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

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

Answer: A

Explanation:
RDP (Remote Desktop Protocol) is the best option for a network technician to use when installing new
software on a Windows-based server in a different geographical location. This protocol allows the technician to connect to the server remotely and control it as if they were physically present.
References:
- Network+ N10-007 Certification Exam Objectives, Objective 2.2: Given a scenario, implement the appropriate network-based security and troubleshoot common connectivity issues.

NEW QUESTION 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://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://www.techopedia.com/definition/25597/reverse-address-resolution-protocol-rarp

NEW QUESTION 10
- (Exam Topic 1)
At which of the following OSI model layers would a technician find an IP header?

A. Layer 1
B. Layer 2
C. Layer 3
D. Layer 4

Answer: C

Explanation:
An IP header can be found at the third layer of the OSI model, also known as the network layer. This layer is responsible for logical addressing, routing, and forwarding of data packets.
References:
- CompTIA Network+ Certification Study Guide, Exam N10-007, Fourth Edition, Chapter 2: Network Models, p. 82

NEW QUESTION 10
- (Exam Topic 1)
A network administrator discovers that users in an adjacent building are connecting to the company's guest wireless network to download inappropriate material. Which of the following can the administrator do to MOST easily mitigate this issue?

A. Reduce the wireless power levels
B. Adjust the wireless channels
C. Enable wireless client isolation
D. Enable wireless port security

Answer: A

Explanation:
Reducing the wireless power levels can limit the range of the guest wireless network and prevent users in an adjacent building from connecting to it. Adjusting the wireless channels or enabling wireless client isolation will not affect the signal strength or coverage of the guest network. Enabling wireless port security will not work on a guest network that does not use authentication or MAC address filtering. References: CompTIA Network+ Certification Exam Objectives Version 2.0 (Exam Number: N10-006), Domain 2.0 Network Operations, Objective 2.5 Given a scenario, implement appropriate wireless configuration settings; Guest WiFi Security - Cisco Umbrella

NEW QUESTION 11
- (Exam Topic 1)
The management team needs to ensure unnecessary modifications to the corporate network are not permitted and version control is maintained. Which of the following documents would BEST support this?

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

Answer: C

Explanation:
A change management policy is a document that outlines the procedures and guidelines for making changes to a network or system, including how changes are approved, tested, and implemented. By following a change management policy, organizations can ensure that unnecessary modifications to the network are not permitted and version control is maintained. References:
- Network+ N10-008 Objectives: 1.6 Given a scenario, implement network configuration and change management best practices.

NEW QUESTION 16
- (Exam Topic 1)
A technician is writing documentation regarding a company's server farm. The technician needs to confirm the server name for all Linux servers. Which of the following commands should the technician run?

A. ipconfig

B. nslookup
C. arp
D. route

Answer: B

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

NEW QUESTION 20
- (Exam Topic 1)
A network engineer performs the following tasks to increase server bandwidth: Connects two network cables from the server to a switch stack
Configure LACP on the switchports
Verifies the correct configurations on the switch interfaces Which of the following needs to be configured on the server?

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

Answer: C

Explanation:
NIC teaming is a technique that combines two or more network interface cards (NICs) on a server into a single logical interface that can increase bandwidth, provide redundancy, and balance traffic. NIC teaming can be configured with different modes and algorithms depending on the desired outcome. Link Aggregation Control Protocol (LACP) is a protocol that enables NIC teaming by dynamically bundling multiple links between two devices into one logical link. References:
https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0), https://docs.microsoft.com/en-us/windows-server/networking/technologies/nic-teaming/nic-teaming

NEW QUESTION 23
- (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 26
- (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 30

- (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://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst9500/software/release/16-10/configuration_guide/se

NEW QUESTION 31
- (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 33
- (Exam Topic 1)
Which of the following can be used to centrally manage credentials for various types of administrative privileges on configured network devices?

A. SSO
B. TACACS+
C. Zero Trust
D. Separation of duties
E. Multifactor authentication

Answer: B

Explanation:
TACACS+ (Terminal Access Controller Access Control System Plus) can be used to centrally manage credentials for various types of administrative privileges on configured network devices. This protocol separates authentication, authorization, and accounting (AAA) functions, providing more granular control over access to network resources.
References:
- Network+ N10-007 Certification Exam Objectives, Objective 4.2: Given a scenario, implement secure network administration principles.

NEW QUESTION 37
- (Exam Topic 1)
A network administrator is implementing OSPF on all of a company’s network devices. Which of the following will MOST likely replace all the company’s hubs?

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

Answer: A

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

NEW QUESTION 38
- (Exam Topic 1)
A technician is installing a cable modem in a SOHO. Which of the following cable types will the technician MOST likely use to connect a modem to the ISP?

A. Coaxial
B. Single-mode fiber
C. Cat 6e
D. Multimode fiber

Answer: A

Explanation:
Coaxial cable is a type of cable that consists of a central copper conductor surrounded by an insulating layer and a braided metal shield. Coaxial cable is commonly used to connect a cable modem to an ISP by transmitting data over cable television networks. Coaxial cable can support high bandwidth and long distances with minimal interference or attenuation. References: https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0), https://www.techopedia.com/definition/4027/coaxial-cable

NEW QUESTION 43
- (Exam Topic 1)
A technician is searching for a device that is connected to the network and has the device's physical network address. Which of the following should the technician review on the switch to locate the device's network port?

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

Answer: C

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

NEW QUESTION 47
- (Exam Topic 1)
Within the realm of network security, Zero Trust:

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

Answer: A

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

NEW QUESTION 48
- (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 53
- (Exam Topic 1)
Which of the following ports is commonly used by VoIP phones?

A. 20
B. 143
C. 445
D. 5060

Answer: D

Explanation:
TCP/UDP port 5060 is commonly used by VoIP phones. It is the default port for SIP (Session Initiation Protocol), which is a signaling protocol that establishes, modifies, and terminates multimedia sessions over IP networks. SIP is widely used for VoIP applications such as voice and video calls. References: https://www.voip-info.org/session-initiation-protocol/

NEW QUESTION 57
- (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 61
- (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 64
- (Exam Topic 1)
A technician needs to configure a Linux computer for network monitoring. The technician has the following information:
Linux computer details:

Interface	IP address	MAC address
eth0	10.1.2.24	A1:B2:C3:F4:E5:D6

Switch mirror port details:

Interface	IP address	MAC address
eth1	10.1.2.3	A1:B2:C3:D4:E5:F6

After connecting the Linux computer to the mirror port on the switch, which of the following commands should the technician run on the Linux computer?

A. ifconfig ecth0 promisc
B. ifconfig eth1 up
C. ifconfig eth0 10.1.2.3
D. ifconfig eth1 hw ether A1:B2:C3:D4:E5:F6

Answer: A

Explanation:
The ifconfig eth0 promisc command should be run on the Linux computer to enable promiscuous mode, which allows the computer to capture all network traffic passing through the switch mirror port. References: CompTIA Network+ Certification Study Guide, Chapter 7: Network Devices.

NEW QUESTION 65
- (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 implements 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://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 67
- (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 69
- (Exam Topic 1)
An engineer is configuring redundant network links between switches. Which of the following should the engineer enable to prevent network stability issues?

A. 802.1Q
B. STP
C. Flow control
D. CSMA/CD

Answer: B

Explanation:
Spanning Tree Protocol (STP) should be enabled when configuring redundant network links between switches. STP ensures that only one active path is used at a time, preventing network loops and stability issues.
References:
- CompTIA Network+ Certification Study Guide

NEW QUESTION 72
- (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

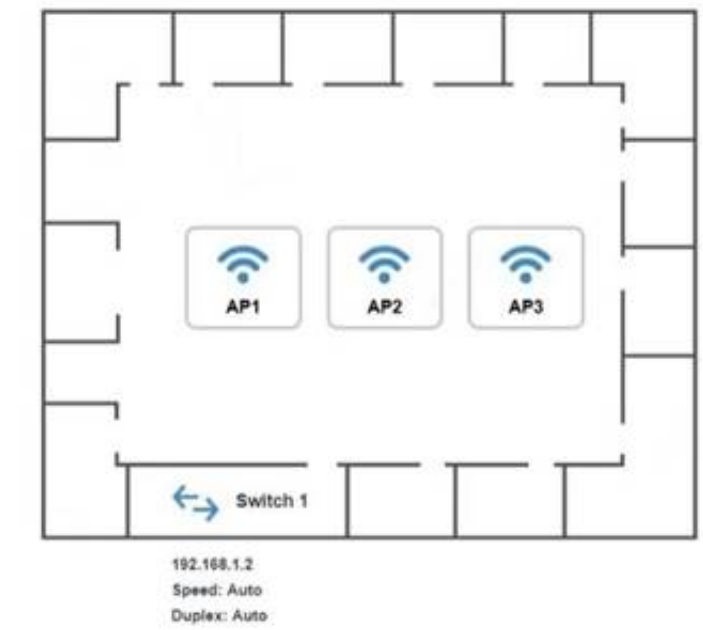
NEW QUESTION 75
- (Exam Topic 1)
A website administrator is concerned the company's static website could be defaced by hacktivists or used as a pivot point to attack internal systems. Which of the following should a network security administrator recommend to assist with detecting these activities?

