

CompTIA

Exam Questions N10-009

CompTIA Network+ Exam



NEW QUESTION 1

- (Exam Topic 1)

An IT director is setting up new disaster and HA policies for a company. Limited downtime is critical to operations. To meet corporate requirements, the director set up two different datacenters across the country that will stay current on data and applications. In the event of an outage, the company can immediately switch from one datacenter to another. Which of the following does this BEST describe?

- A. A warm site
- B. Data mirroring
- C. Multipathing
- D. Load balancing
- E. A hot site

Answer: E

Explanation:

A hot site is a fully redundant site that can take over operations immediately if the primary site goes down. In this scenario, the company has set up two different datacenters across the country that are current on data and applications, and they can immediately switch from one datacenter to another in case of an outage.

References:

> Network+ N10-008 Objectives: 1.5 Compare and contrast disaster recovery concepts and methodologies.

NEW QUESTION 2

- (Exam Topic 1)

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

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

Answer: A

Explanation:

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

References:

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

NEW QUESTION 3

- (Exam Topic 1)

A technician wants to deploy a new wireless network that comprises 30 WAPs installed throughout a three-story office building. All the APs will broadcast the same SSID for client access. Which of the following BEST describes this deployment?

- A. Extended service set
- B. Basic service set
- C. Unified service set
- D. Independent basic service set

Answer: A

Explanation:

An extended service set (ESS) is a wireless network that consists of multiple access points (APs) that share the same SSID and are connected by a wired network. An ESS allows wireless clients to roam seamlessly between different APs without losing connectivity. A basic service set (BSS) is a wireless network that consists of a single AP and its associated clients. An independent basic service set (IBSS) is a wireless network that consists of a group of clients that communicate directly without an AP. A unified service set is not a standard term for a wireless 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://en.wikipedia.org/wiki/Service_set_\(802.11_network\)](https://en.wikipedia.org/wiki/Service_set_(802.11_network))

NEW QUESTION 4

- (Exam 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:

Short 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

- (Exam Topic 1)

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

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

Answer: B

Explanation:

* 802.11 a/b/g/n/ac wireless networks operate in two frequency ranges: 2.4 GHz and 5 GHz. The 5 GHz frequency range supports more channels than the 2.4 GHz frequency range, making it a better choice for high-density wireless networks.

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

NEW QUESTION 6

- (Exam Topic 1)

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

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

Answer: C

Explanation:

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

References:

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

NEW QUESTION 7

- (Exam 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 8

- (Exam 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 9

- (Exam Topic 1)

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

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

Answer: B

Explanation:

Reverse Address Resolution Protocol (RARP) is a protocol that allows a device to obtain its MAC address from its IP address. A MAC spoofing attack is an attack where a device pretends to have a different MAC address than its actual one. RARP can be used to detect a MAC spoofing attack by comparing the MAC address obtained from RARP with the MAC address obtained from other sources, such as ARP or DHCP. References:

[https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-\(2-0\)](https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0)), <https://www.techopedia.com/definition/25597/reverse-address-resolution-protocol-rarp>

NEW QUESTION 10

- (Exam Topic 1)

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

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

Answer: B

Explanation:

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

References:

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

NEW QUESTION 10

- (Exam Topic 1)

A workstation is configured with the following network details:

IP address	Subnet mask	Default gateway
10.1.2.23	10.1.2.0/27	10.1.2.1

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

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

Answer: D

Explanation:

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

NEW QUESTION 14

- (Exam Topic 1)

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

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

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

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

Answer: A

Explanation:

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

References:

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

NEW QUESTION 19

- (Exam Topic 1)

Given the following information:

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

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

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

Answer: D

Explanation:

Tracert is a command-line tool that traces the route of a packet from a source to a destination and displays the number of hops and the round-trip time for each hop. The output shown in the question is an example of a tracert output, which shows five hops with their IP addresses and hostnames (if available) and three latency measurements for each hop in milliseconds. References:

[https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-\(2-0\)](https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0)), <https://www.lumen.com/help/en-us/network/traceroute/understanding-the-traceroute-output.html>

NEW QUESTION 24

- (Exam 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 26

- (Exam Topic 1)

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

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

Answer: C

Explanation:

Port security is a feature that restricts input to a switch port by limiting and identifying MAC addresses of the devices allowed to access the port. This prevents unintended connections from unauthorized devices or spoofed MAC addresses. Port security can also be configured to take actions such as shutting down the port or sending an alert when a violation occurs. References:

[https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-\(2-0\)](https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0)), https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst9500/software/release/16-10/configuration_guide/se

NEW QUESTION 30

- (Exam Topic 1)

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

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

E. Intrusion prevention

Answer: C

Explanation:

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

NEW QUESTION 31

- (Exam Topic 1)

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

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

Answer: A

Explanation:

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

NEW QUESTION 32

- (Exam Topic 1)

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

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

Answer: B

Explanation:

QSFP+ is a transceiver type that can support up to 40Gbps. It stands for Quad Small Form-factor Pluggable Plus and uses four lanes of data to achieve high-speed transmission. It is commonly used for data center and high-performance computing applications. References: https://www.cisco.com/c/en/us/products/collateral/interfaces-modules/transceiver-modules/data_sheet_c78-6600

NEW QUESTION 34

- (Exam Topic 1)

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

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

Answer: D

Explanation:

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

NEW QUESTION 37

- (Exam Topic 1)

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

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

Answer: A

Explanation:

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

NEW QUESTION 41

- (Exam Topic 1)

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

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

Answer: A

Explanation:

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

NEW QUESTION 44

- (Exam Topic 1)

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

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

Answer: A

Explanation:

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

NEW QUESTION 48

- (Exam Topic 1)

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

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

Answer: D

Explanation:

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

NEW QUESTION 52

- (Exam Topic 1)

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

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

Answer: B

Explanation:

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

NEW QUESTION 53

- (Exam 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 54

- (Exam Topic 1)

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

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

Answer: BC

Explanation:

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

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

NEW QUESTION 57

- (Exam Topic 1)

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

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

Answer: B

Explanation:

CPU utilization is a metric that measures the percentage of time a CPU spends executing instructions. When the logging level is set for debugging, the router may generate a large amount of logging data, which can increase CPU utilization and cause the router to stop responding to requests intermittently. References:

> Network+ N10-008 Objectives: 2.1 Given a scenario, troubleshoot common physical connectivity issues.

NEW QUESTION 62

- (Exam Topic 1)

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

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

Answer: A

Explanation:

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

automatically switching to another network interface card.

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

NEW QUESTION 65

- (Exam 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 67

- (Exam 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 72

- (Exam Topic 1)

Client devices cannot enter a network, and the network administrator determines the DHCP scope is exhausted. The administrator wants to avoid creating a new DHCP pool. Which of the following can the administrator perform to resolve the issue?

- A. Install load balancers
- B. Install more switches
- C. Decrease the number of VLANs
- D. Reduce the lease time

Answer: D

Explanation:

To resolve the issue of DHCP scope exhaustion without creating a new DHCP pool, the administrator can reduce the lease time. By decreasing the lease time, the IP addresses assigned by DHCP will be released back to the DHCP scope more quickly, allowing them to be assigned to new devices.

References:

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

> <https://www.networkcomputing.com/data-centers/10-tips-optimizing-dhcp-performance>

NEW QUESTION 76

- (Exam Topic 1)

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

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

Answer: A

Explanation:

Using a bottom-to-top approach means starting from the physical layer and moving up the OSI model to troubleshoot a network problem. Checking for a link light is a physical layer check that verifies the connectivity of the network cable and device. References:

<https://www.professormesser.com/network-plus/n10-007/troubleshooting-methodologies-2/>

NEW QUESTION 81

- (Exam Topic 1)

A network administrator redesigned the positioning of the APs to create adjacent areas of wireless coverage. After project validation, some users still report poor connectivity when their devices maintain an association to a distanced AP. Which of the following should the network administrator check FIRST?

