CompTIA

Exam Questions N10-009

CompTIA Network+ Exam

NEW QUESTION 1
- (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 2
- (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 3
- (Exam Topic 1)
Which of the following devices would be used to manage a corporate WLAN?

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

Answer: D

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

NEW QUESTION 4
- (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 5
- (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 6
- (Exam Topic 1)
An attacker is attempting to find the password to a network by inputting common words and phrases in plaintext to the password prompt. Which of the following attack types BEST describes this action?

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

Answer: D

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

NEW QUESTION 7
- (Exam Topic 1)
Which of the following DNS records works as an alias to another record?

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

Answer: B

Explanation:
The DNS record that works as an alias to another record is called CNAME (Canonical Name). CNAME records are used to create an alias for a domain name that points to another domain name.
References:
CompTIA Network+ Certification Study Guide, Exam N10-007, Fourth Edition, Chapter 2: The OSI Model and Networking Protocols, Objective 2.3: Given a scenario, implement and configure the
appropriate addressing schema.

NEW QUESTION 8
- (Exam Topic 1)
A workstation is configured with the following network details:

IP address	Subnet mask	Default gateway
10.1.2.23	10.1.2.0/27	10.1.2.1

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

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

Answer: D

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

NEW QUESTION 9
- (Exam Topic 1)
A network administrator is installing a wireless network at a client's office. Which of the following IEEE 802.11 standards would be BEST to use for multiple simultaneous client access?

A. CDMA
B. CSMA/CD
C. CSMA/CA
D. GSM

Answer: C

Explanation:
CSMA/CA (Carrier Sense Multiple Access with Collision Avoidance) is an IEEE 802.11 standard that would be best to use for multiple simultaneous client access on a wireless network. CSMA/CA is a media access control method that allows multiple devices to share the same wireless channel without causing collisions or interference. It works by having each device sense the channel before transmitting data and waiting for an acknowledgment from the receiver after each transmission. If the channel is busy or no acknowledgment is received, the device will back off and retry later with a random delay. References: https://www.cisco.com/c/en/us/support/docs/wireless-mobility/wireless-lan-wlan/82068-csma-ca.html

NEW QUESTION 10
- (Exam Topic 1)
A technician is connecting multiple switches to create a large network for a new office. The switches are unmanaged Layer 2 switches with multiple connections between each pair. The network is experiencing an extreme amount of latency. Which of the following is MOST likely occurring?

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

Answer: C

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

NEW QUESTION 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 13
- (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 14
- (Exam Topic 1)
A technician is troubleshooting a wireless connectivity issue in a small office located in a high-rise building. Several APs are mounted in this office. The users

report that the network connections frequently disconnect and reconnect throughout the day. Which of the following is the MOST likely cause of this issue?

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

Answer: C

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

NEW QUESTION 18
- (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 22
- (Exam Topic 1)
Given the following information:

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

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

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

Answer: D

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

NEW QUESTION 24
- (Exam Topic 1)
A store owner would like to have secure wireless access available for both business equipment and patron use. Which of the following features should be configured to allow different wireless access through the same equipment?

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

Answer: D

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

NEW QUESTION 26
- (Exam Topic 1)

A network administrator is configuring a load balancer for two systems. Which of the following must the administrator configure to ensure connectivity during a failover?

A. VIP
B. NAT
C. APIPA
D. IPv6 tunneling
E. Broadcast IP

Answer: A

Explanation:
A virtual IP (VIP) address must be configured to ensure connectivity during a failover. A VIP address is a single IP address that is assigned to a group of servers or network devices. When one device fails, traffic is automatically rerouted to the remaining devices, and the VIP address is reassigned to the backup device, allowing clients to continue to access the service without interruption.
References:
- CompTIA Network+ Certification Study Guide, Exam N10-007, Fourth Edition, Chapter 6: Network Servers, p. 300

NEW QUESTION 28
- (Exam Topic 1)
A user tries to ping 192.168.1.100 from the command prompt on the 192.168.2.101 network but gets the following response: U.U.U.U. Which of the following needs to be configured for these networks to reach each other?

A. Network address translation
B. Default gateway
C. Loopback
D. Routing protocol

Answer: B

Explanation:
A default gateway is a device that routes traffic from one network to another network, such as the Internet. A default gateway is usually configured on each host device to specify the IP address of the router that connects the host's network to other networks. In this case, the user's device and the destination device are on different networks (192.168.1.0/24 and 192.168.2.0/24), so the user needs to configure a default gateway on their device to reach the destination device.
References:
https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0), https://www.techopedia.com/definition/25761/default-gateway

NEW QUESTION 33
- (Exam Topic 1)
Which of the following is used to track and document various types of known vulnerabilities?

