware on a router. During the upgrade, the help desk received calls about a network outage, and a critical ticket was opened. The network manager would like to create a policy to prevent this from happening in the future. Which of the following documents should the manager create?

- A. Change management
- B. incident response
- C. Standard operating procedure
- D. System life cycle

**Answer:** A

#### NEW QUESTION 150

- (Topic 3)

While troubleshooting a network, a VoIP systems engineer discovers a significant inconsistency in the amount of time required for data to reach its destination and return. Which of the following terms best describes this issue?

- A. Bandwidth
- B. Latency
- C. Jitter
- D. Throughput

**Answer:** C

#### Explanation:

Jitter is the variation in the delay of data packets over a network. It is caused by factors such as network congestion, routing changes, packet loss, or improper queuing. Jitter affects the quality of VoIP calls because it can cause gaps, distortion, or out-of-order delivery of voice data. Jitter can be measured by the difference between the expected and actual arrival times of packets<sup>2</sup>. To reduce jitter, VoIP systems use buffers to store and reorder packets before playing them back. However, too much buffering can also increase latency, which is the total time it takes for data to travel from one point to another<sup>3</sup>.

References<sup>2</sup> - VoIP Troubleshooting: 5 Fixes for Common Connection Issues - Nextiva<sup>3</sup> - Troubleshooting VoIP — Is it You or the Network? - PingPlotter

#### NEW QUESTION 152

- (Topic 3)

Which of the following records can be used to track the number of changes on a DNS zone?

- A. SOA
- B. SRV
- C. PTR

D. NS

**Answer:** A

**Explanation:**

The DNS 'start of authority' (SOA) record stores important information about a domain or zone such as the email address of the administrator, when the domain was last updated, and how long the server should wait between refreshes. All DNS zones need an SOA record in order to conform to IETF standards. SOA records are also important for zone transfers.

**NEW QUESTION 153**

- (Topic 3)

Which of the following documents is MOST likely to be associated with identifying and documenting critical applications?

- A. Software development life-cycle policy
- B. User acceptance testing plan
- C. Change management policy
- D. Business continuity plan

**Answer:** D

**Explanation:**

A business continuity plan (BCP) is a document that outlines the procedures and strategies to ensure the continuity of critical business functions in the event of a disaster or disruption. A BCP is most likely to be associated with identifying and documenting critical applications that are essential for the organization's operations and recovery. A BCP also defines the roles and responsibilities of the staff, the backup and restore processes, the communication channels, and the testing and maintenance schedules.

References: Network+ Study Guide Objective 5.2: Explain disaster recovery and business continuity concepts.

**NEW QUESTION 154**

- (Topic 3)

Which of the following technologies would MOST likely be used to prevent the loss of connection between a virtual server and network storage devices?

- A. Multipathing
- B. VRRP
- C. Port aggregation
- D. NIC teaming

**Answer:** D

**Explanation:**

NIC teaming is a technology that allows multiple network interface cards (NICs) to work together as a single logical interface, providing redundancy and load balancing. This can prevent the loss of connection between a virtual server and network storage devices if one of the NICs fails or becomes disconnected.

References: [CompTIA Network+ Certification Exam Objectives], Domain 2.0 Networking Concepts, Objective 2.5: Explain the purposes and use cases for advanced networking devices, Subobjective: NIC bonding/teaming

**NEW QUESTION 156**

- (Topic 3)

Which of the following protocols is widely used in large-scale enterprise networks to support complex networks with multiple routers and balance traffic load on multiple links?

- A. OSPF
- B. RIPv2
- C. QoS
- D. STP

**Answer:** A

**NEW QUESTION 158**

- (Topic 3)

A Wi-Fi network was recently deployed in a new, multilevel building. Several issues are now being reported related to latency and drops in coverage. Which of the following is the FIRST step to troubleshoot the issues?

- A. Perform a site survey.
- B. Review the AP placement
- C. Monitor channel utilization.
- D. Test cable attenuation.

**Answer:** A

**NEW QUESTION 159**

- (Topic 3)

A company streams video to multiple devices across a campus. When this happens, several users report a degradation of network performance. Which of the following would MOST likely address this issue?

- A. Enable IGMP snooping on the switches.
- B. Implement another DHCP server.
- C. Reconfigure port tagging for the video traffic.
- D. Change the SSID of the APs

Answer: A

#### NEW QUESTION 161

- (Topic 3)

A Chief Information Officer wants to monitor network breaching in a passive, controlled manner. Which of the following would be best to implement?

- A. Honeypot
- B. Perimeter network
- C. Intrusion prevention system
- D. Port security

Answer: A

#### Explanation:

A honeypot is a decoy system that is designed to attract and trap hackers who attempt to breach the network. A honeypot mimics a real system or network, but contains fake or non-sensitive data and applications. A honeypot can be used to monitor network breaching in a passive, controlled manner, as it allows the network administrator to observe the hacker's behavior, techniques, and tools without compromising the actual network or data. A honeypot can also help to divert the hacker's attention from the real targets and collect forensic evidence for further analysis or prosecution.

#### NEW QUESTION 166

- (Topic 3)

A network administrator is configuring logging on an edge switch. The requirements are to log each time a switch port goes up or down. Which of the following logging levels will provide this information?

- A. Warnings
- B. Notifications
- C. Alert
- D. Errors

Answer: B

#### Explanation:

Notifications are the lowest logging level and will provide the desired information regarding switch port up/down activity. According to the CompTIA Network+ Study Manual, notifications "are used for logging normal activities, such as port up/down events, link changes, and link flaps."

#### NEW QUESTION 169

- (Topic 3)

A company realizes that only half of its employees work in the office, and the employees who work from home no longer need a computer at the office. Which of the following security measures should the network administrator implement when removing a computer from a cubicle?

- A. Disable DHCP on the computer being removed.
- B. Place the switch port in a private VLAN.
- C. Apply a firewall rule to block the computer's IP address.
- D. Remove the employee's network access.

Answer: D

#### Explanation:

The best security measure to implement when removing a computer from a cubicle is to remove the employee's network access. This will prevent the employee from accessing any network resources or data from the computer, as well as prevent any unauthorized users from using the computer to access the network. Removing the employee's network access can be done by deleting or disabling the user account, revoking the credentials, or changing the permissions.

The other options are not as effective or necessary as removing the employee's network access. They are:

- Disabling DHCP on the computer being removed will prevent the computer from obtaining an IP address from the network, but it will not prevent the computer from using a static IP address or accessing the network through another device.
- Placing the switch port in a private VLAN will isolate the computer from other devices on the network, but it will not prevent the computer from accessing the network through another port or device.
- Applying a firewall rule to block the computer's IP address will prevent the computer from communicating with the network, but it will not prevent the computer from changing its IP address or accessing the network through another device.

References

- 1: CompTIA Network+ N10-008 Cert Guide - O'Reilly Media
- 2: Network+ (Plus) Certification | CompTIA IT Certifications
- 3: 10 Ways to Secure Office Workstations - Computer Security

#### NEW QUESTION 171

- (Topic 3)

When accessing corporate network resources, users are required to authenticate to each application they try to access. Which of the following concepts does this BEST represent?