- A. Validate the roaming settings on the APs and WLAN clients
- B. Verify that the AP antenna type is correct for the new layout
- C. Check to see if MU-MIMO was properly activated on the APs
- D. Deactivate the 2.4GHz band on the APS

Answer: A

Explanation:

The network administrator should check the roaming settings on the APs and WLAN clients first. Roaming is the process of switching from one AP to another without losing connectivity. If the roaming settings are not configured properly, some users may experience poor connectivity when their devices stay connected to a distant AP instead of switching to a closer one. References: <https://www.cisco.com/c/en/us/support/docs/wireless-mobility/wireless-lan-wlan/82068-roam-faq.html>

NEW QUESTION 86

- (Exam Topic 1)

A network technician is manually configuring the network settings for a new device and is told the network block is 192.168.0.0/20. Which of the following subnets should the technician use?

- A. 255.255.128.0
- B. 255.255.192.0
- C. 255.255.240.0
- D. 255.255.248.0

Answer: C

Explanation:

A subnet mask is a binary number that indicates which bits of an IP address belong to the network portion and which bits belong to the host portion. A slash notation (/n) indicates how many bits are used for the network portion. A /20 notation means that 20 bits are used for the network portion and 12 bits are used for the host portion. To convert /20 to a dotted decimal notation, we need to write 20 ones followed by 12 zeros in binary and then divide them into four octets separated by dots. This gives us 11111111.11111111.11110000.00000000 or 255.255.240.0 in decimal. References: [https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-\(2-0\)](https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0)), <https://www.techopedia.com/definition/950/subnet-mask>

NEW QUESTION 88

- (Exam Topic 2)

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

- * 1 Must not use plaintext passwords
- * 2 Must be certificate based
- * 3. Must be vendor neutral

Which of the following methods should the engineer select?

- A. TWP-RC4
- B. CCMP-AES
- C. EAP-TLS
- D. WPA2

Answer: C

Explanation:

EAP-TLS is the method that should be selected to meet the requirements for designing a new secure wireless network. EAP-TLS (Extensible Authentication Protocol - Transport Layer Security) is an authentication protocol that uses X.509 digital certificates for both clients and servers. It provides strong security and mutual authentication by using TLS encryption and public key cryptography. It does not use plaintext passwords or shared secrets that can be compromised or guessed. It is also an open standard that is vendor neutral and supported by most wireless devices¹. References: <https://www.securew2.com/blog/what-is-eap-tls>
1

NEW QUESTION 92

- (Exam Topic 2)

Which of the following uses the destination IP address to forward packets?

- A. A bridge
- B. A Layer 2 switch
- C. A router
- D. A repeater

Answer: C

Explanation:

A router is a device that uses the destination IP address to forward packets between different networks. A bridge and a Layer 2 switch operate at the data link layer and use MAC addresses to forward frames within the same network. A repeater is a device that amplifies or regenerates signals at the physical layer.

NEW QUESTION 96

- (Exam 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 98

- (Exam Topic 2)

A network technician was troubleshooting an issue for a user who was being directed to cloned websites that were stealing credentials. The URLs were correct for the websites but an incorrect IP address was revealed when the technician used ping on the user's PC. After checking the DNS settings, the technician found the DNS server address was incorrect. Which of the following describes the issue?

- A. Rogue DHCP server
- B. Misconfigured HSRP
- C. DNS poisoning
- D. Exhausted IP scope

Answer: C

Explanation:

DNS poisoning is a type of attack that modifies the DNS records of a domain name to point to a malicious IP address instead of the legitimate one. This can result in users being directed to cloned websites that are stealing credentials, even if they enter the correct URL for the website. The incorrect DNS server address on the user's PC could be a sign of DNS poisoning, as the attacker could have compromised the DNS server or spoofed its response to redirect the user's queries. References: <https://www.comptia.org/blog/what-is-dns-poisoning>

NEW QUESTION 99

- (Exam Topic 2)

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

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

Answer: D

Explanation:

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

NEW QUESTION 104

- (Exam Topic 2)

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

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

Answer: A

Explanation:

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

References:

<https://www.comptia.org/blog/what-is-a-honeypot>

NEW QUESTION 108

- (Exam Topic 2)

A network administrator is reviewing interface errors on a switch. Which of the following indicates that a switchport is receiving packets in excess of the configured MTU?

- A. CRC errors
- B. Giants
- C. Runts
- D. Flooding

Answer: B

Explanation:

Giants are packets that exceed the configured MTU (Maximum Transmission Unit) of a switchport or interface, which causes them to be dropped or fragmented by the switch or router. The MTU is the maximum size of a packet that can be transmitted without fragmentation on a given medium or protocol. Giants can indicate misconfiguration or mismatch of MTU values between devices or interfaces on a network, which can cause performance issues or errors. CRC errors are errors

that occur when the cyclic redundancy check (CRC) value of a packet does not match the calculated CRC value at the destination, which indicates corruption or alteration of data during transmission due to noise, interference, faulty cabling, etc., but not necessarily exceeding MTU values. Runts are packets that are smaller than the minimum size allowed by the medium or protocol, which causes them to be dropped or ignored by the switch or router. Flooding is a technique where a switch sends packets to all ports except the source port when it does not have an entry for the destination MAC address in its MAC address table, which can cause congestion or broadcast storms on a network.

NEW QUESTION 109

- (Exam Topic 2)

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

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

Answer: A

Explanation:

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

<https://www.cisco.com/c/en/us/support/docs/security-vpn/secure-shell-ssh/15292-scp.html>

NEW QUESTION 112

- (Exam 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. The technician can get the key to the wiring closet and manually restart the switch.
- E. 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 114

- (Exam 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 118

- (Exam Topic 2)

A wireless network was installed in a warehouse for employees to scan crates with a wireless handheld scanner. The wireless network was placed in the corner of the building near the ceiling for maximum coverage. However, users in the offices adjacent to the warehouse have noticed a large amount of signal overlap from the new network. Additionally, warehouse employees report difficulty connecting to the wireless network from the other side of the building; however, they have no issues when they are near the antenna. Which of the following is MOST likely the cause?

- A. The wireless signal is being refracted by the warehouse's windows

- B. The antenna's power level was set too high and is overlapping
- C. An omnidirectional antenna was used instead of a unidirectional antenna
- D. The wireless access points are using channels from the 5GHz spectrum

Answer: C

Explanation:

An omnidirectional antenna was used instead of a unidirectional antenna, which is most likely the cause of the wireless network issues. An omnidirectional antenna provides wireless coverage in all directions from the antenna, which can cause signal overlap with adjacent offices and interference with other wireless networks. A unidirectional antenna, on the other hand, provides wireless coverage in a specific direction from the antenna, which can reduce signal overlap and interference and increase signal range and quality. A unidirectional antenna would be more suitable for a warehouse environment where users are located on one side of the building. References:

<https://www.cisco.com/c/en/us/support/docs/wireless-mobility/wireless-lan-wlan/82068-omni-vs-direct.html> 1

NEW QUESTION 120

- (Exam Topic 2)

An organization wants to implement a method of centrally managing logins to network services. Which of the following protocols should the organization use to allow for authentication, authorization and auditing?

- A. MS-CHAP
- B. RADIUS
- C. LDAPS
- D. RSTP

Answer: B

Explanation:

RADIUS (Remote Authentication Dial-In User Service) is a protocol that should be used by the organization to allow for authentication, authorization, and auditing of network services. RADIUS is an AAA (Authentication, Authorization, and Accounting) protocol that manages network access by verifying user credentials, granting access permissions, and logging user activities. RADIUS uses a client-server model where a RADIUS client (such as a router, switch, or VPN server) sends user information to a RADIUS server (such as an authentication server) for verification and authorization. The RADIUS server can also send accounting information to another server for billing or reporting purposes. References:

<https://www.cisco.com/c/en/us/support/docs/security-vpn/remote-authentication-dial-user-service-radius/13838>

NEW QUESTION 124

- (Exam 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 126

- (Exam Topic 2)

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

- A. The nearest APs are configured for 802.11g.
- B. An incorrect channel assignment is on the nearest APs.
- C. The power level is too high for the AP on the far side.
- D. Interference exists around the AP on the far side.