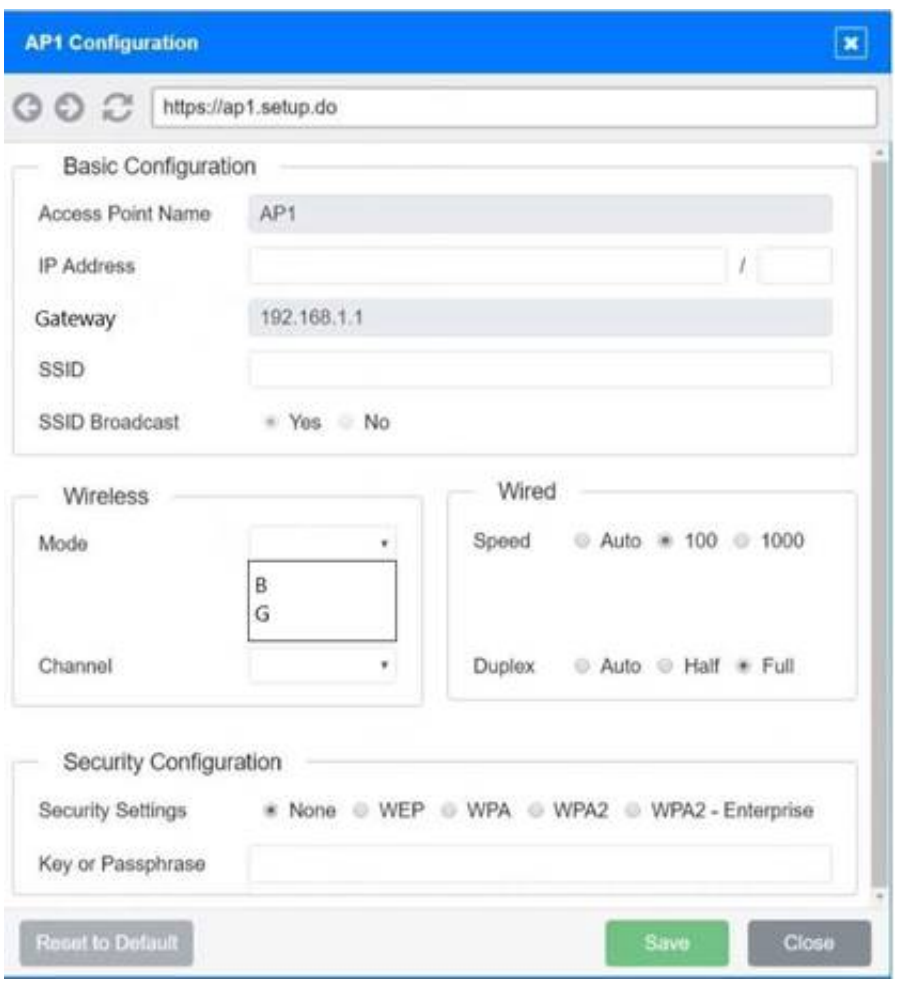
A. Implement file integrity monitoring.
B. Change the default credentials.
C. Use SSL encryption.
D. Update the web-server software.

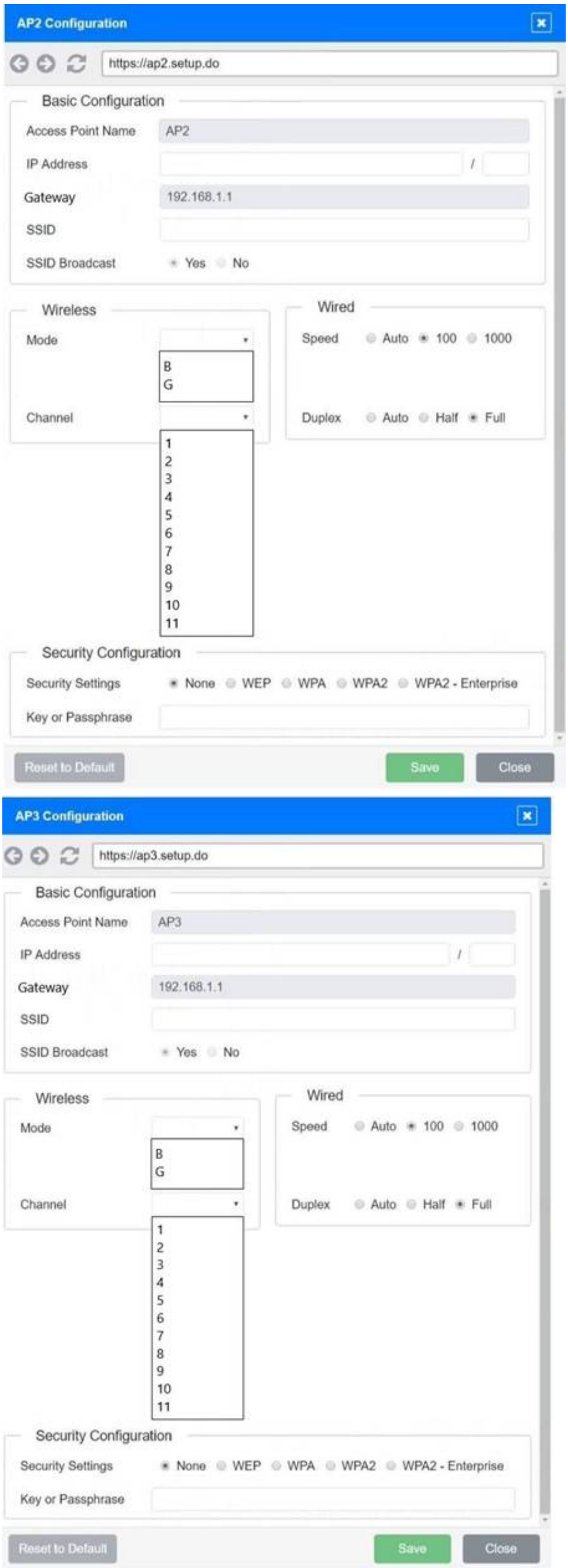
Answer: A

Explanation:
Implementing file integrity monitoring (FIM) would assist with detecting activities such as website defacement or internal system attacks. FIM is a process that monitors and alerts on changes to files or directories that are critical for security or functionality. FIM can help detect unauthorized modifications, malware infections, data breaches, or configuration errors. FIM can also help with compliance and auditing requirements. References:
https://www.tripwire.com/state-of-security/security-data-protection/cyber-security/what-is-file-integrity-monitor

NEW QUESTION 78
- (Exam Topic 1)
SIMULATION
You have been tasked with setting up a wireless network in an office. The network will consist of 3 Access Points and a single switch. The network must meet the following parameters:
The SSIDs need to be configured as CorpNet with a key of S3cr3t! The wireless signals should not interfere with each other
The subnet the Access Points and switch are on should only support 30 devices maximum The Access Points should be configured to only support TKIP clients at a maximum speed INSTRUCTONS
Click on the wireless devices and review their information and adjust the settings of the access points to meet the given requirements.
If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.