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

Answer: A

Explanation:
CVE stands for Common Vulnerabilities and Exposures, which is a list of publicly disclosed cybersecurity vulnerabilities that is free to search, use, and incorporate into products and services. CVE provides a standardized identifier and description for each vulnerability, as well as references to related sources of information. CVE helps to track and document various types of known vulnerabilities and facilitates communication and coordination among security professionals. References: https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0), https://cve.mitre.org/cve/

NEW QUESTION 35
- (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 network engineer is investigating reports of poor network performance. Upon reviewing a report, the engineer finds that jitter at the office is greater than 10ms on the only WAN connection available. Which of the following would be MOST affected by this statistic?

A. A VoIP sales call with a customer

B. An in-office video call with a coworker
C. Routing table from the ISP
D. Firewall CPU processing time

Answer: A

Explanation:
A VoIP sales call with a customer would be most affected by jitter greater than 10ms on the WAN connection. Jitter is the variation in delay of packets arriving at the destination. It can cause choppy or distorted audio quality for VoIP applications, especially over WAN links that have limited bandwidth and high latency. The recommended jitter for VoIP is less than 10ms. References: https://www.voip-info.org/voip-jitter/

NEW QUESTION 41
- (Exam Topic 1)
According to troubleshooting methodology, which of the following should the technician do NEXT after determining the most likely probable cause of an issue?

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

Answer: A

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

NEW QUESTION 44
- (Exam Topic 1)
A network engineer is investigating reports of poor network performance. Upon reviewing a device configuration, the engineer finds that duplex settings are mismatched on both ends. Which of the following would be the MOST likely result of this finding?

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

Answer: A

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

NEW QUESTION 49
- (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 52
- (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 55
- (Exam Topic 1)
A network administrator is designing a new datacenter in a different region that will need to communicate to the old datacenter with a secure connection. Which of the following access methods would provide the BEST security for this new datacenter?

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

Answer: D

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

NEW QUESTION 58
- (Exam Topic 1)
A network device is configured to send critical events to a syslog server; however, the following alerts are not being received:
Severity 5 LINK-UPDOWN: Interface 1/1, changed state to down Severity 5 LINK-UPDOWN: Interface 1/3, changed state to down
Which of the following describes the reason why the events are not being received?

A. The network device is not configured to log that level to the syslog server
B. The network device was down and could not send the event
C. The syslog server is not compatible with the network device
D. The syslog server did not have the correct MIB loaded to receive the message

Answer: A

Explanation:
The reason why the alerts are not being received is that the network device is not configured to log that level to the syslog server. The severity level for the events may need to be adjusted in order for them to be sent to the syslog server. References: Network+ Certification Study Guide, Chapter 8: Network Troubleshooting

NEW QUESTION 62
- (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 65
- (Exam Topic 1)
Which of the following is the physical topology for an Ethernet LAN?

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

Answer: D

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

NEW QUESTION 68
- (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 69
- (Exam Topic 1)
Which of the following factors should be considered when evaluating a firewall to protect a datacenter's east-west traffic?

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

Answer: B

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

NEW QUESTION 74
- (Exam Topic 1)
Client devices cannot enter a network, and the network administrator determines the DHCP scope is exhausted. The administrator wants to avoid creating a new DHCP pool. Which of the following can the administrator perform to resolve the issue?

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

Answer: D

Explanation:
To resolve the issue of DHCP scope exhaustion without creating a new DHCP pool, the administrator can reduce the lease time. By decreasing the lease time, the IP addresses assigned by DHCP will be released back to the DHCP scope more quickly, allowing them to be assigned to new devices.
References:
- CompTIA Network+ Certification Study Guide, Exam N10-007, Fourth Edition, Chapter 2: The OSI Model and Networking Protocols, Objective 2.3: Given a scenario, implement and configure the appropriate addressing schema.
- https://www.networkcomputing.com/data-centers/10-tips-optimizing-dhcp-performance

NEW QUESTION 75
- (Exam Topic 1)
Which of the following service models would MOST likely be used to replace on-premises servers with a cloud solution?

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

Answer: B

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

NEW QUESTION 78
- (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 82
- (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 87
- (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 90
- (Exam Topic 1)
A network engineer configured new firewalls with the correct configuration to be deployed to each remote branch. Unneeded services were disabled, and all firewall rules were applied successfully. Which of the following should the network engineer perform NEXT to ensure all the firewalls are hardened successfully?

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

Answer: C

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

NEW QUESTION 95
- (Exam Topic 2)
A network engineer is designing a new secure wireless network. The engineer has been given the following requirements:
* 1 Must not use plaintext passwords
* 2 Must be certificate based
* 3. Must be vendor neutral
Which of the following methods should the engineer select?

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

Answer: C

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

NEW QUESTION 99
- (Exam Topic 2)
Which of the following services can provide data storage, hardware options, and scalability to a third-party company that cannot afford new devices?

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

Answer: B

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

NEW QUESTION 102
- (Exam Topic 2)
A network technician is reviewing an upcoming project's requirements to implement IaaS. Which of the following should the technician consider?