Answer: C

Explanation:

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

<https://www.comptia.org/blog/what-is-power-level>

NEW QUESTION 130

- (Exam Topic 2)

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

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

Answer: D

Explanation:

A door lock would be the best security device to use to provide mechanical access control to the MDF/IDF. A door lock is a device that prevents unauthorized access to a physical area by requiring a key, a code, a card, a biometric scan, or a combination of these factors to open it. A door lock can provide mechanical access control to the MDF/IDF, which are rooms that house network equipment such as switches, routers, servers, or patch panels. A door lock can prevent unauthorized persons from tampering with or stealing the network equipment or data. References: https://www.cisco.com/c/en/us/td/docs/solutions/Enterprise/Data_Center/DC_Infra2_5/DCInfra_6.html

NEW QUESTION 134

- (Exam Topic 2)

Which of the following protocols will a security appliance that is correlating network events from multiple devices MOST likely rely on to receive event messages?

- A. Syslog
- B. Session Initiation Protocol
- C. Secure File Transfer Protocol
- D. Server Message Block

Answer: A

Explanation:

Syslog is a protocol that provides a standard way for network devices and applications to send event messages to a logging server or a security appliance. Syslog messages can contain information about security incidents, errors, warnings, system status, configuration changes, and other events. A security appliance that is correlating network events from multiple devices can rely on Syslog to receive event messages from different sources and formats. References: <https://www.comptia.org/blog/what-is-syslog>

NEW QUESTION 136

- (Exam Topic 2)

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

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

Answer: B

Explanation:

VPN (Virtual Private Network) is the most appropriate way to enable secure remote printing. VPN is a technology that creates a secure and encrypted tunnel over a public network such as the Internet. It allows remote users or sites to access a private network as if they were directly connected to it. VPN can be used for various purposes such as accessing corporate resources, bypassing geo-restrictions, or enhancing privacy and security. VPN can also be used for remote printing by allowing users to connect to a printer on the private network and send print jobs securely over the VPN tunnel. References: <https://www.cisco.com/c/en/us/support/docs/security-vpn/ipsec-negotiation-ike-protocols/14106-how-vpn-work>

NEW QUESTION 138

- (Exam 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 141

- (Exam Topic 2)

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

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

Answer: D

Explanation:

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

NEW QUESTION 142

- (Exam 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

NEW QUESTION 143

- (Exam Topic 2)

A company is being acquired by a large corporation. As part of the acquisition process, the company's address should now redirect clients to the corporate organization page. Which of the following DNS records needs to be created?

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

Answer: C

Explanation:

Reference:

<https://www.namecheap.com/support/knowledgebase/article.aspx/9604/2237/types-of-domain-redirects-301-302>

CNAME (Canonical Name) is a type of DNS record that maps an alias name to another name, which can be either another alias or the canonical name of a host or domain. A CNAME record can be used to redirect clients from one domain name to another domain name, such as from the company's address to the corporate organization page. SOA (Start of Authority) is a type of DNS record that specifies authoritative information about a DNS zone, such as the primary name server, contact email address, serial number, refresh interval, etc., which does not redirect clients to another domain name. NS (Name Server) is a type of DNS record that specifies which name server is authoritative for a domain or subdomain, which does not redirect clients to another domain name. TXT (Text) is a type of DNS record that provides arbitrary text information about a domain or subdomain, such as SPF (Sender Policy Framework) records or DKIM (DomainKeys Identified Mail) records, which does not redirect clients to another domain name.

NEW QUESTION 144

- (Exam Topic 2)

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

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

Answer: A

Explanation:

SLAAC (Stateless Address Autoconfiguration) is a method for IPv6 devices to automatically configure their IP addresses based on the network prefix advertised by a router. The router sends periodic router advertisements (RAs) that contain the network prefix and other parameters for the devices to use. If the network gateway is not configured to send RAs, then SLAAC will not work. A DHCP server is not needed for SLAAC, as the devices generate their own addresses without relying on a server. Dual stack and anycast routing are not related to SLAAC.

NEW QUESTION 149

- (Exam Topic 2)

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

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

Answer: C

Explanation:

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

NEW QUESTION 151

- (Exam Topic 2)

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

- A. A port scan printout
- B. A consolidated report of various network devices
- C. A report from the SIEM tool
- D. A report from a vulnerability scan done yesterday

Answer: C

Explanation:

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

NEW QUESTION 152

- (Exam 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. 100.64.1.1 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 157

- (Exam Topic 2)

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

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

Answer: A

Explanation:

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

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

NEW QUESTION 160

- (Exam Topic 2)

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

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

Answer: C

Explanation:

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

NEW QUESTION 163

- (Exam Topic 2)

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

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

Answer: B

Explanation:

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

NEW QUESTION 166

- (Exam Topic 2)

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

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

Answer: B

Explanation:

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

NEW QUESTION 171

- (Exam Topic 2)

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

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

Answer: A

Explanation:

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

NEW QUESTION 174

- (Exam Topic 2)

Which of the following is MOST commonly used to address CVEs on network equipment and/or operating systems?

- A. Vulnerability assessment
- B. Factory reset
- C. Firmware update
- D. Screened subnet

Answer: C

Explanation:

Firmware is a type of software that controls the low-level functions of a hardware device, such as a router, switch, printer, or camera. Firmware updates are patches or upgrades that fix bugs, improve performance, add features, or address security vulnerabilities in firmware. Firmware updates are commonly used to address CVEs (Common Vulnerabilities and Exposures) on network equipment and operating systems, as CVEs are publicly known flaws that can be exploited by attackers. References:

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

NEW QUESTION 179

- (Exam Topic 2)

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

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

Answer: B

Explanation:

The default gateway is the setting that the user most likely misconfigured on the PC that caused it to be unable to access websites by both FQDN and IP. The default gateway is a device, usually a router or a firewall, that connects a local network to other networks such as the Internet. It acts as an intermediary between devices on different networks and forwards packets based on their destination IP addresses. If the default gateway is not configured correctly on a PC, it will not be able to communicate with devices outside its local network, such as web servers or DNS servers. References:

<https://www.cisco.com/c/en/us/support/docs/ip/routing-information-protocol-rip/16448-default-gateway.html>

NEW QUESTION 180

- (Exam Topic 2)

A customer wants to segregate the traffic between guests on a hypervisor. Which of the following does a technician need to configure to meet the requirement?

- A. Virtual switches
- B. OSPF routing
- C. Load balancers
- D. NIC teaming
- E. Fibre Channel

Answer: A

Explanation:

A virtual switch is a software-based switch that connects virtual machines on a hypervisor. A virtual switch can create and manage VLANs, which are logical segments of a network that isolate traffic between different groups of devices. A customer can use virtual switches to segregate the traffic between guests on a hypervisor by creating a separate VLAN for each guest and assigning it to a virtual switch port. References: <https://www.comptia.org/blog/what-is-a-virtual-switch>

NEW QUESTION 184

- (Exam 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 186

- (Exam Topic 2)

A network administrator is setting up several IoT devices on a new VLAN and wants to accomplish the following

- * 1. Reduce manual configuration on each system
- * 2. Assign a specific IP address to each system
- * 3. Allow devices to move to different switchports on the same VLAN

Which of the following should the network administrator do to accomplish these requirements?

- A. Set up a reservation for each device
- B. Configure a static IP on each device
- C. Implement private VLANs for each device
- D. Use DHCP exclusions to address each device

Answer: A

Explanation:

A reservation is a feature of DHCP that assigns a specific IP address to a device based on its MAC address. This way, the device will always receive the same IP

address from the DHCP server, regardless of its location or connection time. A network administrator can set up a reservation for each IoT device to accomplish the requirements of reducing manual configuration, assigning a specific IP address, and allowing devices to move to different switchports on the same VLAN. References: <https://www.comptia.org/blog/what-is-dhcp>

NEW QUESTION 189

- (Exam Topic 3)

Which of the following network devices can perform routing between VLANs?

- A. Layer 2 switch
- B. Layer 3 switch
- C. Load balancer
- D. Bridge

Answer: B

Explanation:

<https://www.practicalnetworking.net/stand-alone/routing-between-vlans/#:~:text=A%20router%20will%20perfo>

NEW QUESTION 191

- (Exam Topic 3)

An administrator is investigating reports of network slowness in a building. While looking at the uplink interface statistics in the switch's CLI, the administrator discovers the uplink is at 100% utilization. However, the administrator is unsure how to identify what traffic is causing the saturation. Which of the following tools should the administrator utilize to identify the source and destination addresses of the traffic?