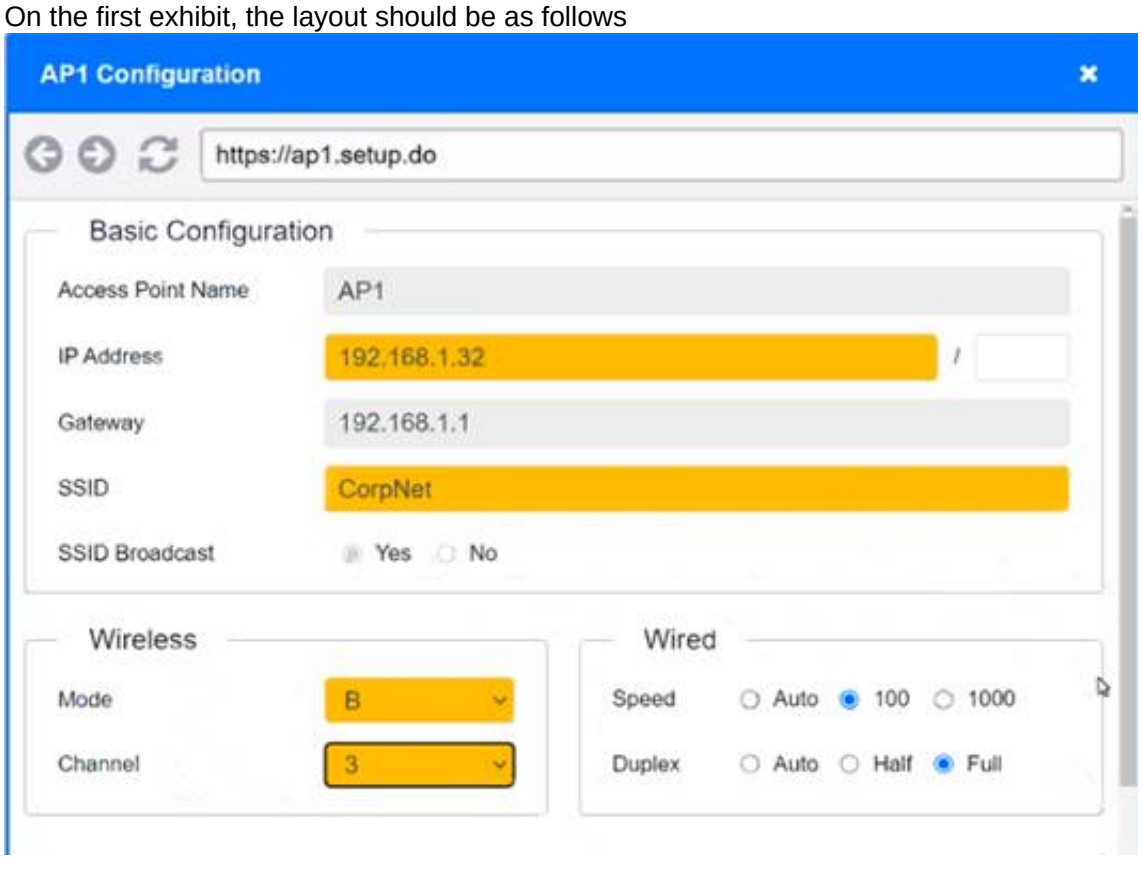




A. Mastered
B. Not Mastered

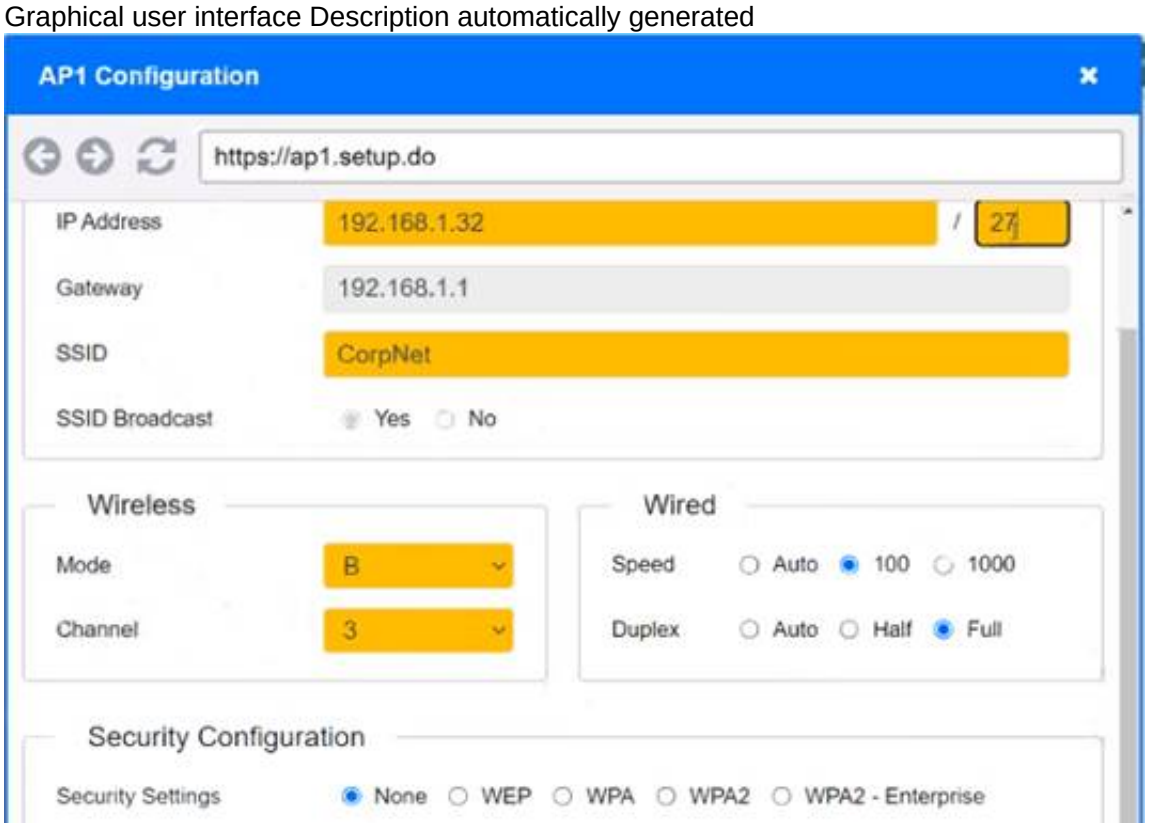
Answer: A

Explanation:
On the first exhibit, the layout should be as follows



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

Graphical user interface Description automatically generated



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

Graphical user interface Description automatically generated

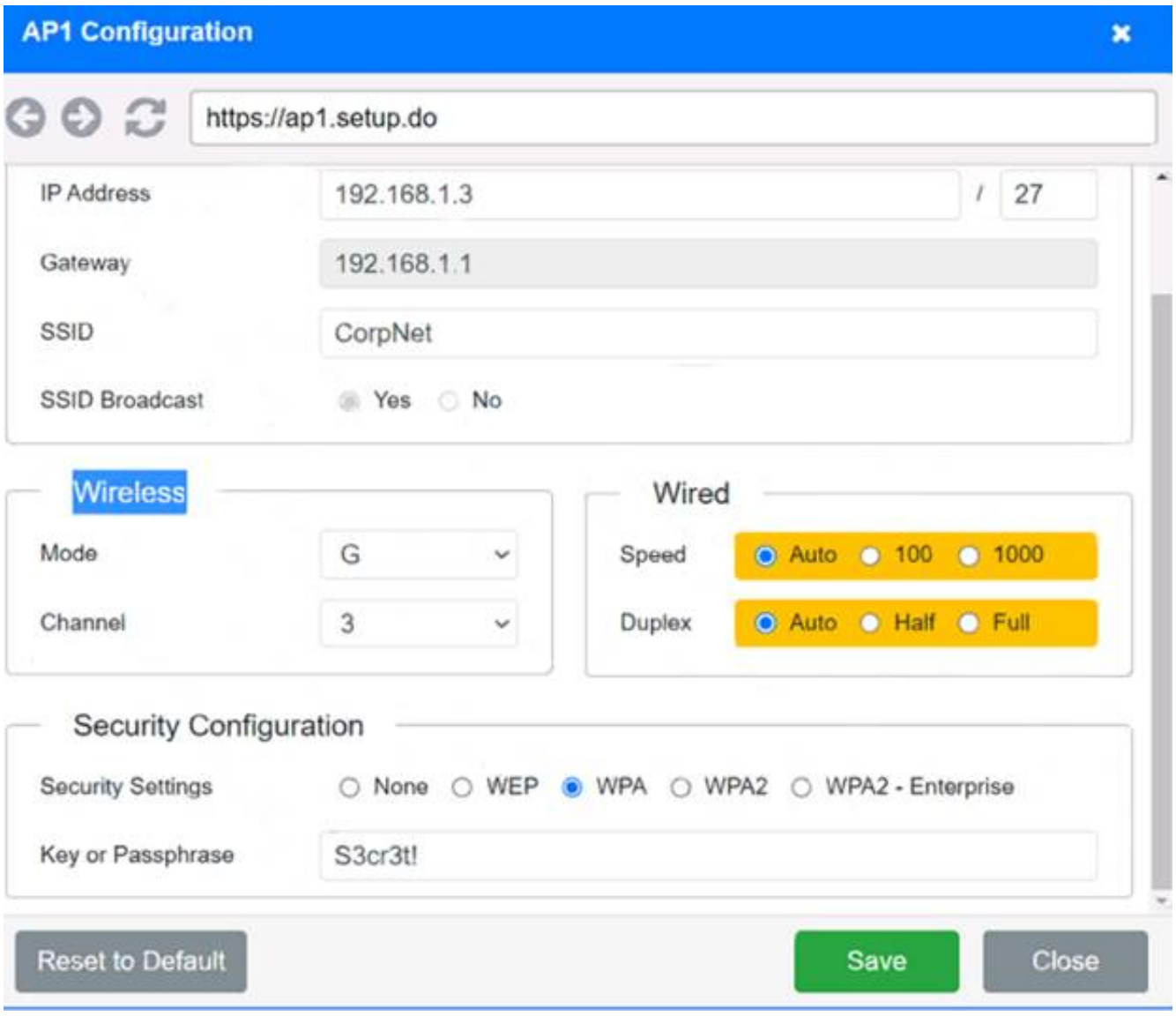
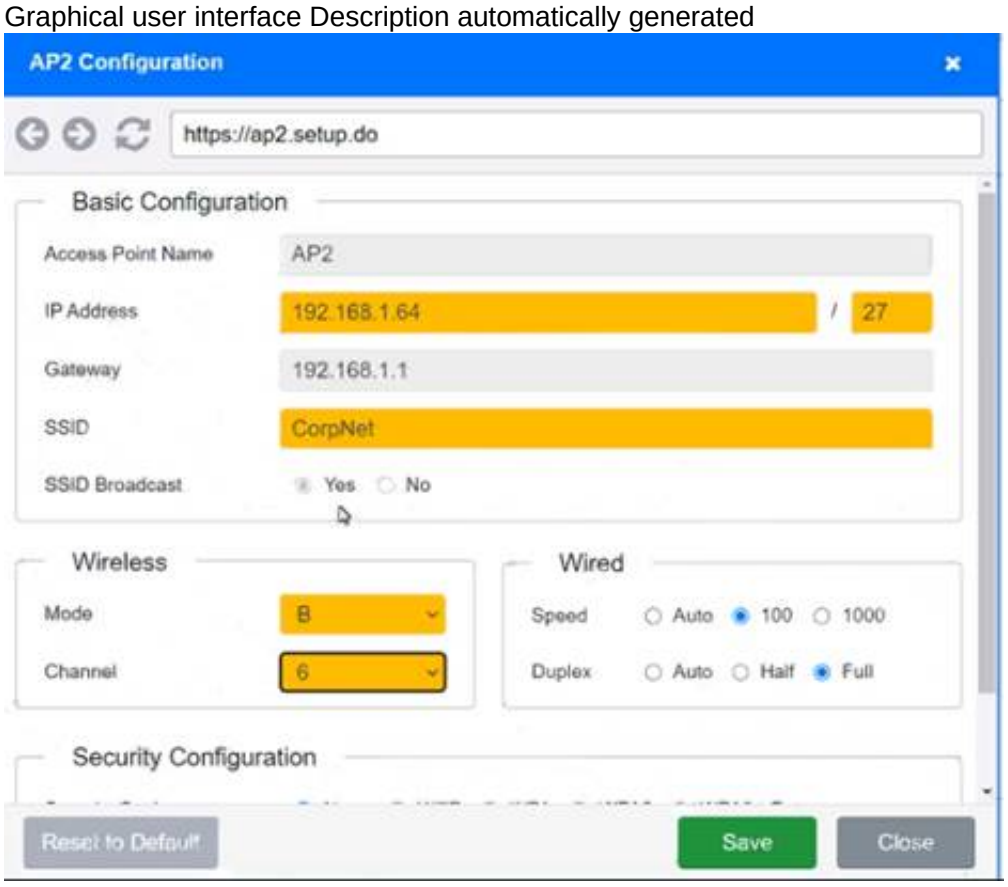