- A. SSO
- B. Zero Trust
- C. VPN
- D. Role-based access control

Answer: B

#### NEW QUESTION 174

- (Topic 3)

A customer has an attached USB printer that needs to be shared with other users. The desktop team set up printer sharing. Now, the network technician needs to obtain the necessary information about the PC and share it with other users so they can connect to the printer. Which of the following commands should the

technician use to get the required information? (Select TWO).

- A. arp
- B. route
- C. netstat
- D. tcpdump
- E. hostname
- F. ipconfig

**Answer:** EF

**Explanation:**

The hostname and ipconfig commands should be used to get the required information about the PC and share it with other users so they can connect to the printer. The hostname command displays the name of the computer on a network. The ipconfig command displays the IP configuration of the computer, including its IP address, subnet mask, default gateway, and DNS servers. These information are necessary for other users to locate and connect to the shared printer on the network. For example, other users can use the UNC path \\hostname\printername or \\ipaddress\printername to access the shared printer. References: [CompTIA Network+ Certification Exam Objectives], How to Share a Printer in Windows 10

**NEW QUESTION 177**

- (Topic 3)

A network administrator is troubleshooting a connection to a remote site. The administrator runs a command and sees the following output:

```
Tracing route to 10.10.0.22 over a maximum of 30 hops:
 0  14ms  20ms  15ms  192.168.1.253
 1  10ms  15ms  12ms  172.16.0.21
 2  5ms   10ms  10ms  10.10.5.3
 3  10ms  15ms  12ms  10.12.2.1
 4  5ms   10ms  10ms  10.10.5.3
 5  10ms  15ms  12ms  10.12.2.1
 6  5ms   10ms  10ms  10.10.5.3
 7  10ms  15ms  12ms  10.12.2.1
```

Which of the following is the cause of the connection issue?

- A. Routing loop
- B. Asymmetrical routing
- C. Broadcast storm
- D. Switching loop

**Answer:** A

**Explanation:**

The cause of the connection issue is a routing loop. A routing loop is a situation where a packet is forwarded in circles between routers, never reaching its destination. A routing loop can be caused by misconfigured or inconsistent routing tables, or by routing protocols that do not update their information properly. A routing loop can be detected by using the traceroute command, which shows the path taken by a packet from the source to the destination. The traceroute output in the image shows that the packet is bouncing back and forth between two routers, 10.12.2.1 and 10.12.2.2, indicating a routing loop. References: CompTIA Network+ N10-008 Certification Study Guide, page 181; The Official CompTIA Network+ Student Guide (Exam N10-008), page 7-9.

**NEW QUESTION 178**

- (Topic 3)

After a company installed a new IPS, the network is experiencing speed degradation. A network administrator is troubleshooting the issue and runs a speed test. The results from the different network locations are as follows:

Which of the following is the most likely issue?

- A. Packet loss
- B. Bottlenecking
- C. Channel overlap
- D. Network congestion

**Answer:** B

**Explanation:**

The most likely issue is bottlenecking. Bottlenecking occurs when a component or device limits the performance or capacity of the network. In this case, the IPS (intrusion prevention system) may be causing a bottleneck by inspecting and filtering the incoming and outgoing traffic, which reduces the speed and bandwidth available for the network devices.

To confirm this issue, the network administrator can compare the speed test results before and after installing the IPS, and check the IPS configuration and logs for any errors or warnings. The network administrator can also try to bypass the IPS temporarily and run the speed test again to see if there is any improvement.

If the IPS is indeed the cause of the bottleneck, the network administrator can try to optimize the IPS settings, such as adjusting the inspection rules, thresholds, and priorities, to reduce the processing overhead and latency. Alternatively, the network administrator can upgrade the IPS hardware or software, or add more IPS devices to balance the load and increase the throughput.

1: What is Network Congestion? Common Causes and How to Fix Them? -

GeeksforGeeks 2: Network congestion - Wikipedia 3: How to Fix Packet Loss - Lifewire 4: How to Optimize Your IPS Performance - Cisco 5: How to Avoid Network Bottlenecks - TechRepublic

**NEW QUESTION 180**

- (Topic 3)

Which of the following types of connections would need to be set up to provide access from the internal network to an external network so multiple satellite offices can communicate securely using various ports and protocols?

- A. Client-to-site VPN
- B. Clientless VPN
- C. RDP
- D. Site-to-site VPN
- E. SSH

**Answer:** D

#### NEW QUESTION 185

- (Topic 3)

Which of the following is most likely responsible for the security and handling of personal data in Europe?

- A. GDPR
- B. SCADA
- C. SAML
- D. PCI DSS

**Answer:** A

#### Explanation:

GDPR stands for General Data Protection Regulation, which is a European Union regulation on information privacy and security. It applies to any organization that collects or processes personal data of individuals in the EU, and it sets out rules and requirements for data protection, consent, breach notification, and enforcement<sup>1</sup>

References<sup>1</sup>: [https://en.wikipedia.org/wiki/General\\_Data\\_Protection\\_Regulation](https://en.wikipedia.org/wiki/General_Data_Protection_Regulation)

#### NEW QUESTION 190

- (Topic 3)

Which of the following is MOST appropriate for enforcing bandwidth limits when the performance of an application is not affected by the use of buffering but is heavily impacted by packet drops?

- A. Traffic shaping
- B. Traffic policing
- C. Traffic marking
- D. Traffic classification

**Answer:** B

#### Explanation:

Traffic policing is a mechanism that monitors the traffic in any network and enforces a bandwidth limit by discarding packets that exceed a certain rate<sup>1</sup>. This can reduce congestion and ensure fair allocation of bandwidth among different applications or users. However, discarding packets can also affect the performance and quality of some applications, especially those that are sensitive to packet loss, such as voice or video. Traffic shaping is a congestion control mechanism that delays packets that exceed a certain rate instead of discarding them<sup>1</sup>. This can smooth out traffic bursts and avoid packet loss, but it also introduces latency and jitter. Traffic shaping can be beneficial for applications that can tolerate some delay but not packet loss, such as file transfers or streaming.

Traffic marking is a mechanism that assigns different priority levels to packets based on their type, source, destination, or other criteria<sup>2</sup>. This can help to differentiate between different classes of service and apply different policies or treatments to them. However, traffic marking does not enforce bandwidth limits by itself; it only provides information for other mechanisms to act upon.

Traffic classification is a process that identifies and categorizes packets based on their characteristics, such as protocol, port number, payload, or behavior. This can help to distinguish between different types of traffic and apply appropriate policies or actions to them. However, traffic classification does not enforce bandwidth limits by itself; it only provides input for other mechanisms to use.

#### NEW QUESTION 191

- (Topic 3)

Which of the following protocols should be used when Layer 3 availability is of the highest concern?

- A. LACP
- B. LDAP
- C. FHRP
- D. DHCP

**Answer:** C

#### Explanation:

FHRP stands for First Hop Redundancy Protocol, which is a group of protocols that allow routers or switches to provide backup or failover for the default gateway in a network. FHRP ensures that the network traffic can reach its destination even if the primary gateway fails or becomes unavailable. Some examples of FHRP protocols are HSRP, VRRP, and GLBP.