- A. SNMP
- B. Traps
- C. Syslog
- D. NetFlow

Answer: D

Explanation:

To identify the source and destination addresses of the traffic causing network saturation, the network administrator should use a network protocol analyzer that supports the NetFlow protocol. NetFlow is a network protocol that collects IP traffic information as it enters or exits an interface and sends it to a NetFlow collector for analysis. This data includes the source and destination addresses of the traffic, the ports used, and the number of bytes and packets transferred. Therefore, the correct answer is option D, NetFlow.

Reference: CompTIA Network+ Study Guide, Exam N10-007, Fourth Edition, by Todd Lammler (Chapter 6: Network Devices)

NEW QUESTION 193

- (Exam Topic 3)

A technician performed a manual reconfiguration of a firewall, and network connectivity was reestablished. Some connection events that were previously sent to a syslog server are no longer being generated by the firewall. Which of the following should the technician perform to fix the issue?

- A. Adjust the proper logging level on the new firewall.
- B. Tune the filter for logging the severity level on the syslog server.
- C. Activate NetFlow traffic between the syslog server and the firewall.
- D. Restart the SNMP service running on the syslog server.

Answer: A

Explanation:

Logging level is a setting that determines what types of events are recorded by a device and sent to a syslog server. Different logging levels have different severity levels, ranging from emergency to debug. If the technician performed a manual reconfiguration of the firewall, it is possible that the logging level was changed or reset to a lower level that does not include the connection events that were previously sent to the syslog server. To fix the issue, the technician should adjust the proper logging level on the new firewall to match the desired level of detail and severity for the connection events. References: Network+ Study Guide Objective 3.4: Explain common scanning, monitoring and patching processes and summarize their expected outputs. Subobjective: Syslog.

NEW QUESTION 197

- (Exam Topic 3)

A company needs a redundant link to provide a channel to the management network in an incident response scenario. Which of the following remote access methods provides the BEST solution?

- A. Out-of-band access
- B. Split-tunnel connections
- C. Virtual network computing
- D. Remote desktop gateways

Answer: A

Explanation:

Out-of-band access is a remote access method that provides a separate, independent channel for accessing network devices and systems. Out-of-band access uses a dedicated network connection or a separate communication channel, such as a dial-up or cellular connection, to provide access to network devices and systems. This allows an administrator to access the management network even if the primary network connection is unavailable or impaired. Out-of-band access is a good solution for providing a redundant link to the management network in an incident response scenario because it can be used to access the network even if the primary connection is unavailable or impaired.

NEW QUESTION 198

- (Exam Topic 3)

Several employees have expressed concerns about the company monitoring their internet activity when they are working from home. The company wants to mitigate this issue and reassure employees that their private internet activity is not being monitored. Which of the following would satisfy company and employee needs?

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

Answer: A

Explanation:

Split tunnel is a configuration that allows a remote user to access both the local network and the Internet at the same time. In a split tunnel configuration, only traffic destined for the corporate network is sent through the VPN tunnel, while all other traffic is sent directly to the Internet. This allows the remote user to access the Internet without the company's VPN server being able to monitor or intercept their traffic. Using a split tunnel configuration can help the company to mitigate employee concerns about internet activity being monitored and reassure employees that their private internet activity is not being monitored.

NEW QUESTION 201

- (Exam Topic 3)

A non-employee was able to enter a server room. Which of the following could have prevented this from happening?

- A. A security camera
- B. A biometric reader
- C. OTP key fob
- D. Employee training

Answer: B

Explanation:

A biometric reader is a device that scans a person's physical characteristics, such as fingerprints, iris, or face, and compares them to a database of authorized users. A biometric reader can be used to restrict access to a server room and prevent unauthorized entry. A biometric reader provides a high level of security and cannot be easily bypassed or duplicated.

References: Network+ Study Guide Objective 5.1: Summarize the importance of physical security controls.

NEW QUESTION 202

- (Exam Topic 3)

Which of the following would MOST likely utilize PoE?

- A. A camera
- B. A printer
- C. A hub
- D. A modem

Answer: A

Explanation:

A camera is most likely to utilize PoE (Power over Ethernet). PoE is a technology that allows electrical power to be delivered over Ethernet cables. It is used to power a variety of devices, such as cameras, phones, access points, and other networking equipment. Cameras are particularly well-suited for PoE because they are often installed in locations where it is difficult or impossible to run electrical power. By using PoE, cameras can be powered directly over the Ethernet cable, eliminating the need for separate power cables and outlets. Other devices, such as printers, hubs, and modems, are less likely to utilize PoE because they typically do not need to be powered over Ethernet. These devices are usually powered by AC (alternating current) power and are typically connected to a power outlet rather than an Ethernet cable.

NEW QUESTION 207

- (Exam Topic 3)

Which of the following OSI model layers would allow a user to access and download files from a remote computer?

- A. Session
- B. Presentation
- C. Network
- D. Application

Answer: D

Explanation:

The application layer of the OSI model (Open Systems Interconnection) is responsible for providing services to applications that allow users to access and download files from a remote computer. These services include file transfer, email, and web access, as well as other related services. In order for a user to access and download files from a remote computer, the application layer must provide the necessary services that allow the user to interact with the remote computer.

NEW QUESTION 209

- (Exam Topic 3)

Which of the following is an example of on-demand scalable hardware that is typically housed in the vendor's data center?

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

Answer: B

NEW QUESTION 210

- (Exam 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 212

- (Exam Topic 3)

A systems operator is granted access to a monitoring application, configuration application, and timekeeping application. The operator is denied access to the financial and project management applications by the system's security configuration. Which of the following BEST describes the security principle in use?

- A. Network access control
- B. Least privilege
- C. Multifactor authentication
- D. Separation of duties

Answer: D

NEW QUESTION 216

- (Exam Topic 3)

A network is experiencing extreme latency when accessing a particular website. Which of the following commands will BEST help identify the issue?

- A. ipconfig
- B. netstat
- C. tracert
- D. ping

Answer: C

NEW QUESTION 218

- (Exam 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 221

- (Exam Topic 3)

An administrator needs to connect two laptops directly to each other using 802.11ac but does not have an AP available. Which of the following describes this configuration?

- A. Basic service set
- B. Extended service set
- C. Independent basic service set
- D. MU-MIMO

Answer: C

NEW QUESTION 223

- (Exam Topic 3)

During a risk assessment which of the following should be considered when planning to mitigate high CPU utilization of a firewall?

- A. Recovery time objective
- B. Uninterruptible power supply
- C. NIC teaming
- D. Load balancing

Answer: D

Explanation:

The recovery time objective (RTO) is the maximum tolerable length of time that a computer, system, network or application can be down after a failure or disaster occurs. This does nothing to help with CPU utilization. Load balancing does this.

NEW QUESTION 225

- (Exam Topic 3)

A technician wants to monitor and provide traffic segmentation across the network. The technician would like to assign each department a specific identifier. Which of the following will the technician MOST likely use?

- A. Flow control
- B. Traffic shaping
- C. VLAN tagging
- D. Network performance baselines

Answer: C

Explanation:

To monitor and provide traffic segmentation across the network, a technician may use the concept of VLANs (Virtual Local Area Networks). VLANs are a way of dividing a single physical network into multiple logical networks, each with its own unique identifier or "tag."

By assigning each department a specific VLAN identifier, the technician can segment the network traffic and ensure that the different departments' traffic is kept separate from one another. This can help to improve network security, performance, and scalability, as well as allowing for better monitoring and control of the network traffic.

To implement VLANs, the technician will need to configure VLAN tagging on the network devices, such as switches and routers, and assign each department's devices to the appropriate VLAN. The technician may also need to configure VLAN trunking to allow the different VLANs to communicate with each other.

By using VLANs, the technician can effectively monitor and segment the network traffic, providing better control and visibility into the network.

NEW QUESTION 230

- (Exam Topic 3)

Which of the following commands can be used to display the IP address, subnet address, gateway address, and DNS address on a Windows computer?