Exhibit 2 as follows Access Point Name AP2
Graphical user interface Description automatically generated



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

Graphical user interface Description automatically generated

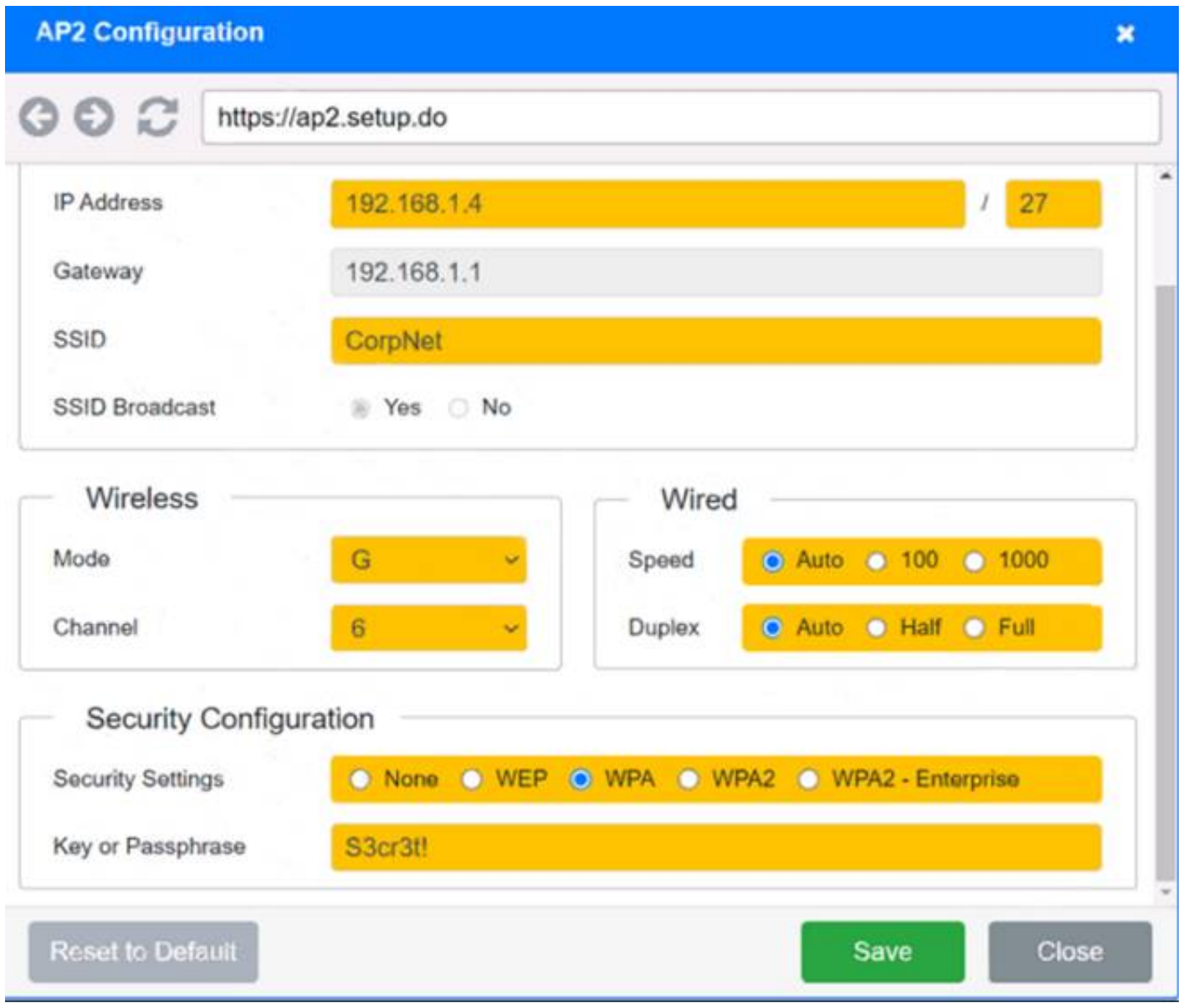
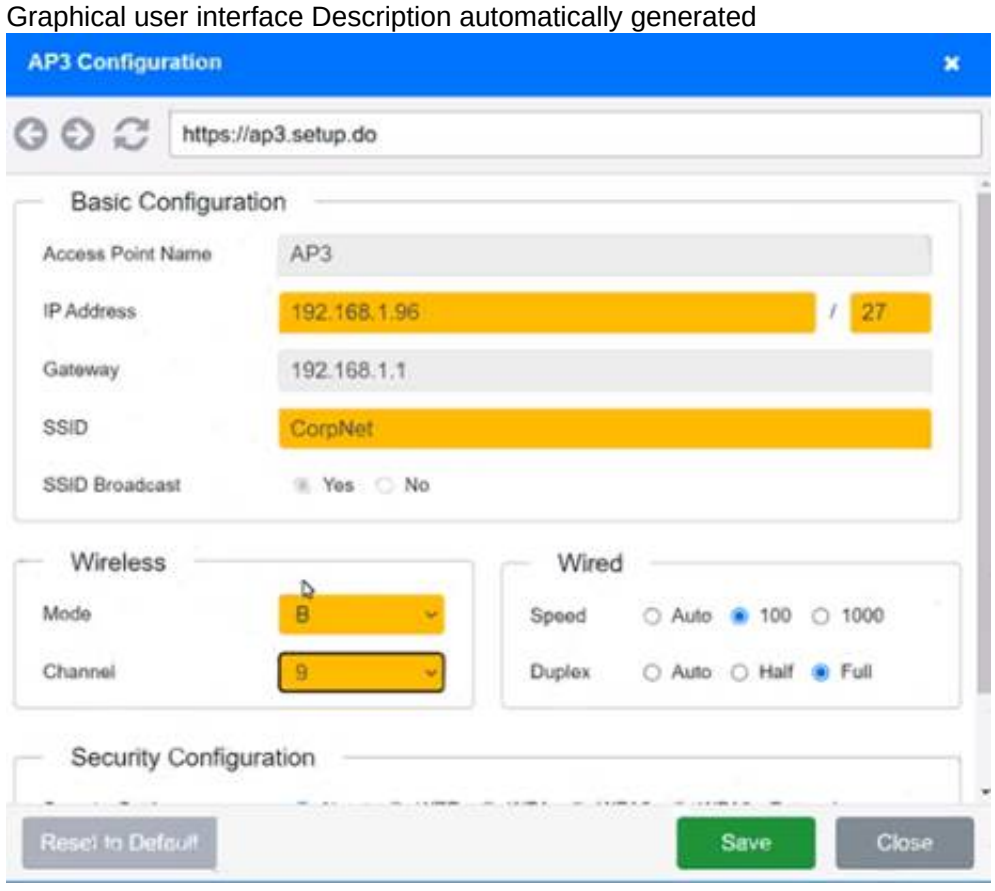
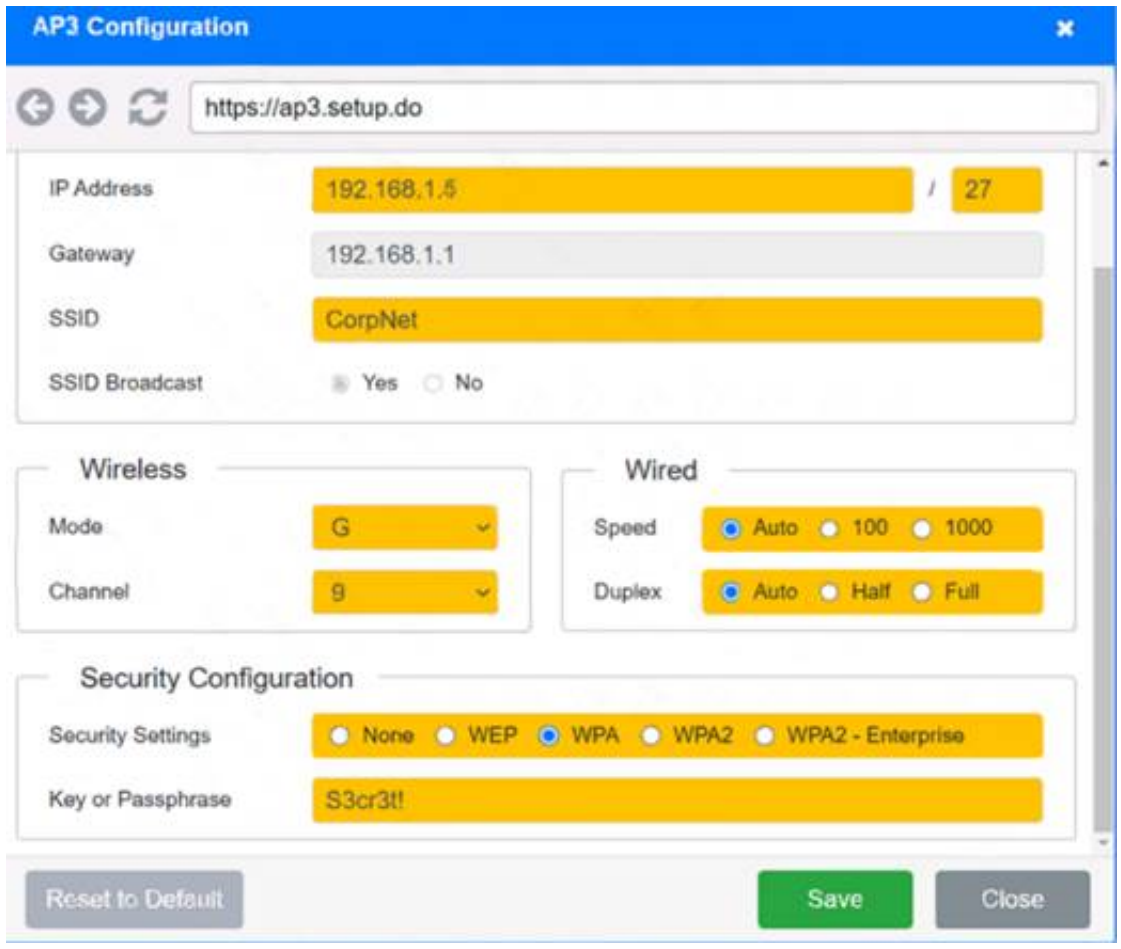