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

Answer: D

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

NEW QUESTION 105
- (Exam Topic 2)
A network administrator is reviewing interface errors on a switch. Which of the following indicates that a switchport is receiving packets in excess of the configured MTU?

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

Answer: B

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

NEW QUESTION 110
- (Exam Topic 2)
A network administrator is downloading a large patch that will be uploaded to several enterprise switches simultaneously during the day's upgrade cycle. Which of the following should the administrator do to help ensure the upgrade process will be less likely to cause problems with the switches?

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

Answer: A

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

NEW QUESTION 115
- (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 116
- (Exam Topic 2)
An organization wants to implement a method of centrally managing logins to network services. Which of the following protocols should the organization use to allow for authentication, authorization and auditing?

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

Answer: B

Explanation:
RADIUS (Remote Authentication Dial-In User Service) is a protocol that should be used by the organization to allow for authentication, authorization, and auditing of network services. RADIUS is an AAA (Authentication, Authorization, and Accounting) protocol that manages network access by verifying user credentials, granting access permissions, and logging user activities. RADIUS uses a client-server model where a RADIUS client (such as a router, switch, or VPN server) sends user information to a RADIUS server (such as an authentication server) for verification and authorization. The RADIUS server can also send accounting information to another server for billing or reporting purposes. References:
https://www.cisco.com/c/en/us/support/docs/security-vpn/remote-authentication-dial-user-service-radius/13838

NEW QUESTION 118
- (Exam Topic 2)
A technician is implementing a new wireless network to serve guests at a local office. The network needs to provide Internet access but disallow associated stations from communicating with each other. Which of the following would BEST accomplish this requirement?

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

Answer: A

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

NEW QUESTION 121
- (Exam Topic 2)
A network technician is investigating an IP phone that does not register in the VoIP system Although it received an IP address, it did not receive the necessary DHCP options The information that is needed for the registration is distributes by the OHCP scope All other IP phones are working properly. Which of the following does the technician need to verify?

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

Answer: A

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

NEW QUESTION 123
- (Exam Topic 2)

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

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

Answer: C

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

NEW QUESTION 125
- (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 127
- (Exam Topic 2)
A Chief Information Officer (CIO) wants to improve the availability of a company's SQL database Which of the following technologies should be utilized to achieve maximum availability?

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

Answer: A

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

NEW QUESTION 130
- (Exam Topic 2)
Which of the following protocols will a security appliance that is correlating network events from multiple devices MOST likely rely on to receive event messages?

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

Answer: A

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

NEW QUESTION 134
- (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 137
- (Exam Topic 2)
A network field technician is installing and configuring a secure wireless network. The technician performs a site survey. Which of the following documents would MOST likely be created as a result of the site survey?

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

Answer: B

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

NEW QUESTION 140
- (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 143
- (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 145
- (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 148
- (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 150
- (Exam Topic 2)
During the security audit of a financial firm the Chief Executive Officer (CEO) questions why there are three employees who perform very distinct functions on the server. There is an administrator for creating users another for assigning the users lo groups and a third who is the only administrator to perform file rights assignment Which of the following mitigation techniques is being applied'

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

Answer: B

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

NEW QUESTION 151
- (Exam Topic 2)
A user recently made changes to a PC that caused it to be unable to access websites by both FQDN and IP Local resources, such as the file server remain accessible. Which of the following settings did the user MOST likely misconfigure?

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

Answer: B

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

NEW QUESTION 155
- (Exam Topic 2)
A city has hired a new employee who needs to be able to work when traveling at home and at the municipal sourcing of a neighboring city that snares services. The employee is issued a laptop, and a technician needs to train the employee on the appropriate solutions for secure access to the network from all the possible locations On which of the following solutions would the technician MOST likely train the employee?

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

Answer: A

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

NEW QUESTION 159
- (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 164
- (Exam Topic 2)
A company wants to implement a large number of WAPs throughout its building and allow users to be able to move around the building without dropping their connections Which of the following pieces of equipment would be able to handle this requirement?

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

Answer: C

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

NEW QUESTION 167
- (Exam Topic 2)
A network administrator is setting up several loT devices on a new VLAN and wants to accomplish the following
* 1. Reduce manual configuration on each system
* 2. Assign a specific IP address to each system
* 3. Allow devices to move to different switchports on the same VLAN
Which of the following should the network administrator do to accomplish these requirements?

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

Answer: A

Explanation:
A reservation is a feature of DHCP that assigns a specific IP address to a device based on its MAC address. This way, the device will always receive the same IP address from the DHCP server, regardless of its location or connection time. A network administrator can set up a reservation for each loT device to accomplish the requirements of reducing manual configuration, assigning a specific IP address, and allowing devices to move to different switchports on the same VLAN. References: https://www.comptia.org/blog/what-is-dhcp

NEW QUESTION 172
- (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 174
- (Exam Topic 3)
A network technician needs to ensure the company's external mail server can pass reverse lookup checks. Which of the following records would the technician MOST likely configure? (Choose Correct option and give explanation directly from CompTIA Network+ Study guide or documents)

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

Answer: A

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

NEW QUESTION 179
- (Exam Topic 3)
A company is reviewing ways to cut the overall cost of Its IT budget. A network technician suggests removing various computer programs from the IT budget and only providing these programs on an as-needed basis. Which of the following models would meet this requirement?