- A. netstat -a
- B. ifconfig
- C. ip addr
- D. ipconfig /all

Answer: D

Explanation:

The ipconfig command is a utility that allows you to view and modify the network configuration of a Windows computer. By running the command "ipconfig /all", you can view detailed information about the network configuration of your computer, including the IP address, subnet mask, default gateway, and DNS server addresses.

Option A (netstat -a) is a command that displays active network connections and their status, but it does not display IP address or other network configuration information. Option B (ifconfig) is a command used on Linux and Unix systems to view and modify network configuration, but it is not available on Windows. Option C (ip addr) is a command used on Linux and Unix systems to view and modify network configuration, but it is not available on Windows.

NEW QUESTION 235

- (Exam Topic 3)

A company with multiple routers would like to implement an HA network gateway with the least amount of downtime possible. This solution should not require changes on the gateway setting of the network clients. Which of the following should a technician configure?

- A. Automate a continuous backup and restore process of the system's state of the active gateway.
- B. Use a static assignment of the gateway IP address on the network clients.
- C. Configure DHCP relay and allow clients to receive a new IP setting.
- D. Configure a shared VIP and deploy VRRP on the routers.

Answer: D

Explanation:

The open standard protocol Virtual Router Redundancy Protocol (VRRP) is similar to HSRP, the differences mainly being in terminology and packet formats. In VRRP, the active router is known as the master, and all other routers in the group are known as backup routers. There is no specific standby router; instead, all backup routers monitor the status of the master, and in the event of a failure, a new master router is selected from the available backup routers based on priority.

NEW QUESTION 238

- (Exam Topic 3)

SIMULATION

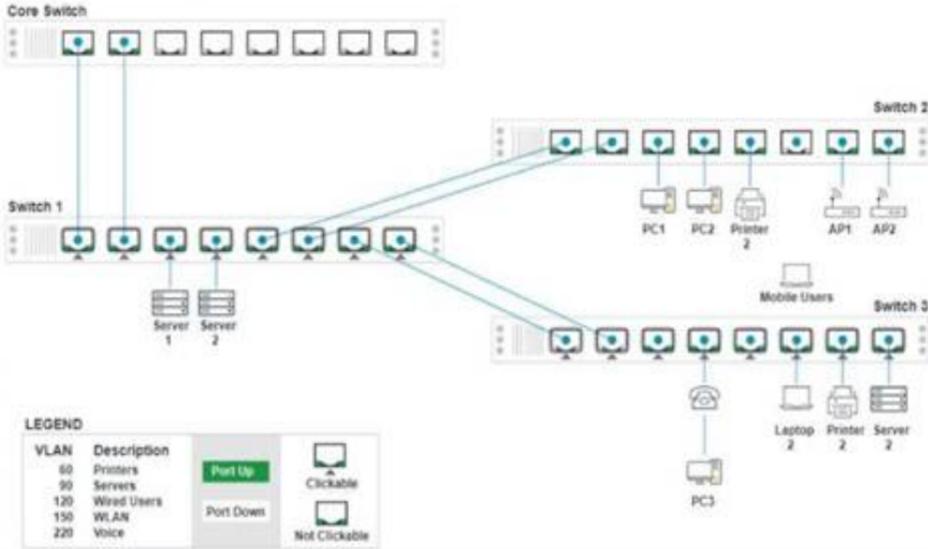
A network technician replaced a switch and needs to reconfigure it to allow the connected devices to connect to the correct networks.

INSTRUCTIONS

Click on the appropriate port(s) on Switch 1 and Switch 3 to verify or reconfigure the correct settings:

- Ensure each device accesses only its correctly associated network
- Disable all unused switch ports
- Require fault-tolerant connections between the switches
- Only make necessary changes to complete the above requirements

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



Switch 3 - Port 8 Configuration

Status
 Port: Enabled
 LACP: Disabled

Wired
 Speed: Auto 100 1000
 Duplex: Auto Half Full

VLAN Configuration
 Add VLAN: [Dropdown]
 Port Tagging: [UnTagged] (Dropdown)
 VLAN List: VLAN 1, VLAN 60, VLAN 90, VLAN 120, VLAN 150, VLAN 220

Buttons: Reset to Default, Save, Close

Switch 3 - Port 7 Configuration

Status
 Port: Enabled
 LACP: Disabled

Wired
 Speed: Auto 100 1000
 Duplex: Auto Half Full

VLAN Configuration
 Add VLAN: [Dropdown]
 Port Tagging: [UnTagged] (Dropdown)
 VLAN List: VLAN 1, VLAN 60, VLAN 90, VLAN 120, VLAN 150, VLAN 220

Buttons: Reset to Default, Save, Close

Switch 3 - Port 6 Configuration

Status
Port Enabled
LACP Disabled

Wired
Speed Auto 100 1000
Duplex Auto Half Full

VLAN Configuration
Add VLAN

VLAN150
Port Tagging: UnTagged

- VLAN 1
- VLAN 60
- VLAN 90
- VLAN 120
- VLAN 150
- VLAN 220

Reset to Default Save Close

Switch 3 - Port 4 Configuration

Status
Port Enabled
LACP Disabled

Wired
Speed Auto 100 1000
Duplex Auto Half Full

VLAN Configuration
Add VLAN

VLAN1
Port Tagging: UnTagged

- VLAN 1
- VLAN 60
- VLAN 90
- VLAN 120
- VLAN 150
- VLAN 220

Reset to Default Save Close

Switch 3 - Port 1 Configuration

Status
Port Enabled
LACP Disabled

Wired
Speed Auto 100 1000
Duplex Auto Half Full

VLAN Configuration
Add VLAN

VLAN1
Port Tagging: UnTagged

- VLAN 1
- VLAN 60
- VLAN 90
- VLAN 120
- VLAN 150
- VLAN 220

Reset to Default Save Close

Switch 1 - Port 7 Configuration

Status
Port Enabled
LACP Enabled

Wired
Speed Auto 100 1000
Duplex Auto Half Full

VLAN Configuration
Add VLAN

VLAN60 Port Tagging: Tagged

VLAN90 Port Tagging: Tagged

VLAN120 Port Tagging: Tagged

VLAN150 Port Tagging: Tagged

VLAN220 Port Tagging: Tagged

Reset to Default Save Close

Switch 1 - Port 8 Configuration

Status
Port Enabled
LACP Enabled

Wired
Speed Auto 100 1000
Duplex Auto Half Full

VLAN Configuration
Add VLAN

VLAN60 Port Tagging: Tagged

VLAN90 Port Tagging: Tagged

VLAN120 Port Tagging: Tagged

VLAN150 Port Tagging: Tagged

VLAN220 Port Tagging: Tagged

Reset to Default Save Close

Switch 1 - Port 6 Configuration

Status
Port Enabled
LACP Enabled

Wired
Speed Auto 100 1000
Duplex Auto Half Full

VLAN Configuration
Add VLAN

VLAN60 Port Tagging Tagged	VLAN120 Port Tagging Tagged	VLAN150 Port Tagging Tagged
----------------------------------	-----------------------------------	-----------------------------------

Reset to Default Save Close

Switch 1 - Port 2 Configuration

Status
Port Enabled
LACP Enabled

Wired
Speed Auto 100 1000
Duplex Auto Half Full

VLAN Configuration
Add VLAN

VLAN60 Port Tagging Tagged	VLAN90 Port Tagging Tagged	VLAN120 Port Tagging Tagged
VLAN150 Port Tagging Tagged	VLAN220 Port Tagging Tagged	

Reset to Default Save Close

Switch 1 - Port 1 Configuration

Status
Port Enabled
LACP Enabled

Wired
Speed Auto 100 1000
Duplex Auto Half Full

VLAN Configuration
Add VLAN

VLAN60 Port Tagging Tagged	VLAN90 Port Tagging Tagged	VLAN120 Port Tagging Tagged
VLAN150 Port Tagging Tagged	VLAN220 Port Tagging Tagged	

Reset to Default Save Close

Switch 1 - Port 5 Configuration

Status
Port Enabled
LACP Enabled

Wired
Speed Auto 100 1000
Duplex Auto Half Full

VLAN Configuration
Add VLAN

VLAN60 Port Tagging Tagged	VLAN120 Port Tagging Tagged	VLAN150 Port Tagging Tagged
----------------------------------	-----------------------------------	-----------------------------------