Exhibit 3 as follows Access Point Name AP3
Graphical user interface Description automatically generated



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

Graphical user interface Description automatically generated



NEW QUESTION 80
- (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 85
- (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 88
- (Exam Topic 1)
Which of the following BEST describes a network appliance that warns of unapproved devices that are accessing the network?

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

Answer: D

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

NEW QUESTION 92
- (Exam Topic 1)
Which of the following systems would MOST likely be found in a screened subnet?

A. RADIUS
B. FTP
C. SQL
D. LDAP

Answer: B

Explanation:
FTP (File Transfer Protocol) is a system that would most likely be found in a screened subnet. A screened subnet, or triple-homed firewall, is a network architecture where a single firewall is used with three network interfaces. It provides additional protection from outside cyber attacks by adding a perimeter network to
isolate or separate the internal network from the public-facing internet1. A screened subnet typically hosts systems that need to be accessed by both internal and external users, such as web servers, email servers, or FTP servers. References:
https://www.techtarget.com/searchsecurity/definition/screened-subnet#:~:text=A%20screened%20subnet%2C%
1

NEW QUESTION 94
- (Exam Topic 1)
A network technician needs to ensure outside users are unable to telnet into any of the servers at the datacenter. Which of the following ports should be blocked when checking firewall configuration?

A. 22
B. 23
C. 80
D. 3389
E. 8080

Answer: B

Explanation:
Port 23 should be blocked when checking firewall configuration to prevent outside users from telnetting into any of the servers at the datacenter. Port 23 is the default port for Telnet, which is an insecure protocol that allows remote access to servers and network devices. Telnet sends data in clear text, which can be easily intercepted and compromised by attackers. A more secure alternative is SSH, which uses port 22 and encrypts data. References:
https://www.cisco.com/c/en/us/support/docs/ip/routing-information-protocol-rip/13788-3.html

NEW QUESTION 99
- (Exam Topic 1)
Which of the following connector types would have the MOST flexibility?

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

Answer: A

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

NEW QUESTION 103
- (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 106
- (Exam Topic 1)
Which of the following technologies provides a failover mechanism for the default gateway?

A. FHRP
B. LACP
C. OSPF

D. STP

Answer: A

Explanation:
First Hop Redundancy Protocol (FHRP) provides a failover mechanism for the default gateway, allowing a backup gateway to take over if the primary gateway fails. References: CompTIA Network+ Certification Study Guide, Chapter 4: Infrastructure.

NEW QUESTION 110
- (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 111
- (Exam Topic 2)
A network technician is observing the behavior of an unmanaged switch when a new device is added to the network and transmits data. Which of the following BEST describes how the switch processes this information?

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

Answer: C

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

NEW QUESTION 114
- (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:
https://www.comptia.org/blog/what-is-a-honeypot

NEW QUESTION 116
- (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 1 he technician can whitelist the new application in the IDS
B. The lab environment is located in the DM2, and traffic to the LAN zone is denied by defaul
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 120
- (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 125
- (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 lo 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 Ihey 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 building1. References:
https://www.cisco.com/c/en/us/support/docs/wireless-mobility/wireless-lan-wlan/82068-omni-vs-direct.html 1

NEW QUESTION 126
- (Exam Topic 2)
A user reports a weak signal when walking 20ft (61 m) away from the WAP in one direction, but a strong signal when walking 20ft in the opposite direction The technician has reviewed the configuration and confirmed the channel type is correct There is no jitter or latency on the connection Which of the following would be the MOST likely cause of the issue?

A. Antenna type
B. Power levels
C. Frequency
D. Encryption type

Answer: A

Explanation:
The antenna type affects the signal strength and coverage of a WAP. Different types of antennas have different radiation patterns and gain, which determine how far and wide the signal can reach. If the user experiences a weak signal in one direction but a strong signal in the opposite direction, it could mean that the antenna type is not suitable for the desired coverage area. The technician should consider changing the antenna type to one that has a more balanced or directional radiation pattern. References:
https://community.cisco.com/t5/wireless-small-business/wap200-poor-signal-strength/td-p/1565796

NEW QUESTION 129
- (Exam Topic 2)
Which of the following policies is MOST commonly used for guest captive portals?

A. AUP
B. DLP
C. BYOD
D. NDA

Answer: A

Explanation:
AUP stands for Acceptable Use Policy, which is a policy that defines the rules and guidelines for using a network or service. A guest captive portal is a web page that requires users to agree to the AUP before accessing the Internet or other network resources. This is a common way to enforce security and legal compliance for guest users. References:
https://www.arubanetworks.com/techdocs/Instant_87_WebHelp/Content/instant-ug/captive-portal/captive-portal

NEW QUESTION 130
- (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 135
- (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 140
- (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 arc 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 141
- (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 142
- (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 147
- (Exam Topic 2)
Given the following output:

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

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

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

Answer: A

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

NEW QUESTION 150
- (Exam Topic 2)
An organization with one core and five distribution switches is transitioning from a star to a full-mesh topology Which of the following is the number of additional network connections needed?

A. 5
B. 7
C. 10
D. 15

Answer: C

Explanation:
10 additional network connections are needed to transition from a star to a full-mesh topology. A star topology is a network topology where each device is connected to a central device, such as a switch or a hub. A full-mesh topology is a network topology where each device is directly connected to every other device. The number of connections needed for a full-mesh topology can be calculated by the formula n(n-1)/2, where n is the number of devices. In this case, there are six devices (one core and five distribution switches), so the number of connections needed for a full-mesh topology is 6(6-1)/2 = 15. Since there are already five connections in the star topology (one from each distribution switch to the core switch), the number of additional connections needed is 15 - 5 = 10. References: https://www.cisco.com/c/en/us/support/docs/ip/routing-information-protocol-rip/13788-3.html

NEW QUESTION 155
- (Exam Topic 2)
A network administrator wants to improve the security of the management console on the company's switches and ensure configuration changes made can be correlated to the administrator who conformed them Which of the following should the network administrator implement?

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

Answer: C

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

NEW QUESTION 159
- (Exam Topic 2)
A firewall administrator is implementing a rule that directs HTTP traffic to an internal server listening on a non-standard socket Which of the following types of rules is the administrator implementing?

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

Answer: B

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

NEW QUESTION 161
- (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 166
- (Exam Topic 2)
A network requirement calls for segmenting departments into different networks. The campus network is set up with users of each department in multiple buildings. Which of the following should be configured to keep the design simple and efficient?

A. MDIX
B. Jumbo frames
C. Port tagging
D. Flow control

Answer: C

Explanation:
Port tagging is a technique that involves adding a tag or identifier to the frames or packets that belong to a certain VLAN. A VLAN is a logical segment of a network that isolates traffic between different groups of devices. Port tagging allows devices on different physical ports or switches to communicate with each other as if they were on the same port or switch. Port tagging can help keep the design simple and efficient by reducing the number of physical ports and switches needed to segment departments into different networks. References: https://www.comptia.org/blog/what-is-port-tagging

NEW QUESTION 168
- (Exam Topic 2)
An IT technician suspects a break in one of the uplinks that provides connectivity to the core switch. Which of the following command-line tools should the technician use to determine where the incident is occurring?

A. nslookup
B. show config
C. netstat
D. show interface

E. show counters

Answer: D

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

NEW QUESTION 172
- (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 175
- (Exam Topic 2)
Which of the following technologies allows traffic to be sent through two different ISPs to increase performance?

A. Fault tolerance
B. Quality of service
C. Load balancing
D. Port aggregation

Answer: C

Explanation:
Load balancing is a technology that allows traffic to be sent through two different ISPs to increase performance. Load balancing is a process of distributing network traffic across multiple servers or links to optimize resource utilization, throughput, latency, and reliability. Load balancing can be implemented at different layers of the OSI model, such as layer 4 (transport) or layer 7 (application). Load balancing can also be used for outbound traffic by using multiple ISPs and routing protocols such as BGP (Border Gateway Protocol) to select the best path for each packet. References:
https://www.cisco.com/c/en/us/products/collateral/ios-nx-os-software/border-gateway-protocol-bgp/prod_white_

NEW QUESTION 176
- (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 178
- (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 180
- (Exam Topic 2)
Which of the following would be used to expedite MX record updates to authoritative NSs?