References

? 1: CompTIA Network+ N10-008 Exam Subnetting Quiz, question 18

? 2: CompTIA Network+ N10-008 Certification Practice Test, question 9

? 3: CompTIA Network+ Study Guide: Exam N10-008, 5th Edition, page 263

? 4: CompTIA Network+ (N10-008) Practice Exam w/PBQ & Solution, question 5

? 5: What's on the CompTIA Network+ 008 certification? | CompTIA, section 3.1

#### NEW QUESTION 193

- (Topic 3)

A company has been added to an unapproved list because of spam. The network administrator confirmed that a workstation was infected by malware. Which of the following processes did the administrator use to identify the root cause?

- A. Traffic analysis
- B. Availability monitoring

- C. Baseline metrics
- D. Network discovery

**Answer:** A

**Explanation:**

One possible process that the administrator used to identify the root cause of the spam issue is traffic analysis. Traffic analysis is a technique that monitors and analyzes the network traffic that flows between devices or applications. Traffic analysis can help troubleshoot network problems by identifying the source, destination, volume, frequency, and content of the network packets<sup>12</sup>.

To use traffic analysis to identify the root cause of the spam issue, the administrator could follow these steps:

- ? Install a traffic analysis tool on the server or a device that is connected to the same network as the server, such as Wireshark<sup>3</sup>, tcpdump<sup>4</sup>, or Microsoft Network Monitor<sup>5</sup>.
- ? Start capturing the network traffic and filter it by using the IP address or hostname of the server, or by using a specific port or protocol that is used by the email service, such as SMTP (port 25), POP3 (port 110), or IMAP (port 143).
- ? Analyze the filtered traffic and look for any signs of abnormal or malicious activity, such as high volume of outgoing emails, unknown recipients, suspicious attachments, or spam keywords.
- ? Trace back the source of the spam emails to the infected workstation by using its IP address or MAC address.
- ? Isolate and clean up the infected workstation by using an antivirus or malware removal tool.

The other options are not processes that the administrator used to identify the root cause of the spam issue. Availability monitoring is a technique that measures and reports the uptime and downtime of a network device or service. Availability monitoring can help troubleshoot network problems by detecting any failures or outages that affect the network performance. Baseline metrics are a set of standard measurements that establish the normal behavior or performance of a network device or service. Baseline metrics can help troubleshoot network problems by comparing the current state of the network with the expected state and identifying any deviations or anomalies. Network discovery is a technique that scans and maps the network devices and services that are connected to a network. Network discovery can help troubleshoot network problems by providing a comprehensive and updated view of the network topology and configuration.

**NEW QUESTION 198**

- (Topic 3)

Which of the following security controls indicates unauthorized hardware modifications?

- A. Biometric authentication
- B. Media device sanitization
- C. Change management policy
- D. Tamper-evident seals

**Answer:** A

**NEW QUESTION 200**

- (Topic 3)

A network technician is responding to an issue with a local company. To which of the following documents should the network technician refer to determine the scope of the issue?

- A. MTTR
- B. MOU
- C. NDA
- D. SLA

**Answer:** D

**Explanation:**

SLA stands for Service Level Agreement, and it is a contract that defines the expectations and responsibilities between a service provider and a customer. SLA can specify the quality, availability, and performance metrics of the service, as well as the penalties for non-compliance and the procedures for resolving issues. SLA can help the network technician determine the scope of the issue by providing the baseline and target values for the service, the escalation process and contacts, and the service credits or remedies for the customer<sup>45</sup>.

CompTIA Network+ N10-008 Cert Guide - Chapter 15: Network Troubleshooting Methodology<sup>35</sup>: What is a Service Level Agreement (SLA)? | ITIL | AXELOS

**NEW QUESTION 205**

- (Topic 3)

A technician is configuring a static IP address on a new device in a newly created subnet. The work order specifies the following requirements:

- The IP address should use the highest address available in the subnet.
- The default gateway needs to be set to 172.28.85.94.
- The subnet mask needs to be 255.255.255.224.

Which of the following addresses should the engineer apply to the device?

- A. 172.28.85.93
- B. 172.28.85.95
- C. 172.28.85.254
- D. 172.28.85.255

**Answer:** A

**Explanation:**

<https://www.tunnelsup.com/subnet-calculator/>  
IP Address: 172.28.85.95/27 Netmask: 255.255.255.224  
Network Address: 172.28.85.64  
Usable Host Range: 172.28.85.65 - 172.28.85.94  
Broadcast Address: 172.28.85.95

**NEW QUESTION 207**

- (Topic 3)

Which of the following is a valid alternative to maintain a deployed proxy technology while saving physical space in the data center by moving the network service to the virtualization infrastructure?

- A. NFV
- B. SDWAN
- C. Networking as code
- D. VIP

**Answer:** A

**Explanation:**

The valid alternative to maintain a deployed proxy technology while saving physical space in the data center by moving the network service to the virtualization infrastructure is NFV (Network Function Virtualization). NFV is a technique that allows network functions, such as proxies, firewalls, routers, or load balancers, to be implemented as software applications running on virtual machines or containers. NFV reduces the need for dedicated hardware devices and improves scalability and flexibility of network services. References: CompTIA Network+ N10-008 Certification Study Guide, page 440; The Official CompTIA Network+ Student Guide (Exam N10-008), page 16-11.

NFV can be used to virtualize a wide variety of network functions, including proxy servers. By virtualizing proxy servers, organizations can save physical space in the data center and improve the scalability and efficiency of their networks.

To virtualize a proxy server using NFV, an organization would need to deploy a virtualization platform, such as VMware ESXi or Microsoft Hyper-V. The organization would then need to install a virtual proxy server appliance on the virtualization platform.

Once the virtual proxy server appliance is installed, it can be configured and used just like a physical proxy server.

NFV is a relatively new technology, but it is quickly gaining popularity as organizations look for ways to improve the efficiency and scalability of their networks.

**NEW QUESTION 211**

- (Topic 3)

A network deployment engineer is deploying a new single-channel 10G optical connection. Which of the following optics should the engineer MOST likely use to satisfy this requirement?

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

**Answer:** D

**Explanation:**

SFP+ is a type of optical transceiver that supports 10G single-channel transmission over fiber optic cables. SFP+ stands for small form-factor pluggable plus, and it is compatible with SFP slots on switches and routers.

**NEW QUESTION 215**

- (Topic 3)

A network administrator is setting up a new phone system and needs to define the location where VoIP phones can download configuration files. Which of the following DHCP services can be used to accomplish this task?

- A. Scope options
- B. Exclusion ranges
- C. Lease time
- D. Relay

**Answer:** A

**Explanation:**

To define the location where VoIP phones can download configuration files, the network administrator can use scope options within the Dynamic Host Configuration Protocol (DHCP) service. Scope options are a set of values that can be configured within a DHCP scope, which defines a range of IP addresses that can be leased to clients on a network. One of the scope options that can be configured is the option for the location of the configuration file server, which specifies the URL or IP address of the server where the configuration files can be downloaded.

<https://pbxbook.com/voip/dhccpfg.html>

**NEW QUESTION 216**

- (Topic 3)

A network administrator wants to know which systems on the network are at risk of a known vulnerability. Which of the following should the administrator reference?