Reset to Default Save Close

Switch 1 - Port 4 Configuration

Status
Port Enabled
LACP Disabled

Wired
Speed Auto 100 1000
Duplex Auto Half Full

VLAN Configuration
Add VLAN

VLAN90
Port Tagging
UnTagged

- VLAN 1
- VLAN 60
- VLAN 90
- VLAN 120
- VLAN 150
- VLAN 220

Reset to Default Save Close

Switch 1 - Port 3 Configuration

Status
Port Enabled
LACP Disabled

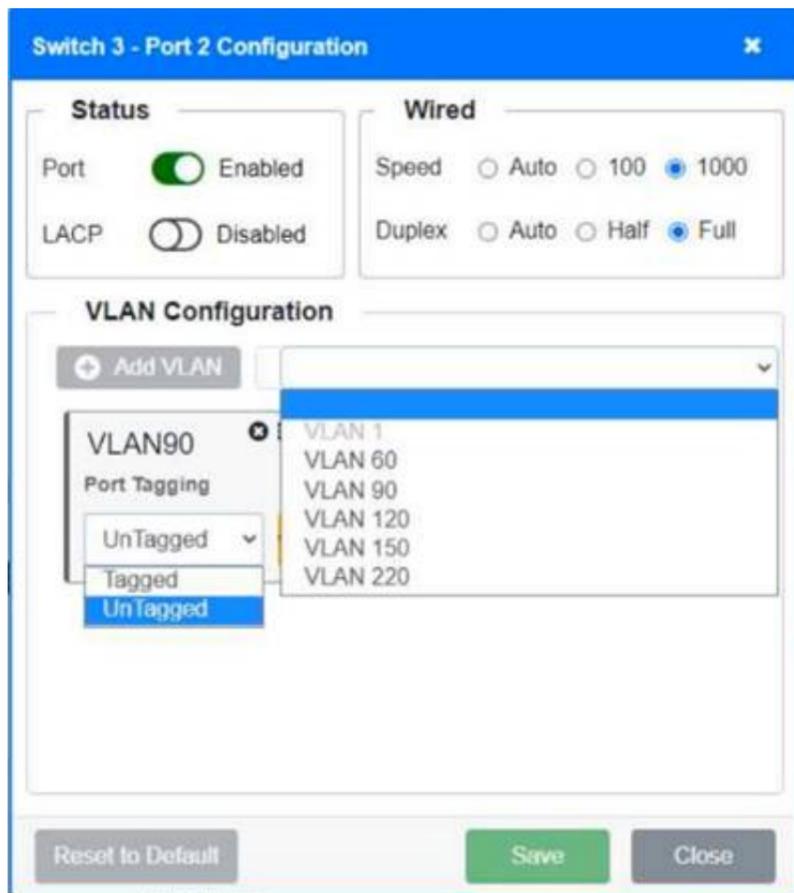
Wired
Speed Auto 100 1000
Duplex Auto Half Full

VLAN Configuration
Add VLAN

VLAN90
Port Tagging
UnTagged

- VLAN 1
- VLAN 60
- VLAN 90
- VLAN 120
- VLAN 150
- VLAN 220

Reset to Default Save Close



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Switch 1 and Switch 2 is the only two switches that can be configured. Only switches linked together with there switch ports needs to be "tagged" and "LACP" needs to be enabled. The other ports must be untagged with no LACP enabled. You only need to assign the correct vlan via each port. 'Speed and Duplex' needs to be Speed=1000 and Duplex=Full, with is by default.

<https://resources.infosecinstitute.com/topic/what-are-tagged-and-untagged-ports/>

NEW QUESTION 239

- (Exam Topic 3)

Many IP security cameras use RTSP to control media playback. Which of the following default transport layer port numbers does RTSP use?

- A. 445
- B. 554
- C. 587
- D. 5060

Answer: B

Explanation:

RTSP stands for Real Time Streaming Protocol and is an application-level network protocol designed for controlling media playback on streaming media servers. RTSP uses the default transport layer port number 554 for both TCP and UDP1. Port 445 is used for SMB (Server Message Block), a protocol for file and printer sharing. Port 587 is used for SMTP (Simple Mail Transfer Protocol), a protocol for sending email messages. Port 5060 is used for SIP (Session Initiation Protocol), a protocol for initiating and managing multimedia sessions.

References: 1 Real Time Streaming Protocol - Wikipedia (https://en.wikipedia.org/wiki/Real_Time_Streaming_Protocol)

NEW QUESTION 241

- (Exam 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: D

Explanation:

VLAN (virtual LAN) tags are used to identify packets as belonging to a particular VLAN. VLANs are used to segment a network into logical sub-networks, and each VLAN is assigned a unique VLAN tag. If the VLAN tag is not configured correctly, the computer may not be able to access network resources.

NEW QUESTION 243

- (Exam Topic 3)

An ISP is providing Internet to a retail store and has terminated its point of connection using a standard Cat 6 pin-out Which of me following terminations should the technician use when running a cable from the ISP's port lo the front desk?

- A. F-type connector
- B. TIA/E1A-56S-B
- C. LC
- D. SC

Answer: B

Explanation:

The termination that the technician should use when running a cable from the ISP's port to the front desk is B. TIA/EIA-568-B. This is a standard pin-out for Cat 6 cables that is used for Ethernet and other network physical layers. It specifies how to arrange the eight wires in an RJ45 connector, which is a common type of connector for network cables.

NEW QUESTION 244

- (Exam Topic 3)

All packets arriving at an interface need to be fully analyzed. Which of the following features should be used to enable monitoring of the packets?

- A. LACP
- B. Flow control
- C. Port mirroring
- D. NetFlow exporter

Answer: C

Explanation:

Port mirroring is a feature that can be used to enable monitoring of all packets arriving at an interface. This feature is used to direct a copy of all traffic passing through the switch to a monitoring device, such as a network analyzer. This allows the switch to be monitored with the network analyzer in order to identify any malicious or suspicious activity. Additionally, port mirroring can be used to troubleshoot network issues, such as latency or poor performance.

NEW QUESTION 245

- (Exam Topic 3)

A help desk technician is concerned that a client's network cable issues may be causing intermittent connectivity. Which of the following would help the technician determine if this is the issue?

- A. Run the show interface command on the switch
- B. Run the traceroute command on the server
- C. Run iperf on the technician's desktop
- D. Ping the client's computer from the router
- E. Run a port scanner on the client's IP address

Answer: A

Explanation:

To determine if a client's network cable issues may be causing intermittent connectivity, the help desk technician can run the show interface command on the switch. This command allows the technician to view the status and statistics of the various interfaces on the switch, including the physical link status and the number of transmitted and received packets. If the interface is experiencing a large number of errors or dropped packets, this could indicate a problem with the network cable or with the connection between the client's device and the switch.

"Cisco routers and switches have a show interfaces IOS command that provides interface statistics/status information, including link state (up/down), speed/duplex, send/receive traffic, cyclic redundancy checks (CRCs), and protocol packet and byte counts."

NEW QUESTION 248

- (Exam Topic 3)

An administrator is setting up a multicast server on a network, but the firewall seems to be dropping the traffic. After logging in to the device, the administrator sees the following entries:

Rule	Action	Source	Destination	Port
1	Deny	Any	172.30.10.50	Any
2	Deny	Any	232.1.4.9	Any
3	Deny	Any	242.9.15.4	Any
4	Deny	Any	175.50.10.10	Any

Which of the following firewall rules is MOST likely causing the issue?

- A. Rule 1
- B. Rule 2
- C. Rule 3
- D. Rule 4

Answer: A

NEW QUESTION 249

- (Exam Topic 3)

Switch 3 was recently added to an existing stack to extend connectivity to various parts of the network. After the update, new employees were not able to print to the main networked copiers from their workstations. Following are the port configurations for the switch stack in question:

Switch 1:

	Ports 1–12	Ports 13–24	Ports 25–36	Ports 37–44	Ports 45–48
Description	Workstations	Printers	Workstations	Wireless APs	Uplink
VLAN	20	60	20	80	20/60/80
Duplex	Full	Full	Full	Full	Full
Status	Active	Active	Active	Active	Active

Switch 2:

	Ports 1–12	Ports 13–24	Ports 25–36	Ports 37–44	Ports 45–48
Description	Workstations	Printers	Workstations	Wireless APs	Uplink
VLAN	20	60	20	80	20/60/80
Duplex	Full	Full	Full	Full	Full
Status	Active	Active	Shut down	Active	Active

Switch 3:

	Ports 1–12	Ports 13–24	Ports 25–36	Ports 37–44	Ports 45–48
Description	Workstations	Printers	Workstations	Wireless APs	Uplink
VLAN	20	80	20	80	20/60/80
Duplex	Full	Full	Full	Full	Full
Status	Active	Shut down	Shut down	Shut down	Active

Which of the following should be configured to resolve the issue? (Select TWO).