A. UDP forwarding
B. DNS caching
C. Recursive lookup
D. Time to live

Answer: D

Explanation:
Time to live (TTL) is a value that indicates how long a DNS record can be cached by authoritative NSs (name servers) or other DNS servers before it expires and needs to be updated. A lower TTL value would expedite MX record updates to authoritative NSs, as they would refresh the record more frequently. UDP forwarding is not a DNS term, but a technique of sending UDP packets from one host to another. DNS caching is the process of storing DNS records locally for faster resolution, which does not expedite MX record updates. Recursive lookup is a type of DNS query where a DNS server queries other DNS servers on behalf of a client until it finds the answer, which does not expedite MX record updates.

NEW QUESTION 182
- (Exam Topic 2)
A small, family-run business uses a single SOHO router to provide Internet and WiFi to its employees At the start of a new week, employees come in and find their usual WiFi network is no longer available, and there is a new wireless network to which they cannot connect. Given that information, which of the following should have been done to avoid this situation'

A. The device firmware should have been kept current.
B. Unsecure protocols should have been disabled.
C. Parental controls should have been enabled
D. The default credentials should have been changed

Answer: D

Explanation:
The default credentials are the username and password that come with a device or service when it is first installed or configured. They are often easy to guess or find online, which makes them vulnerable to unauthorized access or attacks. The default credentials should be changed to something unique and strong as soon as possible to avoid this situation. If the default credentials were not changed, someone could have accessed the SOHO router and changed the WiFi settings without the employees' knowledge. References: https://www.comptia.org/blog/network-security-basics-6-easy-ways-to-protect-your-network

NEW QUESTION 185
- (Exam Topic 3)
A network administrator views a network pcap and sees a packet containing the following:

```
community: public
request-id: 13438
get-response 1.3.6.1.2.1.1.3.0 Value:206801150
```

Which of the following are the BEST ways for the administrator to secure this type of traffic? (Select TWO).

A. Migrate the network to IPv6.
B. Implement 802.1 X authentication
C. Set a private community siring
D. Use SNMPv3.
E. Incorporate SSL encryption
F. Utilize IPSec tunneling.

Answer: CD

Explanation:
The packet shown in the image is an SNMP (Simple Network Management Protocol) packet, which is used to monitor and manage network devices. SNMP uses community strings to authenticate requests and responses between SNMP agents and managers. However, community strings are sent in clear text and can be easily intercepted by attackers. Therefore, one way to secure SNMP traffic is to set a private community string that is not the default or well-known value. Another way to secure SNMP traffic is to use SNMPv3, which is the latest version of the protocol that supports encryption and authentication of SNMP messages. References: CompTIA Network+ Certification Exam Objectives Version 7.0 (N10-007), Objective 2.5: Given a scenario, use remote access methods.

NEW QUESTION 189
- (Exam Topic 3)
A technician is investigating a misconfiguration on a Layer 3 switch. When the technician logs in and runs a command, the following data is shown:
Which of the following commands generated this output?

A. show route

B. show config
C. show interface
D. tcpdump
E. netstat —s

Answer: C

Explanation:
The output shown in the image is from the show interface command, which displays information about the status and configuration of a network interface on a switch or router. The output includes the interface name, description, MAC address, IP address, speed, duplex mode, status, and statistics. The show route command displays the routing table of the device. The show config command displays the current configuration of the device. The tcpdump command captures and analyzes network traffic. The netstat -s command displays statistics for each protocol.
References: CompTIA Network+ Certification Exam Objectives Version 7.0 (N10-007), Objective 2.4: Given a scenario, use appropriate software tools to troubleshoot connectivity issues.

NEW QUESTION 194
- (Exam Topic 3)
Which of the following is used to elect an STP root?

A. A bridge ID
B. A bridge protocol data unit
C. Interface port priority
D. A switch's root port

Answer: B

Explanation:
"Using special STP frames known as bridge protocol data units (BPDUs), switches communicate with other switches to prevent loops from happening in the first place. Configuration BPDUs establish the topology,
where one switch is elected root bridge and acts as the center of the STP universe. Each switch then uses the root bridge as a reference point to maintain a loop-free topology."

NEW QUESTION 199
- (Exam Topic 3)
Which of the following has the capability to centrally manage configuration, logging, and firmware versioning for distributed devices?

A. WLAN controller
B. Load balancer
C. SIEM solution
D. Syslog server

Answer: A

Explanation:
A WLAN controller is a device that manages and controls multiple wireless access points (WAPs) in a wireless LAN (WLAN). A WLAN controller has the capability to centrally manage configuration, logging, and firmware versioning for distributed WAPs. A WLAN controller can also provide load balancing, security, and quality of service (QoS) for the WLAN.
References: Network+ Study Guide Objective 3.1: Explain the purposes and use cases for advanced networking devices.

NEW QUESTION 204
- (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 Lammle (Chapter 6: Network Devices)

NEW QUESTION 206
- (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 flrewal Which of Vie 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 208
- (Exam Topic 3)
Network connectivity in an extensive forest reserve was achieved using fiber optics. A network fault was detected, and now the repair team needs to check the integrity of the fiber cable. Which of me following actions can reduce repair time?

A. Using a tone generator and wire map to determine the fault location
B. Using a multimeter to locate the fault point
C. Using an OTDR In one end of the optic cable to get the liber length information
D. Using a spectrum analyzer and comparing the current wavelength with a working baseline

Answer: C

NEW QUESTION 209
- (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 210
- (Exam Topic 3)
A technician is investigating an issue with connectivity at customer's location. The technician confirms that users can access resources locally but not over the internet The technician theorizes that the local router has failed and investigates further. The technician's testing results show that the route is functional: however, users still are unable to reach resources on the internal. Which of the following describes what the technician should do NEXT?

A. Document the lessons learned
B. Escalate the issue
C. identify the symptoms.
D. Question users for additional information

Answer: C

Explanation:
According to the CompTIA Network+ troubleshooting model123, this is the first step in troubleshooting a
network problem. The technician should gather information about the current state of the network, such as error messages, device status, network topology, and user feedback. This can help narrow down the scope of the problem and eliminate possible causes.

NEW QUESTION 215
- (Exam Topic 3)
A company has wireless APS that were deployed with 802.11g. A network engineer has noticed more frequent reports of wireless performance issues during the lunch hour in comparison to the rest of the day. The engineer thinks bandwidth consumption will increase while users are on their breaks, but network utilization logs do not show increased bandwidth numbers. Which Of the following would MOST likely resolve this issue?

A. Adding more wireless APS
B. Increasing power settings to expand coverage
C. Configuring the APS to be compatible with 802.1la
D. Changing the wireless channel used

Answer: C

Explanation:
* 802.11 g is an older wireless standard that operates in the 2.4 GHz frequency band and has a maximum data rate of 54 Mbps. 802.11a is a newer wireless standard that operates in the 5 GHz frequency band and has a maximum data rate of 54 Mbps. By configuring the APS to be compatible with 802.11a, the network engineer can reduce interference and congestion in the 2.4 GHz band and improve wireless performance.
References: Network+ Study Guide Objective 2.5: Implement network troubleshooting methodologies

NEW QUESTION 217

- (Exam Topic 3)
Which of the following provides guidance to an employee about restricting non-business access to the company's videoconferencing solution?

A. Acceptable use policy
B. Data loss prevention
C. Remote access policy
D. Standard operating procedure

Answer: A

Explanation:
An acceptable use policy (AUP) is a set of rules that outline the proper and improper use of an organization's resources, such as its videoconferencing solution. An AUP can provide guidance to employees about what is expected of them when using the organization's videoconferencing solution, including restricting non-business access to it.

NEW QUESTION 220
- (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 225
- (Exam Topic 3)
A security vendor needs to add a note to the DNS to validate the ownership of a company domain before services begin. Which of the following records did the security company MOST likely ask the company to configure?

A. TXT
B. AAAA
C. CNAME
D. SRV

Answer: A

Explanation:
TXT stands for Text and is a type of DNS record that can store arbitrary text data associated with a domain name. TXT records can be used for various purposes, such as verifying the ownership of a domain, providing information about a domain, or implementing security mechanisms such as SPF (Sender Policy Framework) or DKIM (DomainKeys Identified Mail). In this scenario, the security company most likely asked the company to configure a TXT record with a specific value that can prove the ownership of the domain. AAAA stands for IPv6 Address and is a type of DNS record that maps a domain name to an IPv6 address. CNAME stands for Canonical Name and is a type of DNS record that maps an alias name to another name. SRV stands for Service and is a type of DNS record that specifies the location of a service on a network.
References: CompTIA Network+ Certification Exam Objectives Version 7.0 (N10-007), Objective 1.8: Explain the purposes and use cases for advanced networking devices.

NEW QUESTION 229
- (Exam Topic 3)
Which of the following would be BEST to install to find and block any malicious users within a network?

A. IDS
B. IPS
C. SCADA
D. ICS

Answer: B

Explanation:
IPS takes action itself to block the attempted intrusion or otherwise remediate the incident. IDS is designed to only provide an alert about a potential incident, which enables a security operations center (SOC) analyst to investigate the event and determine whether it requires further action.

NEW QUESTION 231
- (Exam Topic 3)
A technician thinks one of the router ports is flapping. Which of the following available resources should the technician use in order to determine if the router is flapping?