A. Multitinency
B. laaS
C. SaaS
D. VPN

Answer: C

Explanation:
SaaS stands for Software as a Service and is a cloud computing model where software applications are hosted and delivered over the internet by a service provider. SaaS can help the company cut the overall cost of its IT budget by eliminating the need to purchase, install, update, and maintain various computer programs on its own devices. The company can access the programs on an as-needed basis and pay only for what it uses. Multitenancy is a feature of cloud computing where multiple customers share the same physical or virtual resources. IaaS stands for Infrastructure as a Service and is a cloud computing model where computing resources such as servers, storage, and networking are provided over the internet by a service provider. VPN stands for Virtual Private Network and is a technology that creates a secure and encrypted connection over a public network.
References: CompTIA Network+ Certification Exam Objectives Version 7.0 (N10-007), Objective 1.9: Compare and contrast common network service types.

NEW QUESTION 183
- (Exam Topic 3)
Which of the following devices have the capability to allow communication between two different subnetworks? (Select TWO).

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

Answer: DE

NEW QUESTION 188
- (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 192
- (Exam Topic 3)
A network device needs to discover a server that can provide it with an IPv4 address. Which of the following does the device need to send the request to?

A. Default gateway
B. Broadcast address
C. Unicast address
D. Link local address

Answer: B

Explanation:
The DHCP client sends broadcast request packets to the network; the DHCP servers respond with broadcast packets that offer IP parameters, such as an IP address for the client. After the client chooses the IP parameters, communication between the client and server is by unicast packets.
"When a DHCP client boots up, it automatically sends out a DHCP Discover UDP datagram to the broadcast address, 255.255.255.255. This DHCP Discover message asks “Are there any DHCP servers out there?” The client can’t send unicast traffic yet, as it doesn’t have a valid IP address that can be used."

NEW QUESTION 197
- (Exam Topic 3)
A technician manages a DHCP scope but needs to allocate a portion of the scope’s subnet for statically assigned devices. Which of the following DHCP concepts would be BEST to use to prevent IP address conflicts?

A. Dynamic assignment
B. Exclusion range
C. Address reservation
D. IP helper

Answer: B

Explanation:
To prevent IP address conflicts when allocating a portion of a DHCP scope's subnet for statically assigned devices, it is recommended to use the concept of DHCP exclusion ranges. DHCP exclusion ranges allow a DHCP administrator to specify a range of IP addresses within the scope that should not be assigned to DHCP clients. This can be useful in situations where some devices on the network need to be assigned static IP addresses, as it ensures that the statically assigned addresses do not overlap with addresses assigned by the DHCP server. To set up a DHCP exclusion range, the administrator needs to specify the start and end IP addresses of the range, as well as the subnet mask. The DHCP server will then exclude the specified range of addresses from its pool of available addresses, and will not assign them to DHCP clients. By using DHCP exclusion ranges, the technician can ensure that the statically assigned addresses do not conflict with addresses assigned by the DHCP server, and can prevent IP address conflicts on the network.
Anthony Sequeira
"Another frequent configuration you might make in a DHCP implementation is to configure an exclusion range. This is a portion of the address pool that you never want leased out to clients in the network. Perhaps you have numbered your servers 192.168.1.1–192.168.1.10. Because the servers are statically configured with these addresses, you exclude these addresses from the 192.168.1.0/24 pool of addresses."
Mike Meyers
"Exclusion ranges represent an IP address or range of IP addresses from the pool of addresses that are not to be given out by the DHCP server. Exclusions should be made for the static addresses manually configured on servers and router interfaces, so these IP addresses won’t be offered to DHCP clients."

NEW QUESTION 200
- (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 205
- (Exam Topic 3)
During a recent security audit, a contracted penetration tester discovered the organization uses a number of insecure protocols. Which of the following ports should be disallowed so only encrypted protocols are allowed? (Select TWO).

A. 22
B. 23
C. 69
D. 443
E. 587

F. 8080

Answer: BC

NEW QUESTION 208
- (Exam Topic 3)
A network administrator notices excessive wireless traffic occurring on an access point after normal business hours. The access point is located on an exterior wall. Which of the following should the administrator do to limit wireless access outside the building?

