

CompTIA

Exam Questions N10-008

CompTIA Network+Exam



NEW QUESTION 1

- (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

NEW QUESTION 2

- (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

NEW QUESTION 3

- (Exam Topic 1)

Which of the following is the LARGEST MTU for a standard Ethernet frame?

- A. 1452
- B. 1492
- C. 1500
- D. 2304

Answer: C

NEW QUESTION 4

- (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: A

NEW QUESTION 5

- (Exam Topic 1)

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

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

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

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

Answer: A

NEW QUESTION 6

- (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

NEW QUESTION 7

- (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

NEW QUESTION 8

- (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

NEW QUESTION 9

- (Exam Topic 1)

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

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

Answer: A

NEW QUESTION 10

- (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

NEW QUESTION 10

- (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

NEW QUESTION 11

- (Exam Topic 1)

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

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

Answer: B

NEW QUESTION 12

- (Exam Topic 1)

Which of the following would MOST likely be used to review previous upgrades to a system?

- A. Business continuity plan
- B. Change management
- C. System life cycle

D. Standard operating procedures

Answer: B

NEW QUESTION 14

- (Exam Topic 1)

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

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

Answer: B

NEW QUESTION 15

- (Exam Topic 1)

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

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

Answer: A

NEW QUESTION 19

- (Exam Topic 1)

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

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

Answer: B

NEW QUESTION 23

- (Exam Topic 1)

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

- A. Load balancing
- B. Geofencing
- C. Public cloud
- D. Content delivery network
- E. Infrastructure as a service

Answer: D

NEW QUESTION 27

- (Exam Topic 1)

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

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

Answer: A

NEW QUESTION 30

- (Exam Topic 1)

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

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

Answer: C

NEW QUESTION 34

- (Exam Topic 1)

A network administrator needs to query the NSs for a remote application. Which of the following commands would BEST help the administrator accomplish this task?

- A. dig
- B. arp
- C. show interface
- D. hostname

Answer: A

NEW QUESTION 39

- (Exam Topic 1)

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

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

Answer: D

NEW QUESTION 42

- (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

NEW QUESTION 44

- (Exam Topic 1)

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

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

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

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

Answer: A

NEW QUESTION 46

- (Exam Topic 1)

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

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

Answer: D

NEW QUESTION 50

- (Exam Topic 1)

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

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

D. SFP

Answer: B

NEW QUESTION 51

- (Exam Topic 1)

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

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

Answer: A

NEW QUESTION 56

- (Exam Topic 1)

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

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

Answer: D

NEW QUESTION 58

- (Exam Topic 1)

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

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

Answer: B

NEW QUESTION 63

- (Exam Topic 1)

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

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

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

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

Answer: C

NEW QUESTION 67

- (Exam Topic 1)

Access to a datacenter should be individually recorded by a card reader even when multiple employees enter the facility at the same time. Which of the following allows the enforcement of this policy?

- A. Motion detection
- B. Access control vestibules
- C. Smart lockers
- D. Cameras

Answer: B

Explanation:

The most effective security mechanism against physical intrusions due to stolen credentials would likely be a combination of several of these options. However, of the options provided, the most effective security mechanism would probably be an access control vestibule. An access control vestibule is a secure area that is located between the outer perimeter of a facility and the inner secure area. It is designed to provide an additional layer of security by requiring that individuals pass through a series of security checks before being allowed access to the secure area. This could include biometric authentication, access card readers, and motion detection cameras.

NEW QUESTION 70

- (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

NEW QUESTION 72

- (Exam Topic 1)

Which of the following routing protocols is used to exchange route information between public autonomous systems?

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

Answer: B

NEW QUESTION 75

- (Exam Topic 1)

Which of the following technologies provides a failover mechanism for the default gateway?

- A. FHRP
- B. LACP
- C. OSPF
- D. STP

Answer: A

NEW QUESTION 78

- (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: A

NEW QUESTION 82

- (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: C

NEW QUESTION 87

- (Exam Topic 1)

Which of the following ports is commonly used by VoIP phones?

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

Answer: D

NEW QUESTION 91

- (Exam Topic 1)

A technician needs to configure a Linux computer for network monitoring. The technician has the following information:

Linux computer details:

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

Switch mirror port details:

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

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

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

Answer: A

NEW QUESTION 95

- (Exam Topic 1)

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

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

Answer: C

NEW QUESTION 99

- (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

NEW QUESTION 102

- (Exam Topic 1)

At which of the following OSI model layers would a technician find an IP header?