A. Audit logs
B. NetFlow
C. Syslog

D. Traffic logs

Answer: C

Explanation:
Syslog is a protocol that allows network devices to send event messages to a centralized server or console for logging and analysis1. Syslog can help a technician to determine if a router port is flapping by providing timestamps, severity levels, and descriptions of the events that occur on the router, such as interface up or down, link state change, or error messages. Syslog can also help to identify the cause and frequency of the port flapping and troubleshoot the issue.
Audit logs are records of actions or events that occur on a system or network, such as user login, file access, configuration change, or policy violation. Audit logs can help to monitor and verify the activities and behaviors of users, devices, or applications on a system or network. Audit logs can also help to detect and investigate security incidents, compliance issues, or performance problems. However, audit logs do not provide detailed information about router port flapping.
NetFlow is a protocol that collects and analyzes network traffic data for monitoring and troubleshooting purposes2. NetFlow can help to identify the sources, destinations, volumes, and types of traffic on a network. NetFlow can also help to optimize network performance, security, and capacity planning. However, NetFlow does not provide detailed information about router port flapping.
Traffic logs are records of network traffic that pass through a device or application, such as a firewall, proxy, or web server. Traffic logs can help to monitor and filter the network traffic based on rules or policies. Traffic logs can also help to detect and prevent malicious traffic, such as malware, attacks, or unauthorized access. However, traffic logs do not provide detailed information about router port flapping.

NEW QUESTION 232
- (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 233
- (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 238
- (Exam Topic 3)
A network manager is configuring switches in IDFs to ensure unauthorized client computers are not connecting to a secure wired network. Which of the following is the network manager MOST likely performing?

A. Disabling unneeded switchports
B. Changing the default VLAN
C. Configuring DHCP snooping
D. Writing ACLs to prevent access to the switch

Answer: C

NEW QUESTION 241
- (Exam Topic 3)
A network technician is troubleshooting an area where the wireless connection to devices is poor. The technician theorizes that the signal-to-noise ratio in the area is causing the issue. Which of the following should the technician do NEXT?

A. Run diagnostics on the relevant devices.
B. Move the access point to a different location.
C. Escalate the issue to the vendor's support team.
D. Remove any electronics that might be causing interference.

Answer: D

NEW QUESTION 244
- (Exam Topic 3)
Due to a surge in business, a company is onboarding an unusually high number of salespeople. The salespeople are assigned desktops that are wired to the network. The last few salespeople to be onboarded are able to access corporate materials on the network but not sales-specific resources. Which of the following is MOST likely the cause?

A. The switch was configured with port security.

B. Newly added machines are running into DHCP conflicts.
C. The IPS was not configured to recognize the new users.
D. Recently added users were assigned to the wrong VLAN

Answer: D

NEW QUESTION 246
- (Exam Topic 3)
Which of the following is the MOST cost-effective alternative that provides proper cabling and supports gigabit Ethernet devices?

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

Answer: A

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

NEW QUESTION 249
- (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 254
- (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 258
- (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 263
- (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 tracerouute 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 268
- (Exam Topic 3)
Which of the following allows for an devices within a network to share a highly reliable time source?

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

Answer: A

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

NEW QUESTION 270
- (Exam Topic 3)
Due to concerns around single points of failure, a company decided to add an additional WAN to the network. The company added a second MPLS vendor to the current MPLS WAN and deployed an additional WAN router at each site. Both MPLS providers use OSPF on the WAN network, and EIGRP is run internally. The first site to go live with the new WAN is successful, but when the second site is activated significant network issues occur. Which of the following is the MOST likely cause for the WAN instability?

A. A routing loop
B. Asymmetrical routing
C. A switching loop
D. An incorrect IP address

Answer: B

Explanation:
Asymmetrical routing is the most likely cause for the WAN instability. When two different routing protocols are used, like OSPF and EIGRP, it can cause asymmetrical routing, which results in traffic being routed differently in each direction. This can lead to instability in the WAN. A CDP neighbor change, a switching loop, or an incorrect IP address are not likely causes for WAN instability.

NEW QUESTION 275
- (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 278
- (Exam Topic 3)
A network is secured and is only accessible via TLS and IPSec VPNs. Which of the following would need to be present to allow a user to access network resources on a laptop without logging in to the VPN application?

A. Site-to-site
B. Secure Shell
C. In-band management
D. Remote desktop connection

Answer: A

Explanation:
A site-to-site VPN is a type of VPN that connects two or more networks over the Internet using a secure
tunnel. A site-to-site VPN allows users to access network resources on a laptop without logging in to the VPN application, as long as the laptop is connected to one of the networks in the VPN. A site-to-site VPN is transparent to the users and does not require any additional software or configuration on the client devices.
References: Network+ Study Guide Objective 3.4: Explain the purposes and use cases for VPNs.

NEW QUESTION 282

- (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 284
- (Exam Topic 3)
Which of the following describes the ability of a corporate IT department to expand its cloud-hosted VM environment with minimal effort?

A. Scalability
B. Load balancing
C. Multitenancy
D. Geo-redundancy

Answer: A

Explanation:
Scalability is the ability of a corporate IT department to expand its cloud-hosted virtual machine (VM) environment with minimal effort. This allows IT departments to quickly and easily scale up their cloud environment to meet increased demand. Scalability also allows for the efficient use of resources, as IT departments can quickly and easily scale up or down as needed.

NEW QUESTION 287
- (Exam Topic 3)
Which of the following protocols can be routed?

A. FCoE
B. Fibre Channel
C. iSCSl
D. NetBEUI

Answer: C

Explanation:
iSCSI (Internet Small Computer System Interface) is a protocol that allows SCSI commands to be transported over IP networks1. iSCSI can be routed because it contains a network address and a device address, as required by a routable protocol2. iSCSI can be used to access block-level storage devices over a network, such as SAN (Storage Area Network).
FCoE (Fibre Channel over Ethernet) is a protocol that allows Fibre Channel frames to be encapsulated and transported over Ethernet networks1. FCoE cannot be routed because it does not contain a network address, only a device address. FCoE operates at the data link layer and requires special switches and adapters to support it. FCoE can also be used to access block-level storage devices over a network, such as SAN.
Fibre Channel is a protocol that provides high-speed and low-latency communication between servers and storage devices1. Fibre Channel cannot be routed because it does not use IP networks, but rather its own dedicated network infrastructure. Fibre Channel operates at the physical layer and the data link layer and requires special cables, switches, and adapters to support it. Fibre Channel can also be used to access block-level storage devices over a network, such as SAN.
NetBEUI (NetBIOS Extended User Interface) is an old protocol that provides session-level communication between devices on a local network1. NetBEUI cannot be routed because it does not contain a network address, only a device address. NetBEUI operates at the transport layer and relies on NetBIOS for name resolution. NetBEUI is obsolete and has been replaced by other protocols, such as TCP/IP.

NEW QUESTION 290
- (Exam Topic 3)
A technician discovered that some information on the local database server was changed during a tile 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 294
- (Exam Topic 3)
A network technician receives a report about a performance issue on a client PC that is connected to port 1/3 on a network switch. The technician observes the following configuration output from the switch:

1/1	Client PC	Connected	Full	1000
1/2	Client PC	Connected	Full	1000
1/3	Client PC	Connected	Full	10

Which of the following is a cause of the issue on port 1/3?

A. Speed
B. Duplex
C. Errors
D. VLAN

Answer: A

NEW QUESTION 299
- (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 304
- (Exam Topic 3)
A network engineer is investigating reports of poor performance on a videoconferencing application. Upon reviewing the report, the engineer finds that available bandwidth at the WAN connection is low.
Which Of the following is the MOST appropriate mechanism to handle this issue?

A. Traffic shaping
B. Flow control
C. NetFIow
D. Link aggregation

Answer: A

Explanation:
Traffic shaping is a congestion management method that regulates network data transfer by delaying the flow of less important or less desired packets1. Traffic shaping can help to improve the performance of a videoconferencing application by prioritizing its packets over other types of traffic and smoothing out traffic bursts. Traffic shaping can also help to avoid packet loss and ensure fair allocation of bandwidth among different applications or users.
Flow control is a mechanism that prevents a sender from overwhelming a receiver with more data than it can handle. Flow control can help to avoid buffer overflow and data loss, but it does not prioritize different types of traffic or smooth out traffic bursts. Flow control operates at the data link layer or the transport layer, while traffic shaping operates at the network layer or above.
NetFlow is a protocol that collects and analyzes network traffic data for monitoring and troubleshooting purposes2. NetFlow can help to identify the sources, destinations, volumes, and types of traffic on a network, but it does not regulate or shape the traffic flow. NetFlow operates at the network layer or above.
Link aggregation is a technique that combines multiple physical links into one logical link for increased bandwidth, redundancy, and load balancing. Link aggregation can help to improve the performance of a videoconferencing application by providing more available bandwidth at the WAN connection, but it does not prioritize different types of traffic or smooth out traffic bursts. Link aggregation operates at the data link layer.

NEW QUESTION 308
- (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 309
- (Exam Topic 3)
Which of the following bandwidth management techniques uses buffers al the client side to prevent TCP retransmissions from occurring when the ISP starts to drop packets of specific types that exceed the agreed traffic rate?

A. Traffic shaping
B. Traffic policing
C. Traffic marking
D. Traffic prioritization

Answer: D

NEW QUESTION 313
- (Exam Topic 3)
A technician is trying to determine whether an LACP bundle is fully operational. Which of the following commands will the technician MOST likely use?