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

Answer: C

Explanation:
A directional antenna is a type of antenna that radiates or receives radio waves in a specific direction. This can help limit wireless access outside the building by focusing the signal towards the intended area and reducing the signal strength in other directions. A private VLAN is a feature that isolates network devices within a VLAN. Disabling roaming on the WAP prevents wireless clients from switching to another WAP when the signal is weak. Stopping broadcasting of the SSID hides the network name from wireless clients, but does not prevent them from connecting if they know the SSID.
References: CompTIA Network+ Certification Exam Objectives Version 7.0 (N10-007), Objective 3.1: Given a scenario, install and configure wireless LAN infrastructure and implement the appropriate technologies in support of wireless capable devices.

NEW QUESTION 211
- (Exam Topic 3)
A network technician needs to ensure that all files on a company's network can be moved in a safe and protected manner without interception from someone who is not the intended recipient. Which of the following would allow the network technician to meet these requirements?

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

Answer: D

NEW QUESTION 214
- (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 218
- (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 220
- (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 221
- (Exam Topic 3)
A large number of PCs are obtaining an APIPA IP address, and a number of new computers were added to the network. Which of the following is MOST likely causing the PCs to obtain an APIPA address?

A. Rogue DHCP server
B. Network collision
C. Incorrect DNS settings
D. DHCP scope exhaustion

Answer: D

Explanation:
DHCP scope exhaustion means that there are no more available IP addresses in the DHCP server's pool of addresses to assign to new devices on the network. When this happens, the devices will use APIPA (Automatic Private IP Addressing) to self-configure an IP address in the range of 169.254.0.1 to 169.254.255.2541. These addresses are not routable and can only communicate with other devices on the same local network.
A rogue DHCP server (A) is an unauthorized DHCP server that can cause IP address conflicts or security issues by assigning IP addresses to devices on the network. A network collision (B) is a situation where two or more devices try to send data on the same network segment at the same time, causing interference and data loss. Incorrect DNS settings © can prevent devices from resolving domain names to IP addresses, but they do not affect the DHCP process.

NEW QUESTION 225
- (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 226
- (Exam Topic 3)
Several end users viewing a training video report seeing pixelated images while watching. A network administrator reviews the core switch and is unable to find an immediate cause. Which of the following BEST explains what is occurring?

A. Jitter
B. Bandwidth
C. Latency
D. Giants

Answer: A

Explanation:
"Jitter is the loss of packets due to an overworked WAP. Jitter shows up as choppy conversations over a video call, strange jumps in the middle of an online game—pretty much anything that feels like the network has missed some data. Latency is when data stops moving for a moment due to a WAP being unable to do the work. This manifests as a Word document that stops loading, for example, or an online file that stops downloading."

NEW QUESTION 228
- (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 229

- (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 232
- (Exam Topic 3)
Which of the following can be used to limit the ability of devices to perform only HTTPS connections to an internet update server without exposing the devices to the public internet?

A. Allow connections only to an internal proxy server.
B. Deploy an IDS system and place it in line with the traffic.
C. Create a screened network and move the devices to it.
D. Use a host-based network firewall on each device.

Answer: A

Explanation:
An internal proxy server is a server that acts as an intermediary between internal devices and external servers on the internet. An internal proxy server can be used to limit the ability of devices to perform only HTTPS connections to an internet update server by filtering and forwarding the requests and responses based on predefined rules or policies. An internal proxy server can also prevent the devices from being exposed to the public internet by hiding their IP addresses and providing a layer of security and privacy.

NEW QUESTION 235
- (Exam Topic 3)
A user from a remote office is reporting slow file transfers. Which of the following tools will an engineer MOST likely use to get detailed measurement data?

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

Answer: B

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

NEW QUESTION 239
- (Exam Topic 3)
During a risk assessment which of the following should be considered when planning to mitigate high CPU utilization of a firewall?

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

Answer: D

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

NEW QUESTION 244
- (Exam Topic 3)
A technician wants to monitor and provide traffic segmentation across the network. The technician would like to assign each department a specific identifier. Which of the following will the technician MOST likely use?

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

Answer: C

Explanation:
To monitor and provide traffic segmentation across the network, a technician may use the concept of VLANs (Virtual Local Area Networks). VLANs are a way of dividing a single physical network into multiple logical networks, each with its own unique identifier or "tag."
By assigning each department a specific VLAN identifier, the technician can segment the network traffic and ensure that the different departments' traffic is kept separate from one another. This can help to improve network security, performance, and scalability, as well as allowing for better monitoring and control of the

network traffic.
To implement VLANs, the technician will need to configure VLAN tagging on the network devices, such as switches and routers, and assign each department's devices to the appropriate VLAN. The technician may also need to configure VLAN trunking to allow the different VLANs to communicate with each other.
By using VLANs, the technician can effectively monitor and segment the network traffic, providing better control and visibility into the network.

NEW QUESTION 248
- (Exam Topic 3)
Many IP security cameras use RTSP to control media playback. Which of the following default transport layer port numbers does RTSP use?