- A. Enable the printer ports on Switch 3.
- B. Reconfigure the duplex settings on the printer ports on Switch 3.
- C. Reconfigure the VLAN on an printer ports to VLAN 20.
- D. Enable all ports that are shut down on me stack.
- E. Reconfigure me VLAN on the printer ports on Switch 3.
- F. Enable wireless APs on Switch 3.

Answer: AE

NEW QUESTION 254

- (Exam Topic 3)

A public, wireless ISP mounts its access points on top of traffic signal poles. Fiber-optic cables are installed from a fiber switch through the ground and up the pole to a fiber-copper media converter, and then connected to the AP. In one location, the switchport is showing sporadic link loss to the attached AP. A similar link loss is not seen at the AP interface. The fiber-optic cable is moved to another unused switchport with a similar result. Which of the following steps should the assigned technician complete NEXT?

- A. Disable and enable the switchport.
- B. Clean the fiber-optic cable ends.
- C. Replace the media converter.
- D. Replace the copper patch cord.

Answer: B

Explanation:

Fiber-optic cables are cables that use light signals to transmit data over long distances at high speeds.

Fiber-optic cables are sensitive to dirt, dust, moisture, or other contaminants that can interfere with the light signals and cause link loss or signal degradation. To troubleshoot link loss issues with fiber-optic cables, one of the steps that should be completed next is to clean the fiber-optic cable ends with a lint-free cloth or a specialized cleaning tool. Cleaning the fiber-optic cable ends can remove any dirt or debris that may be blocking or reflecting the light signals and restore the link quality.

NEW QUESTION 258

- (Exam 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 262

- (Exam Topic 3)

A technician needs to configure a routing protocol for an internet-facing edge router. Which of the following routing protocols will the technician MOST likely use?

- A. BGP
- B. RIPv2
- C. OSPF
- D. EIGRP

Answer: A

NEW QUESTION 266

- (Exam Topic 3)

A technician knows the MAC address of a device and is attempting to find the device's IP address. Which of the following should the technician look at to find the IP address? (Select TWO).

- A. ARP table
- B. DHCP leases
- C. IP route table
- D. DNS cache
- E. MAC address table
- F. STP topology

Answer: BE

NEW QUESTION 270

- (Exam 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 275

- (Exam Topic 3)

A network administrator needs to provide evidence to confirm that recent network outages were caused by increased traffic generated by a recently released application. Which of the following actions will BEST support the administrator's response?

- A. Generate a network baseline report for comparison.
- B. Export the firewall traffic logs.
- C. Collect the router's NetFlow data.
- D. Plot interface statistics for dropped packets.

Answer: C

NEW QUESTION 278

- (Exam Topic 3)

A network administrator is getting reports of some internal users who cannot connect to network resources. The users slate they were able to connect last week, but not today. No changes have been configured on the network devices or server during the last few weeks. Which of the following is the MOST likely cause of the issue?

- A. The client DHCP scope is fully utilized
- B. The wired network is experiencing electrical interference
- C. The captive portal is down and needs to be restarted
- D. SNMP traps are being received
- E. The packet counter on the router interface is high.

Answer: A

NEW QUESTION 281

- (Exam Topic 3)

A technician discovered that some information on the local database server was changed during a file transfer to a remote server. Which of the following should concern the technician the MOST?

- A. Confidentiality
- B. Integrity
- C. DDoS
- D. On-path attack

Answer: B

Explanation:

The technician should be most concerned about data integrity and security. If information on the local database server was changed during a file transfer to a remote server, it could indicate that unauthorized access or modifications were made to the data. It could also indicate a failure in the file transfer process, which could result in data loss or corruption. The technician should investigate the cause of the changes and take steps to prevent it from happening again in the future. Additionally, they should verify the integrity of the data and restore it from a backup if necessary to ensure that the correct and complete data is available. The technician should also take appropriate actions such as notifying the system administrator and management of the incident, and following the incident

management process to minimize the damage caused by the incident.

NEW QUESTION 283

- (Exam Topic 3)

Which of the following is used to provide disaster recovery capabilities to spin up an critical devices using internet resources?

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

Answer: A

NEW QUESTION 286

- (Exam 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 287

- (Exam 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 292

- (Exam 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 294

- (Exam Topic 3)

Which of the following would be the BEST choice to connect branch sites to a main office securely?

- A. VPN headend
- B. Proxy server
- C. Bridge
- D. Load balancer

Answer: A

Explanation:

Host-to-Site, or Client-to-Site, VPN allows for remote servers, clients, and other hosts to establish tunnels through a VPN gateway (or VPN headend) via a private network. The tunnel between the headend and the client host encapsulates and encrypts data.

NEW QUESTION 297

- (Exam Topic 3)

A company cell phone was stolen from a technician's vehicle. The cell phone has a passcode, but it contains sensitive information about clients and vendors. Which of the following should also be enabled?

- A. Factory reset
- B. Autolock
- C. Encryption

D. Two-factor authentication

Answer: C

NEW QUESTION 298

- (Exam Topic 3)

A systems administrator wants to use the least amount of equipment to segment two departments that have cables terminating in the same room. Which of the following would allow this to occur?

- A. A load balancer
- B. A proxy server
- C. A Layer 3 switch
- D. A hub
- E. A Layer 7 firewall
- F. The RSSI was not strong enough on the link

Answer: C

NEW QUESTION 300

- (Exam Topic 3)

ARP spoofing would normally be a part of:

- A. an on-path attack.
- B. DNS poisoning.
- C. a DoS attack.
- D. a rogue access point.

Answer: A

NEW QUESTION 301

- (Exam Topic 3)

A large metropolitan city is looking to standardize the ability for police department laptops to connect to the city government's VPN. The city would like a wireless solution that provides the largest coverage across the city with a minimal number of transmission towers. Latency and overall bandwidth needs are not high priorities. Which of the following would BEST meet the city's needs?

- A. 5G
- B. LTE
- C. Wi-Fi 4
- D. Wi-Fi 5
- E. Wi-Fi 6

Answer: B

NEW QUESTION 303

- (Exam Topic 3)

A network technician recently installed 35 additional workstations. After installation, some users are unable to access network resources. Many of the original workstations that are experiencing the network access issue were offline when the new workstations were turned on. Which of the following is the MOST likely cause of this issue?

- A. Incorrect VLAN setting
- B. Insufficient DHCP scope
- C. Improper NIC setting
- D. Duplicate IP address

Answer: B

NEW QUESTION 307

- (Exam 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 312

- (Exam Topic 3)

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

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

Answer: C

Explanation:

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

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

NEW QUESTION 313

- (Exam Topic 3)

A network technician is working at a new office location and needs to connect one laptop to another to transfer files. The laptops are newer models and do not have Ethernet ports. Access points are not available either. Which Of the following types Of wireless network SSIDs does the network technician need to configure to be able to connect the laptops together?

- A. Independent Basic Service Set
- B. Extended Service Set
- C. Distribution System Service
- D. Basic Service Set

Answer: A

Explanation:

An Independent Basic Service Set (IBSS) is a type of wireless network that does not require an access point or a wired network. An IBSS allows wireless devices to communicate directly with each other using ad hoc mode. An IBSS is also known as an ad hoc network or a peer-to-peer network. A network technician can configure an IBSS to connect two laptops together and transfer files.

References: Network+ Study Guide Objective 1.4: Explain the properties and characteristics of TCP/IP

NEW QUESTION 317

- (Exam 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 interlace. 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 322

- (Exam Topic 3)

Which of the following is considered a physical security detection device?