- A. SLA
- B. Patch management policy
- C. NDA
- D. Site survey report
- E. CVE

**Answer:** E

**Explanation:**

A Common Vulnerabilities and Exposures (CVE) is a publicly available database of known security vulnerabilities and exposures that affect various software and hardware products. A CVE entry provides a standardized identifier, a brief description, and references to related sources of information for each vulnerability or exposure. A network administrator can reference the CVE database to check if any of the systems on the network are affected by a known vulnerability, and if so, what are the potential impacts and mitigations.

A Service Level Agreement (SLA) is a contract between a service provider and a customer that defines the expected level and quality of service, such as availability, performance, and security. An SLA does not provide information on specific vulnerabilities or exposures affecting the systems or services.

A Patch Management Policy is a set of rules and procedures that govern how patches are applied to systems and software to fix bugs, improve functionality, or address security issues. A patch management policy can help prevent or reduce the risk of vulnerabilities or exposures, but it does not provide information on specific vulnerabilities or exposures affecting the systems or software.

A Non-Disclosure Agreement (NDA) is a legal contract between two or more parties that prohibits the disclosure of confidential or proprietary information to unauthorized parties. An NDA does not provide information on specific vulnerabilities or exposures affecting the systems or information.

A Site Survey Report is a document that summarizes the results of a physical inspection and assessment of a network site, such as the layout, infrastructure, equipment, and environmental conditions. A site survey report can help identify and resolve potential network issues, such as interference, signal strength, or coverage, but it does not provide information on specific vulnerabilities or exposures affecting the network devices or software.

References

What is CVE?

What is a Service Level Agreement (SLA)? Guide to Enterprise Patch Management Planning

NDA, MSA, SOW and SLA. Confidentiality agreements when you outsource QA Site Survey Report

#### NEW QUESTION 217

- (Topic 3)

A network technician is troubleshooting a connection to a web server. The Technician Is unable to ping the server but is able to verify connectivity to the web service using Tenet. Which of the following protocols is being blocked by me firewall?

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

**Answer: C**

#### Explanation:

ICMP (Internet Control Message Protocol) is a protocol that is used to send error and control messages between network devices, such as ping requests and replies. ICMP is being blocked by the firewall, which prevents the network technician from pinging the web server. TCP (Transmission Control Protocol) is a protocol that provides reliable and ordered delivery of data between network devices, such as web service requests and responses using HTTP (Hypertext Transfer Protocol). TCP is not being blocked by the firewall, which allows the network technician to verify connectivity to the web service using Telnet. UDP (User Datagram Protocol) is a protocol that provides fast and efficient delivery of data between network devices, but does not guarantee reliability or order. UDP is used for applications such as streaming media or online gaming. ARP (Address Resolution Protocol) is a protocol that resolves IP addresses to MAC addresses on a local network. References: [CompTIA Network+ Certification Exam Objectives], Domain 2.0 Networking Concepts, Objective 2.1: Compare and contrast OSI and TCP/IP models, Subobjective: TCP/IP model layers (Application/Transport/Internet/Network Interface)

#### NEW QUESTION 222

- (Topic 3)

An engineer needs to verify the external record for SMTP traffic. The engineer logged in to the server and entered the nslookup command. Which of the following commands should the engineer send before entering the DNS name?

- A. set type=A
- B. is -d company-mail.com
- C. set domain=company.mail.com
- D. set querytype=Mx

**Answer: D**

#### NEW QUESTION 227

- (Topic 3)

An infrastructure company is implementing a cabling solution to connect sites on multiple continents. Which of the following cable types should the company use for this project?

- A. Cat 7
- B. Single-mode
- C. Multimode
- D. Cat 6

**Answer: B**

#### Explanation:

Single-mode fiber is a type of optical fiber that has a small core diameter and allows only one mode of light to propagate. This reduces signal attenuation and increases transmission distance, making it suitable for long-distance communication networks.

Single-mode fiber can carry data over thousands of kilometers without requiring repeaters or amplifiers. Single-mode fiber is also immune to electromagnetic interference and has a higher bandwidth than multimode fiber. Therefore, single-mode fiber is the best cable type for connecting sites on multiple continents.

References: [CompTIA Network+ Certification Exam Objectives], [Single-mode optical fiber - Wikipedia]

Single-mode fiber optic cable uses a single ray of light to transmit data. This allows it to achieve very low attenuation and high bandwidth.

Multimode fiber optic cable uses multiple rays of light to transmit data. This results in higher attenuation and lower bandwidth than single-mode cable.

Twisted pair copper cable uses two insulated copper wires to transmit data. It is less expensive than fiber optic cable, but it has higher attenuation and lower bandwidth. When choosing a cable type for a long-distance application, it is important to consider the following factors:

? Attenuation: The amount of signal loss that occurs over the length of the cable.

? Bandwidth: The amount of data that can be transmitted over the cable per second.

? Cost: The cost of the cable and installation.

Single-mode fiber optic cable is the best choice for long-distance applications because it

has the lowest attenuation and highest bandwidth of any cable type. However, it is also the most expensive cable type.

#### NEW QUESTION 232

- (Topic 3)

A network engineer is installing hardware in a newly renovated data center. Major concerns that were addressed during the renovation included air circulation, building power redundancy, and the need for continuous monitoring. The network engineer IS creating alerts based on the following operation specifications:

AC input voltage	100 to 240VAC
AC maximum input current	<2.7A at 100V
Redundant power supply	Yes
Operating temperature	32–104°F (0–40°C)
Storage temperature	-4–149°F (-20–65°C)
Operating humidity	10–85%
Storage humidity	5–95%

Which of the following should the network engineer configure?

- A. Environmental monitoring alerts for humidity greater than 95%
- B. SIEM to parse syslog events for a failed power supply
- C. SNMP traps to report when the chassis temperature exceeds 95°F (35°C)
- D. UPS monitoring to report when input voltage drops below 220VAC

**Answer: C**

**Explanation:**

The alert that the network engineer should configure based on the operation specifications is SNMP traps to report when the chassis temperature exceeds 95°F (35°C). SNMP (Simple Network Management Protocol) is a protocol that allows network devices to communicate their status and performance information to a central management system, called an SNMP manager. SNMP traps are messages that are sent by network devices to notify the SNMP manager of an event or condition that requires attention, such as an error, a failure, or a threshold violation. In this case, the network engineer should configure SNMP traps on the network devices to send an alert when their chassis temperature exceeds 95°F (35°C), which is the maximum operating temperature specified in the table. This alert would help the network engineer monitor and troubleshoot any overheating issues that could affect the network performance or availability. References: CompTIA Network+ N10-008 Certification Study Guide, page 228; The Official CompTIA Network+ Student Guide (Exam N10-008), page 8-11.

**NEW QUESTION 237**

- (Topic 3)

Which of the following allows for an devices within a network to share a highly reliable time source?

- A. NTP
- B. SNMP
- C. SIP
- D. DNS

**Answer: A**

**Explanation:**

Network Time Protocol (NTP) is a protocol used to maintain a highly accurate and reliable clock time on all devices within a network. NTP works by synchronizing the time of all the devices within a network to a single, highly accurate time source. This allows for the time of all the devices to be kept in sync with each other, ensuring a consistent and reliable time source for all devices within the network.

**NEW QUESTION 239**

- (Topic 3)

To comply with an industry regulation, all communication destined to a secure server should be logged and archived on a storage device. Which of the Mowing can be configured to fulfill this requirement?