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

Answer: B

Explanation:
RTSP stands for Real Time Streaming Protocol and is an application-level network protocol designed for controlling media playback on streaming media servers. RTSP uses the default transport layer port number 554 for both TCP and UDP1. Port 445 is used for SMB (Server Message Block), a protocol for file and printer sharing. Port 587 is used for SMTP (Simple Mail Transfer Protocol), a protocol for sending email messages. Port 5060 is used for SIP (Session Initiation Protocol), a protocol for initiating and managing multimedia sessions.
References: 1 Real Time Streaming Protocol - Wikipedia (https://en.wikipedia.org/wiki/Real_Time_Streaming_Protocol)

NEW QUESTION 251
- (Exam Topic 3)
A user reports that a new VoIP phone works properly but the computer that is connected to the phone cannot access any network resources. Which of the following MOST Likely needs to be configured correctly to provide network connectivity to the computer?

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

Answer: D

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

NEW QUESTION 252
- (Exam Topic 3)
A network administrator would like to purchase a device that provides access ports to endpoints and has the ability to route between networks. Which of the following would be BEST for the administrator to purchase?

A. An IPS
B. A Layer 3 switch
C. A router
D. A wireless LAN controller

Answer: B

NEW QUESTION 255
- (Exam Topic 3)
An administrator would like to create a fault-tolerant ring between three switches within a Layer 2 network. Which of the following Ethernet features should the administrator employ?

A. Spanning Tree Protocol
B. Open Shortest Path First
C. Port mirroring
D. An interior gateway protocol

Answer: A

Explanation:
Spanning Tree Protocol (STP) is a network protocol that ensures a loop-free topology in Ethernet networks by actively blocking certain links and enabling others. STP prevents loops by putting some of the links in a blocking state, effectively creating a loop-free topology. This ensures that there is only one active path between two devices, which helps prevent network loops and the associated problems (such as broadcast storms) that can result from them. STP is used to create a fault-tolerant ring between three switches within a Layer 2 network.

NEW QUESTION 256
- (Exam Topic 3)
An administrator is setting up a multicast server on a network, but the firewall seems to be dropping the traffic. After logging in to the device, me administrator sees me following entries:

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

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

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

Answer: A

NEW QUESTION 257
- (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 258
- (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 260
- (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 264
- (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 269
- (Exam Topic 3)
An IT technician needs to increase bandwidth to a server. The server has multiple gigabit ports. Which of the following can be used to accomplish this without replacing hardware?

A. STP
B. 802. IQ
C. Duplex
D. LACP

Answer: D

Explanation:
LACP stands for Link Aggregation Control Protocol and is a protocol that allows multiple physical ports to be combined into a single logical port. This can increase bandwidth, redundancy, and load balancing for a server. LACP is part of the IEEE 802.3ad standard for link aggregation. STP stands for Spanning Tree Protocol and is a protocol that prevents loops in a network by blocking redundant links. 802.1Q is a standard for VLAN (Virtual Local Area Network) tagging, which allows multiple logical networks to share the same physical infrastructure. Duplex is a mode of communication that determines how data is transmitted and received on a link. Full duplex allows simultaneous transmission and reception, while half duplex allows only one direction at a time.
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 271
- (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 276
- (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 279
- (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 280

- (Exam Topic 3)
A company wants to add a local redundant data center to its network in case of failure at its primary location. Which of the following would give the LEAST amount of redundancy for the company's network?

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

Answer: A

NEW QUESTION 285
- (Exam Topic 3)
A network technician is selecting a replacement for a damaged fiber cable that goes directly to an SFP transceiver on a network switch. Which of the following cable connectors should be used?

A. RJ45
B. LC
C. MT
D. F-type

Answer: C

NEW QUESTION 290
- (Exam Topic 3)
An IT technician successfully connects to the corporate wireless network at a hank. While performing some tests, the technician observes that the physical address of the DHCp server has changed even though the network connection has not been lost. Which of the following would BEST explain this change?

A. Server upgrade
B. Duplicate IP address
C. Scope exhaustion
D. Rogue server

Answer: D

Explanation:
A rogue server is a DHCP server on a network that is not under the administrative control of the network staff 1. It may provide incorrect IP addresses or other network configuration information to devices on the network, causing them to lose connectivity or be vulnerable to attacks2. The physical address of the DHCP server may change if a rogue server takes over the role of assigning IP addresses to devices on the network. This can be detected by monitoring DHCP traffic or using tools such as RogueChecker2.

NEW QUESTION 292
- (Exam Topic 3)
Which of the following is an advanced distance vector routing protocol that automates routing tables and also uses some features of link-state routing protocols?

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

Answer: C

Explanation:
EIGRP is an advanced distance vector routing protocol that is able to automatically update routing tables and also uses features of link-state routing protocols, such as the ability to send updates about the current topology of the network. EIGRP also has the ability to use a variety of algorithms to determine the best route for a packet to take, allowing for more efficient routing across the network.

NEW QUESTION 294
- (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 297

- (Exam Topic 3)
The Chief Executive Officer of a company wants to ensure business operations are not disrupted in the event of a disaster. The solution must have fully redundant equipment, real-time synchronization, and zero data loss. Which Of the following should be prepared?