A. show interface
B. show config
C. how route
D. show arp

Answer: A

Explanation:
https://www.cisco.com/c/en/us/td/docs/optical/cpt/r9_3/command/reference/cpt93_cr/cpt93_cr_chapter_01000.h

NEW QUESTION 316
- (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 321
- (Exam Topic 3)
A large metropolitan city is looking to standardize the ability tor 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 324
- (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 10OMB 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 326
- (Exam Topic 3)
Which of the following layers of the OSI model receives data from the application layer and converts it into syntax that is readable by other devices on the network?

A. Layer 1
B. Layer 3
C. Layer 6
D. Layer 7

Answer: C

NEW QUESTION 328
- (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 330
- (Exam Topic 3)
A network engineer needs to create a subnet that has the capacity for five VLANs. with the following number of clients lo be allowed on each:

VLAN 10	50 users
VLAN 20	35 users
VLAN 30	20 users
VLAN 40	75 users
VLAN 50	130 users

Which of the following is the SMALLEST subnet capable of this setup that also has the capacity to double the number of clients in the future?

A. 10.0.0.0/21
B. 10.0.0.0/22
C. 10.0.0.0/23
D. 10.0.0.0/24

Answer: B

NEW QUESTION 331
- (Exam Topic 3)
Which of the following can be used to decrease latency during periods of high utilization of a firewall?

A. Hot site
B. NIC teaming
C. HA pair
D. VRRP

Answer: B

Explanation:
NIC Teaming, also known as load balancing and failover (LBFO), allows multiple network adapters on a computer to be placed into a team for the following purposes: (https://www.bing.com/search?q=what+is+nic+teaming+used+for%3F&form=QBLH&sp=-1&pq=what+is+nic

NEW QUESTION 335
- (Exam Topic 3)
While waking from the parking lot lo an access-controlled door an employee sees an authorized user open the door. Then the employee notices that another person catches the door before It closes and goes inside Which of the following attacks Is taking place?

A. Tailgating
B. Pipgybacking
C. Shoulder surfing
D. Phisning

Answer: A

Explanation:
The difference between piggybacking and tailgaiting is that with piggybacking, the person is willfully and intentionally letting you in. In this particular case, the person caught the door before it closed, so it is tailgating.
Tailgating is a physical security attack that occurs when an unauthorized person follows an authorized person through a secured door or gate without their knowledge or consent. Tailgating can allow an attacker to bypass access control mechanisms and gain entry to restricted areas or resources. Tailgating can also pose a safety risk for the authorized person and other occupants of the facility.
Piggybacking is a physical security attack that occurs when an unauthorized person follows an authorized person through a secured door or gate with their knowledge or consent. Piggybacking can also allow an attacker to bypass access control mechanisms and gain entry to restricted areas or resources. Piggybacking can also violate security policies and compromise the accountability of the authorized person.
Shoulder surfing is a physical security attack that occurs when an unauthorized person observes or records an authorized person’s confidential information, such as passwords, PINs, or credit card numbers. Shoulder surfing can allow an attacker to steal credentials and access sensitive data or systems. Shoulder surfing can also violate privacy and confidentiality rights of the authorized person.
Phishing is a cyber security attack that occurs when an unauthorized person sends fraudulent emails or messages that appear to come from legitimate sources, such as banks, companies, or government agencies. Phishing can trick recipients into clicking on malicious links, opening malicious attachments, or providing personal or financial information. Phishing can allow an attacker to install malware, steal credentials, or perform identity theft. Phishing does not involve physical access to secured doors or gates.

NEW QUESTION 337
- (Exam Topic 3)
Which of the following is used when a workstation sends a DHCP broadcast to a server on another LAN?

A. Reservation
B. Dynamic assignment
C. Helper address
D. DHCP offer

Answer: C

Explanation:
A helper address is an IP address that is configured on a router interface to forward DHCP broadcast messages to a DHCP server on another LAN. A DHCP broadcast message is a message that a workstation sends when it needs to obtain an IP address from a DHCP server. Since broadcast messages are not routed across different networks, a helper address is needed to relay the DHCP broadcast message to the DHCP server on another network. References: https://www.comptia.org/training/books/network-n10-008-study-guide (page 199)

NEW QUESTION 340
- (Exam Topic 3)
A computer engineer needs to ensure that only a specific workstation can connect to port 1 on a switch. Which of the following features should the engineer configure on the switch interface?

A. Port tagging
B. Port security
C. Port mirroring
D. Port aggregation

Answer: B

Explanation:
Port security is a feature that can be configured on a switch interface to limit and identify the MAC addresses of workstations that are allowed to connect to that specific port. This can help ensure that only a specific workstation (or workstations) can connect to the interface. According to the CompTIA Network+ Study Manual, “Port security can be used to specify which MAC addresses are allowed to connect to a particular switch port. If a port security violation is detected, the switch can take a number of different actions, such as shutting down the port, sending an SNMP trap, or sending an email alert.”

NEW QUESTION 341
- (Exam Topic 3)
An ISP is unable to provide services to a user in a remote area through cable and DSL. Which of the following is the NEXT best solution to provide services without adding external infrastructure?

A. Fiber
B. Leased line
C. Satellite
D. Metro optical

Answer: C

Explanation:
If an ISP is unable to provide services to a user in a remote area through cable and DSL, the next best solution to provide services without adding external infrastructure would likely be satellite. Satellite is a wireless communication technology that uses a network of satellites orbiting the Earth to transmit and receive data. It is well-suited for providing connectivity to remote or rural areas where other types of infrastructure may not be available or may be cost-prohibitive to install.

NEW QUESTION 343
- (Exam Topic 3)
Which of the following BEST describes a spirt-tunnel client-to-server VPN connection?

A. The client sends an network traffic down the VPN tunnel
B. The client has two different IP addresses that can be connected to a remote site from two different ISPs to ensure availability
C. The client sends some network traffic down the VPN tunnel and other traffic to the local gateway.
D. The client connects to multiple remote sites at the same time

Answer: C

Explanation:
In a split-tunnel VPN, the client can access both the local network and the remote network simultaneously, with some network traffic sent through the VPN tunnel and other traffic sent to the local gateway. This approach allows for more efficient use of bandwidth and reduces the load on the VPN server. It also allows the client to continue accessing local resources while connected to the remote network.

NEW QUESTION 345
- (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 349
- (Exam Topic 3)
Due to space constraints in an IDF, a network administrator can only a do a single switch to accommodate three data networks. The administrator needs a configuration that will allow each device to access its expected network without additional connections. The configuration must also allow each device to access the rest of the network. Which of the following should the administrator do to meet these requirements? (Select TWO).

A. Untag the three VLANs across the uplink
B. Tag an individual VLAN across the uplink
C. Untag an individual VLAN per device port
D. Tag an individual VLAN per device port
E. Tag the three VLANs across the uplink.
F. Tag the three VLANs per device port.

Answer: AC

Explanation:
To achieve this, you should do two things:
- Tag the three VLANs across the uplink port that connects to another switch or router. This will allow data packets from different VLANs to cross over into other networks.
- Untag an individual VLAN per device port that connects to an end device. This will assign each device to its expected network without additional connections.

NEW QUESTION 354
- (Exam Topic 3)
A network administrator is troubleshooting a client's device that cannot connect to the network. A physical inspection of the switch shows the RJ45 is connected. The NIC shows no activity lights. The network administrator moves the device to another location and connects to the network without issues. Which Of the following tools would be the BEST option for the network administrator to use to further troubleshoot?

A. Tone generator
B. Multimeter
C. Optical time-domain reflectometer
D. Cable tester

Answer: D

Explanation:
A cable tester is a tool that can verify the integrity and functionality of a network cable. It can measure the electrical characteristics of the cable, such as resistance, capacitance, and impedance, and detect any faults or defects, such as shorts, opens, or crosstalk. A cable tester can help the network administrator troubleshoot the problem by determining if the cable is faulty or not. A tone generator is a tool that can send an audible signal through a cable to help locate and identify it. A multimeter is a tool that can measure voltage, current, and resistance of electrical circuits. An optical time-domain reflectometer (OTDR) is a tool that can test the quality and length of fiber optic cables.
References: CompTIA Network+ Certification Exam Objectives Version 7.0 (N10-007), Objective 2.3: Given a scenario, use the appropriate tool to support wired or wireless networks.

NEW QUESTION 357
- (Exam Topic 3)
A Wi-Fi network was recently deployed in a new, multilevel budding. Several issues are now being reported related to latency and drops in coverage. Which of the following is the FIRST step to troubleshoot the issues?

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

Answer: A

NEW QUESTION 362
- (Exam Topic 3)
A technician is contracted to install a redundant cluster of devices from the ISP In case of a hardware failure within the network. Which of the following would provide the BEST redundant solution in Layer 2 devices?

A. Multiple routers
B. Multiple switches
C. Multiple firewalls
D. Multiple budges

Answer: B

NEW QUESTION 363
- (Exam Topic 3)
A new office space is being designed. The network switches are up. but no services are running yet A network engineer plugs in a laptop configured as a DHCP client to a switch Which ol the following IP addresses should be assigned to the laptop?

A. 10.1.1.1
B. 169.254.1.128
C. 172 16 128 128
D. 192 168.0.1

Answer: B

Explanation:
When a DHCP client is connected to a network and no DHCP server is available, the client can automatically configure a link-local address in the 169.254.0.0/16 range using the Automatic Private IP Addressing (APIPA) feature. So, the correct answer is option B, 169.254.1.128. This is also known as an APIPA address.
Reference: CompTIA Network+ Study Guide, Exam N10-007, Fourth Edition, by Todd Lammle (Chapter 4: IP Addressing)

NEW QUESTION 366
- (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: A

NEW QUESTION 368
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