- A. QoS traffic classification
- B. Port mirroring
- C. Flow control
- D. Link Aggregation Control Protocol

**Answer: B**

**NEW QUESTION 242**

- (Topic 3)

Which of the following types of data center architectures will MOST likely be used in a large SDN and can be extended beyond the data center?

- A. iSCSI
- B. FCoE
- C. Three-tiered network
- D. Spine and leaf
- E. Top-of-rack switching

**Answer: D**

**Explanation:**

The type of data center architecture that will most likely be used in a large SDN and can be extended beyond the data center is spine and leaf. Spine and leaf is a network topology that consists of two layers of switches: spine switches and leaf switches. Spine switches are interconnected to each other and form the core of the network, while leaf switches are connected to each spine switch and form the access layer of the network. Spine and leaf topology provides high scalability, performance, and flexibility for data center networks, especially for SDN (Software Defined Networking) environments that require dynamic traffic flows and virtualization. References: CompTIA Network+ N10-008 Certification Study Guide, page 16; The Official CompTIA Network+ Student Guide (Exam N10-008), page 1-9.

#### NEW QUESTION 243

- (Topic 3)

A company wants to invest in new hardware for the core network infrastructure. The management team requires that the infrastructure be capable of being repaired in less than 60 minutes if any major part fails. Which of the following metrics is MOST likely associated with this requirement?

- A. RPO
- B. MTTR
- C. FHRP
- D. MTBF

**Answer: B**

#### Explanation:

MTTR is directly related to how quickly a system can be repaired if any major part fails. The management team requires that the infrastructure be capable of being repaired in less than 60 minutes, which means they have a low MTTR requirement.

MTTR stands for Mean Time To Repair and is a metric used to measure the average amount of time it takes to repair a failed component or system. In this case, the requirement is for the infrastructure to be capable of being repaired in less than 60 minutes if any major part fails, which means the MTTR should be less than 60 minutes.

#### NEW QUESTION 246

- (Topic 3)

A network technician needs to use an RFC1918 IP space for a new office that only has a single public IP address. Which of the following subnets should the technician use for the LAN?

- A. 10.10.10.0/24
- B. 127.16.10.0/24
- C. 174.16.10.0/24
- D. 198.18.10.0/24

**Answer: A**

#### Explanation:

The RFC1918 IP space is a set of private IP addresses that are not routable on the public Internet and can be used for internal networks. The RFC1918 IP space consists of three ranges: 10.0.0.0/8, 172.16.0.0/12, and 192.168.0.0/16. Out of the four options, only A. 10.10.10.0/24 belongs to one of these ranges, specifically the 10.0.0.0/8 range. Therefore, the technician should use this subnet for the LAN.

References1: [https://en.wikipedia.org/wiki/Private\\_network](https://en.wikipedia.org/wiki/Private_network)

#### NEW QUESTION 250

- (Topic 3)

A user from a remote office is reporting slow file transfers. Which of the following tools will an engineer MOST likely use to get detailed measurement data?

- A. Packet capture
- B. IPerf
- C. SIEM log review
- D. Internet speed test

**Answer: B**

#### Explanation:

An engineer will most likely use IPerf to get detailed measurement data about the user's slow file transfers. IPerf is a tool used for measuring network performance and bandwidth, and it can be used to measure the speed and throughput of file transfers from the remote office. It can also provide detailed information about the latency and jitter of the connection, which can be used to troubleshoot the slow file transfers. Reference: CompTIA Network+ Study Manual (Chapter 10, Page 214).

#### NEW QUESTION 252

- (Topic 3)

A network technician is having issues connecting an IoT sensor to the internet. The WLAN settings were enabled via a custom command line, and a proper IP address assignment was received on the wireless interface. However, when trying to connect to the internet, only HTTP redirections are being received when data is requested. Which of the following will point to the root cause of the issue?

- A. Verifying if an encryption protocol mismatch exists.
- B. Verifying if a captive portal is active for the WLAN.
- C. Verifying the minimum RSSI for operation in the device's documentation
- D. Verifying EIRP power settings on the access point.

**Answer: C**

#### Explanation:

A captive portal is a web page that is displayed to a user before they can access the internet or other network resources. This is often used in public or guest networks to present users with a login or terms and conditions page before they can access the internet. If a captive portal is active on the WLAN, it would explain why the IoT sensor is only receiving HTTP redirections when trying to connect to the internet.

#### NEW QUESTION 255

- (Topic 3)

A user took a laptop on a trip and made changes to the network parameters while at the airport. The user can access all internet websites but not corporate intranet websites. Which of the following is the most likely cause of the issue?

- A. Duplicate IP address
- B. Duplicate SSID

- C. Incorrect DNS
- D. Incorrect subnet mask

**Answer: C**

**Explanation:**

DNS (Domain Name System) is a service that translates domain names into IP addresses. Corporate intranet websites are usually hosted on private IP addresses that are not accessible from the public internet. Therefore, the user's laptop needs to use the correct DNS server that can resolve the intranet domain names to the private IP addresses. If the user changed the network parameters at the airport and did not revert them back, the laptop might be using a public DNS server that does not have the records for the intranet websites. This would cause the user to access all internet websites but not corporate intranet websites.

References:

- ? An Overview of DNS - N10-008 CompTIA Network+ : 1.61
- ? DNS Configuration – CompTIA A+ 220-11012
- ? CompTIA Network+ Certification Exam Objectives, page 53

**NEW QUESTION 258**

- (Topic 3)

A network technician is attempting to increase throughput by configuring link port aggregation between a Gigabit Ethernet distribution switch and a Fast Ethernet access switch. Which of the following is the BEST choice concerning speed and duplex for all interfaces that are participating in the link aggregation?

- A. Half duplex and 1GB speed
- B. Full duplex and 1GB speed
- C. Half duplex and 100MB speed
- D. Full duplex and 100MB speed

**Answer: B**

**Explanation:**

The best choice for configuring link port aggregation between a Gigabit Ethernet distribution switch and a Fast Ethernet access switch is to use full duplex and 1GB speed for all interfaces that are participating in the link aggregation. This will allow for maximum throughput, as the full duplex connection will enable simultaneous sending and receiving of data, and the 1GB speed will ensure that the data is transferred quickly. According to the CompTIA Network+ Study Guide, "Full-duplex Ethernet allows the network adapter to transmit and receive data simultaneously, which can result in double the bandwidth of half-duplex Ethernet." Additionally, the official text states, "Ethernet and Fast Ethernet use different speeds for data transmission, with Ethernet being 1,000 megabits (1 gigabit) per second and Fast Ethernet being 100 megabits per second."

**NEW QUESTION 261**

- (Topic 3)

A network administrator is reviewing the following metrics from a network management system regarding a switchport. The administrator suspects an issue because users are calling in regards to the switchport's performance:

Metric	Value
Uptime	201 days, 3 hours, 18 minutes
MDIX	On
CRCs	0
Giants	2508
Output queue maximum	40
Packets input	136208849
Packets output	64458087024

Based on the information in the chart above, which of the following is the cause of these performance issues?