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

Answer: C

Explanation:
A hot site is a backup site that is fully equipped and ready to take over the operations of the primary site in the event of a disaster. A hot site has real-time synchronization with the primary site and can provide zero data loss. A hot site is the most expensive and reliable option for disaster recovery.
References: Network+ Study Guide Objective 5.3: Explain common scanning, monitoring and patching processes and summarize their expected outputs.

NEW QUESTION 299
- (Exam Topic 3)
A network technician is working at a new office location and needs to connect one laptop to another to transfer files. The laptops are newer models and do not have Ethernet ports. Access points are not available either. Which Of the following types Of wireless network SSIDs does the network technician need to configure to be able to connect the laptops together?

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

Answer: A

Explanation:
An Independent Basic Service Set (IBSS) is a type of wireless network that does not require an access point or a wired network. An IBSS allows wireless devices to communicate directly with each other using ad hoc mode. An IBSS is also known as an ad hoc network or a peer-to-peer network. A network technician can configure an IBSS to connect two laptops together and transfer files.
References: Network+ Study Guide Objective 1.4: Explain the properties and characteristics of TCP/IP

NEW QUESTION 303
- (Exam Topic 3)
A network technician is having issues connecting an loT sensor to the internet The WLAN settings were enabled via a custom command line, and a proper IP address assignment was received on the wireless interlace. However, when trying to connect to the internet, only HTTP redirections are being received when data Is requested. Which of the following will point to the root cause of the Issue?

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

Answer: C

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

NEW QUESTION 305
- (Exam Topic 3)
An administrator would like to allow Windows clients from outside me office to access workstations without using third-party software. Which or the following access methods would meet this requirement?

A. Remote desktop gateway
B. Spit tunnel
C. Site-to-site VPN
D. VNC

Answer: A

Explanation:
To allow Windows clients from outside the office to access workstations without using third-party software, the administrator can use the Remote Desktop Protocol (RDP). RDP is a built-in feature of the Windows operating system that allows users to remotely connect to and control other Windows computers over a network connection.
To use RDP, the administrator will need to enable the Remote Desktop feature on the workstations that need to be accessed, and ensure that the appropriate firewall rules are in place to allow RDP traffic to pass through. The administrator will also need to provide the remote users with the necessary credentials to access the workstations.
Once RDP is set up and configured, the remote users can use the Remote Desktop client on their own computers to connect to the workstations and access them as if they were physically present in the office. This allows the administrator to provide remote access to the workstations without the need for any additional software or third-party tools.

NEW QUESTION 307
- (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 308
- (Exam Topic 3)
A network administrator is trying to add network redundancy for the server farm. Which of the following can the network administrator configure to BEST provide this capability?

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

Answer: A

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

NEW QUESTION 313
- (Exam Topic 3)
An employee working in a warehouse facility is experiencing interruptions in mobile applications while walking around the facility. According to a recent site survey, the WLAN comprises autonomous APs that are directly connected to the internet, providing adequate signal coverage. Which of the following is the BEST solution to improve network stability?

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

Answer: A

Explanation:
Client roaming refers to the ability of a wireless device to seamlessly connect to a different access point (AP) as the user moves around the facility. This can help to improve network stability and reduce interruptions in mobile applications. An extended service deployment is a type of wireless network configuration that uses multiple APs to cover a large area, such as a warehouse facility. By using a wireless controller to manage the APs, the network can be better optimized for client roaming, which can improve network stability.
"Roaming With multiple WAPs in an ESS, clients will connect to whichever WAP has the strongest signal. As clients move through the space covered by the broadcast area, they will change WAP connections seamlessly, a process called roaming."

NEW QUESTION 318
- (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 323
- (Exam Topic 3)
An engineer needs to restrict the database servers that are in the same subnet from communicating with each other. The database servers will still need to communicate with the application servers in a different subnet. In some cases, the database servers will be clustered, and the servers will need to communicate with other cluster members. Which of the following technologies will be BEST to use to implement this filtering without creating rules?

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

Answer: A

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

NEW QUESTION 328
- (Exam Topic 3)
Which of the following is most likely to have the HIGHEST latency while being the most accessible?

A. Satellite
B. DSL
C. Cable
D. 4G

Answer: A

NEW QUESTION 333
- (Exam Topic 3)
A building was recently remodeled in order to expand the front lobby. Some mobile users have been unable to connect to the available network jacks within the new lobby, while others have had no issues. Which of the following is the MOST likely cause of the connectivity issues?

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

Answer: B

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

NEW QUESTION 335
- (Exam Topic 3)
An AP uses a 98ft (30m) Cat 6 cable to connect to an access switch. The cable is wired through a duct close to a three-phase motor installation. Anytime the three-phase is turned on, all users connected to the switch experience high latency on the network. Which Of the following is MOST likely the cause Of the issue?