- A. Cameras
- B. Biometric readers
- C. Access control vestibules
- D. Locking racks

Answer: A

NEW QUESTION 326

- (Exam Topic 3)

A network administrator wants to test the throughput of a new metro Ethernet circuit to verify that its performance matches the requirements specified in the SLA. Which of the following would BEST help measure the throughput?

- A. iPerf
- B. Ping
- C. NetFlow
- D. Netstat

Answer: A

NEW QUESTION 331

- (Exam Topic 3)

An international company is transferring its IT assets including a number of WAPs from the United States to an office in Europe for deployment. Which of the following considerations should the company research before implementing the wireless hardware?

- A. WPA2 cipher
- B. Regulatory Impacts
- C. CDMA configuration
- D. 802.11 standards

Answer: B

Explanation:

When transferring IT assets, including wireless access points (WAPs), from one country to another, it's important to research the regulatory impacts of the move. Different countries have different regulations and compliance requirements for wireless devices, such as frequency bands, power levels, and encryption standards. Failing to comply with these regulations can result in fines or other penalties.

NEW QUESTION 334

- (Exam Topic 3)

A network administrator is trying to add network redundancy for the server farm. Which of the following can the network administrator configure to BEST provide this capability?

- A. VRRP
- B. DNS
- C. UPS
- D. RPO

Answer: A

Explanation:

VRRP is an open standard protocol, which is used to provide redundancy in a network. It is a network layer protocol (protocol number-112). The number of routers (group members) in a group acts as a virtual logical router which will be the default gateway of all the local hosts. If one router goes down, one of the other group members can take place for the responsibilities for forwarding the traffic.

NEW QUESTION 337

- (Exam Topic 3)

An employee working in a warehouse facility is experiencing interruptions in mobile applications while walking around the facility. According to a recent site survey, the WLAN comprises autonomous APs that are directly connected to the internet, providing adequate signal coverage. Which of the following is the BEST solution to improve network stability?

- A. Implement client roaming using an extended service deployment employing a wireless controller.
- B. Remove omnidirectional antennas and adopt a directional bridge.
- C. Ensure all APs of the warehouse support MIMO and Wi-Fi 4.
- D. Verify that the level of EIRP power settings is set to the maximum permitted by regulations.

Answer: A

Explanation:

Client roaming refers to the ability of a wireless device to seamlessly connect to a different access point (AP) as the user moves around the facility. This can help to improve network stability and reduce interruptions in mobile applications. An extended service deployment is a type of wireless network configuration that uses multiple APs to cover a large area, such as a warehouse facility. By using a wireless controller to manage the APs, the network can be better optimized for client roaming, which can improve network stability.

"Roaming With multiple WAPs in an ESS, clients will connect to whichever WAP has the strongest signal. As clients move through the space covered by the broadcast area, they will change WAP connections seamlessly, a process called roaming."

NEW QUESTION 338

- (Exam Topic 3)

A network administrator is investigating reports about network performance and finds high utilization on a switch uplink. The administrator is unsure whether this is an anomaly or normal behavior that will require an upgrade to resolve. Which Of the following should the administrator reference to gain historical perspective?

- A. Device configuration review
- B. ARP table export
- C. Service-level agreement
- D. Network performance baseline

Answer: D

Explanation:

A network performance baseline is a set of metrics that represents the normal or expected behavior of a network under various conditions and scenarios. A network performance baseline can help a network administrator to investigate reports about network performance by comparing the current metrics with the historical metrics and identifying any deviations or anomalies. A network performance baseline can also help to plan and justify network upgrades by showing the trends and patterns of network utilization and performance over time.

A device configuration review is a process that involves checking and verifying the settings and parameters of a network device, such as a switch, router, firewall, or server. A device configuration review can help a network administrator to troubleshoot network issues by finding and fixing any errors, inconsistencies, or vulnerabilities in the device configuration. A device configuration review can also help to ensure compliance with security policies and best practices by applying the latest updates and patches to the device.

An ARP table export is a file that contains the contents of the ARP (Address Resolution Protocol) table of a network device. The ARP table is a data structure that maps IP addresses to MAC addresses on a local network. An ARP table export can help a network administrator to monitor and manage the network devices on a local network by showing their IP addresses and MAC addresses. An ARP table export can also help to detect and prevent ARP spoofing attacks by identifying any duplicate or malicious entries in the ARP table.

A service-level agreement (SLA) is a contract that defines the expectations and responsibilities of both parties in terms of service quality, availability, performance,

and response time. An SLA can help a network administrator to provide and maintain a satisfactory level of service to the customers or users of the network by setting and measuring specific goals and metrics. An SLA can also help to resolve any disputes or issues that may arise between the service provider and the service consumer by establishing clear terms and conditions for the service delivery.

NEW QUESTION 343

- (Exam Topic 3)

An engineer needs to restrict the database servers that are in the same subnet from communicating with each other. The database servers will still need to communicate with the application servers in a different subnet. In some cases, the database servers will be clustered, and the servers will need to communicate with other cluster members. Which of the following technologies will be BEST to use to implement this filtering without creating rules?

- A. Private VLANs
- B. Access control lists
- C. Firewalls
- D. Control plane policing

Answer: A

Explanation:

"Use private VLANs: Also known as port isolation, creating a private VLAN is a method of restricting switch ports (now called private ports) so that they can communicate only with a particular uplink. The private VLAN usually has numerous private ports and only one uplink, which is usually connected to a router, or firewall."

NEW QUESTION 348

- (Exam 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 351

- (Exam Topic 3)

A building was recently remodeled in order to expand the front lobby. Some mobile users have been unable to connect to the available network jacks within the new lobby, while others have had no issues. Which of the following is the MOST likely cause of the connectivity issues?

- A. LACP
- B. Port security
- C. 802.11ax
- D. Duplex settings

Answer: B

Explanation:

Port security is a feature that allows a network device to limit the number and type of MAC addresses that can access a port. Port security can prevent unauthorized devices from connecting to the network through an available network jack. Therefore, port security is the most likely cause of the connectivity issues for some mobile users in the new lobby.

NEW QUESTION 355

- (Exam Topic 3)

An AP uses a 98ft (30m) Cat 6 cable to connect to an access switch. The cable is wired through a duct close to a three-phase motor installation. Anytime the three-phase is turned on, all users connected to the switch experience high latency on the network. Which Of the following is MOST likely the cause Of the issue?

- A. Interference
- B. Attenuation
- C. Open circuit
- D. Short circuit

Answer: A

Explanation:

Interference is a phenomenon that occurs when unwanted signals or noise affect the transmission or reception of data signals on a network. Interference can cause network issues such as high latency, low throughput, packet loss, or errors. Interference can be caused by various sources, such as electromagnetic fields, radio waves, power lines, or electrical devices. In this scenario, the three-phase motor installation is a source of interference that affects the Cat 6 cable that connects the AP to the access switch. The cable is wired through a duct close to the motor installation, which exposes it to the electromagnetic fields generated by the motor. Anytime the motor is turned on, the interference causes high latency for all users connected to the switch.

NEW QUESTION 357

- (Exam Topic 3)

An administrator notices that after contact with several switches in an MDF they failed due to electrostatic discharge. Which of the Mowing sensors should the administrator deploy to BEST monitor static electricity conditions in the MDF?

- A. Temperature
- B. Humidity
- C. Smoke
- D. Electrical

Answer: B

Explanation:

"Humidity control prevents the buildup of static electricity and reduces the chances of electronic components becoming vulnerable to damage from electrostatic shock; not only can very low humidity lead to increased static electricity, but it can also contribute to health problems, such as skin irritation."

NEW QUESTION 361

- (Exam Topic 3)

A technician is installing the Wi-Fi infrastructure for legacy industrial machinery at a warehouse. The equipment only supports 802.11a and 802.11b standards. Speed of transmission is the top business requirement. Which of the following is the correct maximum speed for this scenario?

- A. 11Mbps
- B. 54Mbps
- C. 128Mbps
- D. 144Mbps

Answer: B

Explanation:

802.11b (Wi-Fi 1)
11 Mbps
100 meter maximum effective range
802.11a (Wi-Fi 2)
54 Mbps
50 meter maximum effective range

NEW QUESTION 363

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