- A. The connected device is exceeding the configured MTU.
- B. The connected device is sending too many packets
- C. The switchport has been up for too long
- D. The connected device is receiving too many packets.
- E. The switchport does not have enough CRCs

**Answer: A**

**NEW QUESTION 266**

- (Topic 3)

A company is designing a SAN and would like to use STP as its medium for communication. Which of the following protocols would BEST suit the company's needs?

- A. SFTP
- B. Fibre Channel
- C. iSCSI
- D. FTP

**Answer: B**

**Explanation:**

A SAN also employs a series of protocols enabling software to communicate or prepare data for storage. The most common protocol is the Fibre Channel Protocol (FCP), which maps SCSI commands over FC technology. The iSCSI SANs will employ an iSCSI protocol that maps SCSI commands over TCP/IP.

STP (Spanning Tree Protocol) is a protocol used to prevent loops in Ethernet networks, and it is not a medium for communication in a storage area network (SAN). However, Fibre Channel is a protocol that is specifically designed for high-speed data transfer in SAN environments. It is a dedicated channel technology that provides high throughput and low latency, making it ideal for SANs. Therefore, Fibre Channel would be the best protocol for the company to use for its SAN. SFTP (Secure File Transfer Protocol), iSCSI (Internet Small Computer System Interface), and FTP (File Transfer Protocol) are protocols used for transferring files over a network and are not suitable for use in a SAN environment.

#### NEW QUESTION 268

- (Topic 3)

A user reports that a new VoIP phone works properly, but the computer that is connected to the phone cannot access any network resources. Which of the following MOST likely needs to be configured correctly to provide network connectivity to the computer?

- A. Port duplex settings
- B. Port aggregation
- C. ARP settings
- D. VLAN tags
- E. MDIX settings

**Answer: A**

#### NEW QUESTION 273

- (Topic 3)

Which of the following should a network administrator configure when adding OT devices to an organization's architecture?

- A. Honeynet
- B. Data-at-rest encryption
- C. Time-based authentication
- D. Network segmentation

**Answer: D**

#### Explanation:

Network segmentation is the process of dividing a network into smaller subnets or segments, each with its own security policies and access controls. This can help isolate OT devices from IT devices, guest networks, and other potential threats, as well as improve network performance and efficiency. Network segmentation is a recommended security practice for OT environments, as it can limit the attack surface, contain the damage of a breach, and comply with regulatory standards.  
<https://sectrio.com/complete-guide-to-ot-network-segmentation/>

#### NEW QUESTION 275

- (Topic 3)

To access production applications and data, developers must first connect remotely to a different server. From there, the developers are able to access production data. Which of the following does this BEST represent?

- A. A management plane
- B. A proxy server
- C. An out-of-band management device
- D. A site-to-site VPN
- E. A jump box

**Answer: E**

#### NEW QUESTION 277

- (Topic 3)

A company's web server is hosted at a local ISP. This is an example of:

- A. allocation.
- B. an on-premises data center.
- C. a branch office.
- D. a cloud provider.

**Answer: D**

#### NEW QUESTION 281

- (Topic 3)

Which of the following protocols uses Dijkstra's algorithm to calculate the LOWEST cost between routers?

- A. RIP
- B. OSPF
- C. BGP
- D. EIGRP

**Answer: B**

#### Explanation:

OSPF stands for Open Shortest Path First and is a link-state routing protocol that uses Dijkstra's algorithm to calculate the lowest cost between routers. OSPF assigns a cost value to each link based on factors such as bandwidth, delay, or reliability, and builds a map of the network topology. OSPF then uses Dijkstra's algorithm to find the shortest path from each router to every other router in the network. RIP stands for Routing Information Protocol and is a distance-vector routing protocol that uses hop count as the metric to find the best path. BGP stands for Border Gateway Protocol and is a path-vector routing protocol that uses attributes such as AS path, local preference, or origin to select the best route. EIGRP stands for Enhanced Interior Gateway Routing Protocol and is a hybrid routing protocol that uses a composite metric based on bandwidth, delay, load, and reliability.

References: 1 Dijkstra's algorithm - Wikipedia ([https://en.wikipedia.org/wiki/Dijkstra%27s\\_algorithm](https://en.wikipedia.org/wiki/Dijkstra%27s_algorithm))

**NEW QUESTION 286**

- (Topic 3)

A company has a geographically remote office concern for this type of connection?

- A. Duplex
- B. Collisions
- C. Jitter
- D. Encapsulation

**Answer: C**

**Explanation:**

Jitter is the variation in the delay of packets arriving at a destination. Jitter can cause problems for real-time applications, such as voice and video, that require consistent and smooth delivery of packets. A geographically remote office that connects to the main office via a WAN link may experience high jitter due to factors such as network congestion, routing changes, or link quality. Jitter can be reduced by using quality of service (QoS) mechanisms that prioritize and shape traffic according to its importance and sensitivity. References: [CompTIA Network+ Certification Exam Objectives], What is Jitter? | Network Jitter Explained | SolarWinds

**NEW QUESTION 288**

- (Topic 3)

A company is undergoing expansion but does not have sufficient rack space in its data center. Which of the following would be BEST to allow the company to host its new equipment without a major investment in facilities?

- A. Using a colocation service
- B. Using available rack space in branch offices
- C. Using a flat network topology
- D. Reorganizing the network rack and installing top-of-rack switching

**Answer: A**

**Explanation:**

A colocation service is a service that provides rack space, power, cooling, security, and connectivity for a company's network equipment in a data center. A colocation service can be used when a company does not have sufficient rack space in its own data center and does not want to invest in building or expanding its own facilities. By using a colocation service, a company can host its new equipment in a professional and reliable environment without a major investment in facilities. References: <https://www.comptia.org/training/books/network-n10-008-study-guide> (page 414)

**NEW QUESTION 291**

- (Topic 3)

A network technician receives a report from the server team that a server's network connection is not working correctly. The server team confirms the server is operating correctly except for the network connection. The technician checks the switchport connected to the server and reviews the following data;

Metric	Value
Bytes input	441,164,698
Bytes output	2,625,115,257
Runts	0
CRCs	5,489
Collisions	1
MDIX	On
Speed	1,000
Duplex	Full

Which of the following should the network technician perform to correct the issue?

- A. Replace the Cat 5 patch cable with a Cat 6 cable
- B. Install a crossover cable between the server and the switch
- C. Reset the switchport configuration.
- D. Use NetFlow data from the switch to isolate the issue.
- E. Disable MDIX on the switchport and reboot the server.

**Answer: A**

**Explanation:**

"Bad cables, incorrect pinouts, or bent pins: Faulty cables (with electrical characteristics preventing successful transmission) or faulty connectors (which do not properly make connections) can prevent successful data transmission at Layer 1. A bad cable could simply be an incorrect category of cable being used for a specific purpose. For example, using a Cat 5 cable (instead of a Cat 6 or higher cable) to connect two 1000BASE-TX devices would result in data corruption. Bent pins in a connector or incorrect pinouts could also cause data to become corrupted."