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

Answer: A

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

NEW QUESTION 338
- (Exam Topic 3)
A network administrator is implementing process changes based on recommendations following a recent penetration test. The testers used a method to gain access to the network that involved exploiting a publicly available and fixed remote code execution vulnerability in the VPN appliance. Which of the following should the administrator do to BEST prevent this from happening again?

A. Change default passwords on internet-facing hardware.
B. Implement robust ACLs with explicit deny-all entries.
C. Create private VLANs for management plane traffic.
D. Routinely upgrade all network equipment firmware.

Answer: D

Explanation:
Firmware is the software that runs on network equipment such as routers, switches, and VPN appliances. Firmware updates often contain bug fixes, security patches, and performance improvements that can prevent or mitigate vulnerabilities and attacks. By routinely upgrading all network equipment firmware, a network administrator can ensure that the network devices are running the latest and most secure versions of firmware and avoid exploiting known and fixed remote code execution vulnerabilities in the VPN appliance. References: https://www.comptia.org/training/books/network-n10-008-study-guide (page 462)

NEW QUESTION 341
- (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 345
- (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 349
- (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 354
- (Exam Topic 3)
A desktop support department has observed slow wireless speeds for a new line of laptops using the organization's standard image. No other devices have experienced the same issue. Which of the following should the network administrator recommend troubleshooting FIRST to resolve this issue?

A. Increasing wireless signal power
B. Installing a new WAP
C. Changing the protocol associated to the SSID
D. Updating the device wireless drivers

Answer: D

Explanation:
Wireless drivers can affect the performance and compatibility of your wireless connection5. If only a new line of laptops using the organization’s standard image has experienced slow wireless speeds, it could be that their wireless drivers are outdated or incompatible with the network. Updating the device wireless drivers

could resolve this issue.
Wireless drivers play an important role in the performance of a wireless connection, as they control how the device interacts with the wireless network. If the laptops in question are using an outdated version of the wireless driver, it could be causing the slow speeds. The network administrator should recommend updating the device wireless drivers first to see if this resolves the issue.

NEW QUESTION 359
- (Exam Topic 3)
A network administrator is setting up a new phone system and needs to define the location where VoIP phones can download configuration files. Which of the following DHCP services can be used to accomplish this task?

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

Answer: A

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

NEW QUESTION 364
- (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 369
- (Exam Topic 3)
A network technician is planning a network scope. The web server needs to be within 12.31 69.1 to 12.31.69.29. Which of the following would meet this requirement?

A. Lease time
B. Range reservation
C. DNS
D. Superscope

Answer: A

NEW QUESTION 374
- (Exam Topic 3)
Which of the following is the NEXT step to perform network troubleshooting after identifying an issue?

A. Implement a solution.
B. Establish a theory.
C. Escalate the issue.
D. Document the findings.

Answer: B

Explanation:
1 Identify the Problem. 2 Develop a Theory.
3 Test the Theory. 4 Plan of Action.
5 Implement the Solution.
6 Verify System Functionality. 7 Document the Issue.

NEW QUESTION 379
- (Exam Topic 3)
Which of the following should be used to manage outside cables that need to be routed to various multimode uplinks?

A. Fiber distribution panel
B. 110 punchdown block
C. PDU
D. TIA/EIA-568A patch bay
E. Cat 6 patch panel

Answer: A

Explanation:
A fiber distribution panel is a device that provides a central location for connecting and managing fiber optic cables and optical modules. It can support various types and speeds of fiber optic links, including multimode uplinks. Therefore, a fiber distribution panel should be used to manage outside cables that need to be routed to various multimode uplinks.

NEW QUESTION 384
- (Exam Topic 3)
Which of the following would be used to forward requests and replies between a DHCP server and client?

A. Relay
B. Lease
C. Scope
D. Range

Answer: A

NEW QUESTION 387
- (Exam Topic 3)
A company, which is located in a coastal town, retrofitted an office building for a new data center. The underground fiber optics were brought in and connected to the switches in the basement network MDF. A server data center was built on the fifth floor with the two rooms vertically connected by fiber optics. Which of the following types of environmental sensors is MOST needed?

A. Temperature sensor in the network MDF
B. Water sensor in the network MDF
C. Temperature sensor in the data center
D. Water sensor in the data center

Answer: B

Explanation:
A water sensor is a type of environmental sensor that detects the presence of water or moisture in an area. A water sensor is most needed in a network main distribution frame (MDF) that is located in a basement near underground fiber-optic cables. A network MDF is a central point where all the network connections converge and where network equipment such as switches and routers are located. If water leaks into the basement and damages the fiber-optic cables or the network equipment, it can cause network outages, performance degradation, or data loss. A water sensor can alert the network administrator of any water intrusion and help prevent or minimize the damage. References:
https://www.comptia.org/training/books/network-n10-008-study-guide (page 446)

NEW QUESTION 391
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