**NEW QUESTION 296**

- (Topic 3)

A network administrator is investigating a network event that is causing all communication to stop. The network administrator is unable to use SSH to connect to the switch but is able to gain access using the serial console port. While monitoring port statistics, the administrator sees the following:

Total Rx (bps)	23,041,464	Total Tx (bps)	621,032
Unicast Rx (Pkts/sec)	102,465	Unicast Tx (Pkts/sec)	66
B/Mcast Rx (Pkts/sec)	21,456.465	B/Mcast Tx (Pkts/sec)	7
Utilization Rx	2.3%	Utilization Tx	0.06%

Which of the following is MOST likely causing the network outage?

- A. Duplicate IP address
- B. High collisions
- C. Asynchronous route
- D. Switch loop

**Answer: B**

#### NEW QUESTION 297

- (Topic 3)

Which of the following is the primary function of the core layer of the three-tiered model?

- A. Routing
- B. Repeating
- C. Bridging
- D. Switching

**Answer: A**

#### Explanation:

<https://www.omniseccu.com/cisco-certified-network-associate-ccna/three-tier-hierarchical-network-model.php>

Core Layer consists of biggest, fastest, and most expensive routers with the highest model numbers and Core Layer is considered as the back bone of networks. Core Layer routers are used to merge geographically separated networks. The Core Layer routers move information on the network as fast as possible. The switches operating at core layer switches packets as fast as possible.

#### NEW QUESTION 299

- (Topic 3)

A network technician must connect a newly installed access switch in a warehouse to the distribution switch in the telecommunications closet. The distance between the two switches is 1,640ft (500m). Which of the following is the best cable choice?

- A. Fiber
- B. Cat 5e
- C. Cat 6a
- D. Coaxial

**Answer: A**

#### Explanation:

Fiber is the best cable choice for long distances, as it can transmit data over 1,640ft (500m) without significant signal loss or interference. Fiber is also immune to electromagnetic interference and can support higher bandwidths than copper cables. Cat 5e and Cat 6a are copper cables that have a maximum distance of 328ft (100m) for Ethernet networks. Coaxial cable is also a copper cable that can reach longer distances, but it is mainly used for cable TV and not for Ethernet networks.

#### NEW QUESTION 302

- (Topic 3)

A network engineer is investigating reports of poor performance on a videoconferencing application. Upon reviewing the report, the engineer finds that available bandwidth at the WAN connection is low.

Which Of the following is the MOST appropriate mechanism to handle this issue?

- A. Traffic shaping
- B. Flow control
- C. NetFlow
- D. Link aggregation

**Answer: A**

#### Explanation:

Traffic shaping is a congestion management method that regulates network data transfer by delaying the flow of less important or less desired packets. Traffic shaping can help to improve the performance of a videoconferencing application by prioritizing its packets over other types of traffic and smoothing out traffic bursts. Traffic shaping can also help to avoid packet loss and ensure fair allocation of bandwidth among different applications or users. Flow control is a mechanism that prevents a sender from overwhelming a receiver with more data than it can handle. Flow control can help to avoid buffer overflow and data loss, but it does not prioritize different types of traffic or smooth out traffic bursts. Flow control operates at the data link layer or the transport layer, while traffic shaping

operates at the network layer or above.

NetFlow is a protocol that collects and analyzes network traffic data for monitoring and troubleshooting purposes. NetFlow can help to identify the sources, destinations, volumes, and types of traffic on a network, but it does not regulate or shape the traffic flow. NetFlow operates at the network layer or above.

Link aggregation is a technique that combines multiple physical links into one logical link for increased bandwidth, redundancy, and load balancing. Link aggregation can help to improve the performance of a videoconferencing application by providing more available bandwidth at the WAN connection, but it does not prioritize different types of traffic or smooth out traffic bursts. Link aggregation operates at the data link layer.

**NEW QUESTION 306**

- (Topic 3)

Which of the following is a cost-effective advantage of a split-tunnel VPN?

- A. Web traffic is filtered through a web filter.
- B. More bandwidth is required on the company's internet connection.
- C. Monitoring detects insecure machines on the company's network.
- D. Cloud-based traffic flows outside of the company's network.

**Answer: D**

**Explanation:**

A split-tunnel VPN is a configuration where only specific traffic is routed through a VPN, while the remaining data is sent directly over the internet. This can reduce the bandwidth consumption and cost of the company's internet connection, as cloud-based traffic does not need to pass through the VPN tunnel. A web filter, monitoring, and security are not advantages of a split-tunnel VPN, as they may require all traffic to go through the VPN.

<https://www.auvik.com/franklyit/blog/vpn-split-tunneling/>

**NEW QUESTION 308**

- (Topic 3)

Which of the following is the MOST cost-effective alternative that provides proper cabling and supports gigabit Ethernet devices?

- A. Twisted cable with a minimum Cat 5e certification
- B. Multimode fiber with an SC connector
- C. Twinaxial cabling using an F-type connector
- D. Cable termination using TIA/EIA-568-B

**Answer: A**

**Explanation:**

twisted cable with a minimum Cat 5e certification is the MOST cost-effective alternative that provides proper cabling and supports gigabit Ethernet devices.

**NEW QUESTION 311**

- (Topic 3)

A junior network administrator is auditing the company network and notices incrementing input errors on a long-range microwave interface. Which of the following is the most likely reason for the errors?

- A. The parabolic signal is misaligned.
- B. The omnidirectional signal is being jammed.
- C. The omnidirectional signal is not strong enough to receive properly.
- D. The parabolic signal uses improper routing protocols.

**Answer: A**

**Explanation:**

A long-range microwave interface is a type of wireless communication that uses high-frequency radio waves to transmit and receive data over long distances. A long-range microwave interface typically uses a parabolic antenna, also known as a dish antenna, to focus the radio waves into a narrow beam that can travel farther and with less interference than an omnidirectional antenna, which radiates the radio waves in all directions.

One of the most common causes of input errors on a long-range microwave interface is the misalignment of the parabolic antenna. Input errors are errors that occur when the receiver cannot properly decode or process the incoming signal. If the parabolic antenna is not aligned correctly with the transmitter, the receiver may not be able to capture the full strength of the signal, or it may pick up unwanted noise or interference from other sources. This can result in corrupted or lost data, which will increase the input error count.

To troubleshoot this issue, the junior network administrator should check the alignment of the parabolic antenna and make sure it is pointing directly at the transmitter. The administrator can use tools such as a spectrum analyzer, a signal strength meter, or a path alignment tool to measure and adjust the signal quality and alignment of the antenna. The other options are not likely reasons for the input errors on a long-range microwave interface. A long-range microwave interface does not use an omnidirectional signal, so it cannot be jammed or weakened by other sources. The parabolic signal does not depend on the routing protocols used by the network, so it cannot be affected by improper routing protocols.

**NEW QUESTION 316**

- (Topic 3)

A technician is troubleshooting a client's report about poor wireless performance. Using a client monitor, the technician notes the following information:

SSID	Signal (RSSI)	Channel
Corporate	-50	9
Corporate	-69	10
Corporate	-67	11
Corporate	-63	6

Which of the following is most likely the cause of the issue?

- A. Channel overlap
- B. Poor signal
- C. Incorrect power settings
- D. Wrong antenna type

**Answer:** A

**Explanation:**

Channel overlap is a situation where multiple wireless networks use the same or adjacent frequency channels, causing interference and degradation of performance. According to the image, the corporate SSID is using channels 9, 10, 11, and 6, which are overlapping with each other and with other networks in the area. This can reduce the signal quality and strength, increase the noise and latency, and cause dropouts and connectivity issues. To avoid channel overlap, it is recommended to use non-overlapping channels, such as 1, 6, and 11, in the 2.4 GHz band, or to switch to the 5 GHz band if possible<sup>12</sup>.

References

1 - What happens when wifi channels overlap? - Server Fault

2 - Is it better to use a crowded 2.4GHz Wi-Fi channel 1, 6, 11 or "unused" 3, 4, 8, or 9? - Super User

**NEW QUESTION 320**

- (Topic 3)

A sales team at a company uses a SaaS solution primarily for videoconferencing and a CRM application that connects to a database server in the corporate data center. Which of the following VPN solutions would allow secure, remote access for sales staff to the CRM application without impacting videoconferencing traffic?

- A. Clientless
- B. Site-to-site
- C. Split tunnel
- D. Full tunnel

**Answer:** A

**Explanation:**

A split tunnel VPN solution would allow secure, remote access for sales staff to the CRM application without impacting videoconferencing traffic. A VPN stands for virtual private network, which is a secure connection between two or more devices over a public network, such as the internet. A VPN encrypts and authenticates the data, ensuring its confidentiality and integrity. A split tunnel VPN is a type of VPN that allows some traffic to go through the VPN tunnel, while other traffic goes directly to the internet. This can improve performance and bandwidth utilization by reducing unnecessary encryption and routing overhead. By using a split tunnel VPN, sales staff can access the CRM application that connects to a database server in the corporate data center through the VPN tunnel, while using online videoconferencing services through their local internet connection. References: [CompTIA Network+ Certification Exam Objectives], What Is Split Tunneling? | NordVPN

**NEW QUESTION 324**

- (Topic 3)

Which of the following devices have the capability to allow communication between two different subnetworks? (Select TWO).

- A. IDS
- B. Access point
- C. Layer 2 switch
- D. Layer 3 switch
- E. Router
- F. Media converter

**Answer:** DE

**NEW QUESTION 325**

- (Topic 3)

A help desk supervisor reviews the following excerpt of a call transcript:

```
Agent: Thanks for calling the help desk. What can I help you with today?
Customer: I have been trying to connect to www.awesome-website.com all morning, but I can't get to it.
Agent: Let me see if I can reach it from my end. Give me a moment, please.
Customer: Sure. Thanks for helping.
Agent: It's my pleasure. And indeed, it seems like I can't reach that website either.
Customer: I guess that means that it isn't just me, then.
```

Which of the following was the agent trying to accomplish with this exchange?

- A. The agent was questioning the obvious.
- B. The agent was verifying full system functionality
- C. The agent was identifying potential effects.
- D. The agent was trying to duplicate the problem.

**Answer:** D

**Explanation:**

The agent was trying to duplicate the problem by asking the user to perform the same steps that led to the issue. This is a common troubleshooting technique that helps the agent to identify the root cause of the problem and verify if it is reproducible or intermittent. By duplicating the problem, the agent can also gather more information about the symptoms and error messages that the user encountered. References: [CompTIA Network+ Certification Exam Objectives], [Troubleshooting Methodology - CompTIA Network+ N10-007 - 1.4 | Professor Messer IT Certification Training Courses]

**NEW QUESTION 327**

- (Topic 3)

An administrator wants to host services on the internet using an internal server. The server is configured with an RFC1918 address, and the administrator wants to make the services that are hosted on the server available on one of the company's public IP addresses. Which of the following should the administrator configure to allow this access?

- A. IPv6 tunneling
- B. Virtual IP
- C. Dual stack
- D. EUI-64

**Answer:** B

**Explanation:**

A virtual IP (VIP) is an IP address that is shared by multiple servers or devices on a network. A VIP can be used to provide load balancing, failover, or high availability for services that are hosted on the network. A VIP can also be used to map an internal server's private IP address to a public IP address, allowing the server to host services on the internet. This is also known as network address translation (NAT) or port forwarding. The other options are not correct because they are not related to mapping an internal server's IP address to a public IP address. They are:

- IPv6 tunneling is a technique that allows IPv6 packets to be encapsulated and transmitted over an IPv4 network.
- Dual stack is a configuration that allows a device to support both IPv4 and IPv6 protocols simultaneously.
- EUI-64 is a method of generating a 64-bit interface identifier for an IPv6 address based on the 48-bit MAC address of the device.

References

What is a Virtual IP Address (VIP)? - Definition from Techopedia IPv6 Tunneling - an overview | ScienceDirect Topics

Dual Stack Definition

[EUI-64 - an overview | ScienceDirect Topics]

**NEW QUESTION 329**

- (Topic 3)

An ISP configured an internet connection to provide 20Mbps, but actual data rates are occurring at 10Mbps and causing a significant delay in data transmission. Which of the following specifications should the ISP check?

- A. Throughput
- B. Latency
- C. Bandwidth
- D. Jitter

**Answer:** A

**Explanation:**

Throughput is the actual amount of data that can be transferred over a network in a given time. Throughput can be affected by various factors such as congestion, interference, errors, or hardware limitations. If the throughput is lower than the configured internet connection speed, it can cause a significant delay in data transmission. The ISP should check the throughput and identify the source of the problem.

References: Network+ Study Guide Objective 2.2: Explain the concepts and characteristics of routing and switching.

**NEW QUESTION 334**

- (Topic 3)

A help desk technician discovers the following note while reviewing tickets in a customer's account:

```
Was able to confirm customer's problem with the system. Will upgrade system to latest version and monitor for further connectivity problems per developer's instructions.
```

Which of the following describes what the technician was documenting with this note?

- A. The technician was approaching multiple problems individually.
- B. The technician was establishing a plan of action and identifying potential effects.
- C. The technician was testing a theory to determine the cause.
- D. The technician was identifying the problem by gathering information.

**Answer:** D

**Explanation:**

The technician was identifying the problem by gathering information with this note. This is the first step of the troubleshooting methodology, which is a systematic process of finding and resolving issues in a network or system. By gathering information, the technician can understand the symptoms, scope, and impact of the problem, as well as collect relevant data from various sources, such as users, logs, tools, or documentation. The note shows that the technician was asking questions to the user, checking the network status and configuration, and reviewing previous tickets to gather information about the problem. References: [CompTIA Network+ Certification Exam Objectives], Troubleshooting Methodology - CompTIA Network+ N10-007 - 1.4 | Professor Messer IT Certification

Training Courses

**NEW QUESTION 339**

- (Topic 3)

Which of the following demarcation connections would be MOST appropriate to use with a cable modem being installed in a SOHO situation?

- A. RG6
- B. Cat 6
- C. RJ11
- D. Multimode fiber

**Answer:** A

**Explanation:**

RG6 is a type of coaxial cable that is commonly used for cable TV and internet services. A cable modem is a device that modulates and demodulates signals over a coaxial cable network to provide broadband internet access. A SOHO situation refers to a small office/home office environment that typically has a single cable modem connected to a single coaxial cable outlet. Therefore, RG6 is the most appropriate demarcation connection for a cable modem in a SOHO situation.

References: [CompTIA Network+ Certification Exam Objectives], What Is RG6 Cable? | Techwalla

**NEW QUESTION 341**

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