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

Answer: C

NEW QUESTION 103

- (Exam Topic 1)

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

Datacenter

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

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

Building A

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

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

Replace the Telnet server with a more secure solution Screened subnet

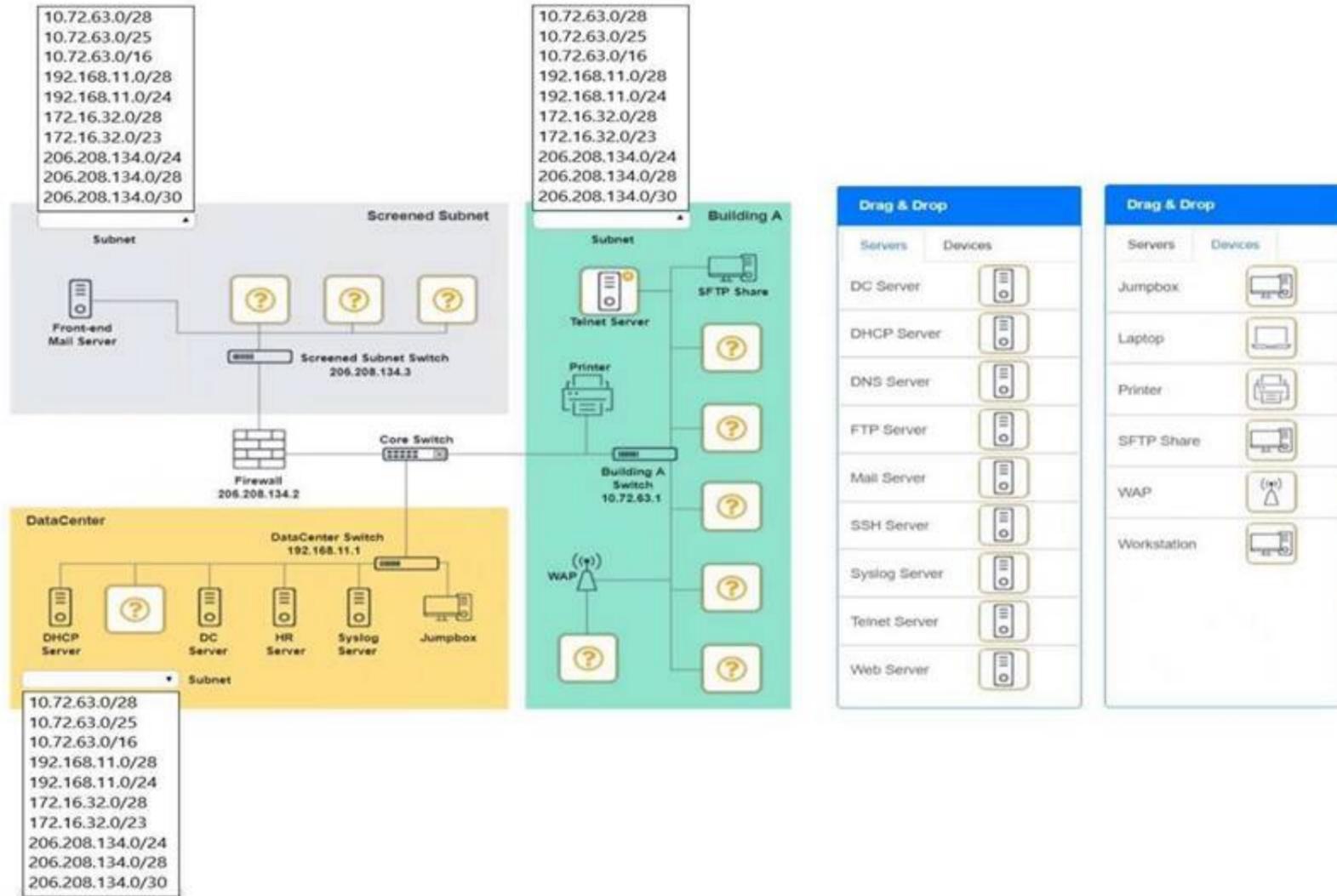
Ensure network is subnetted to allow all devices to communicate properly while minimizing address space usage

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

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

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

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

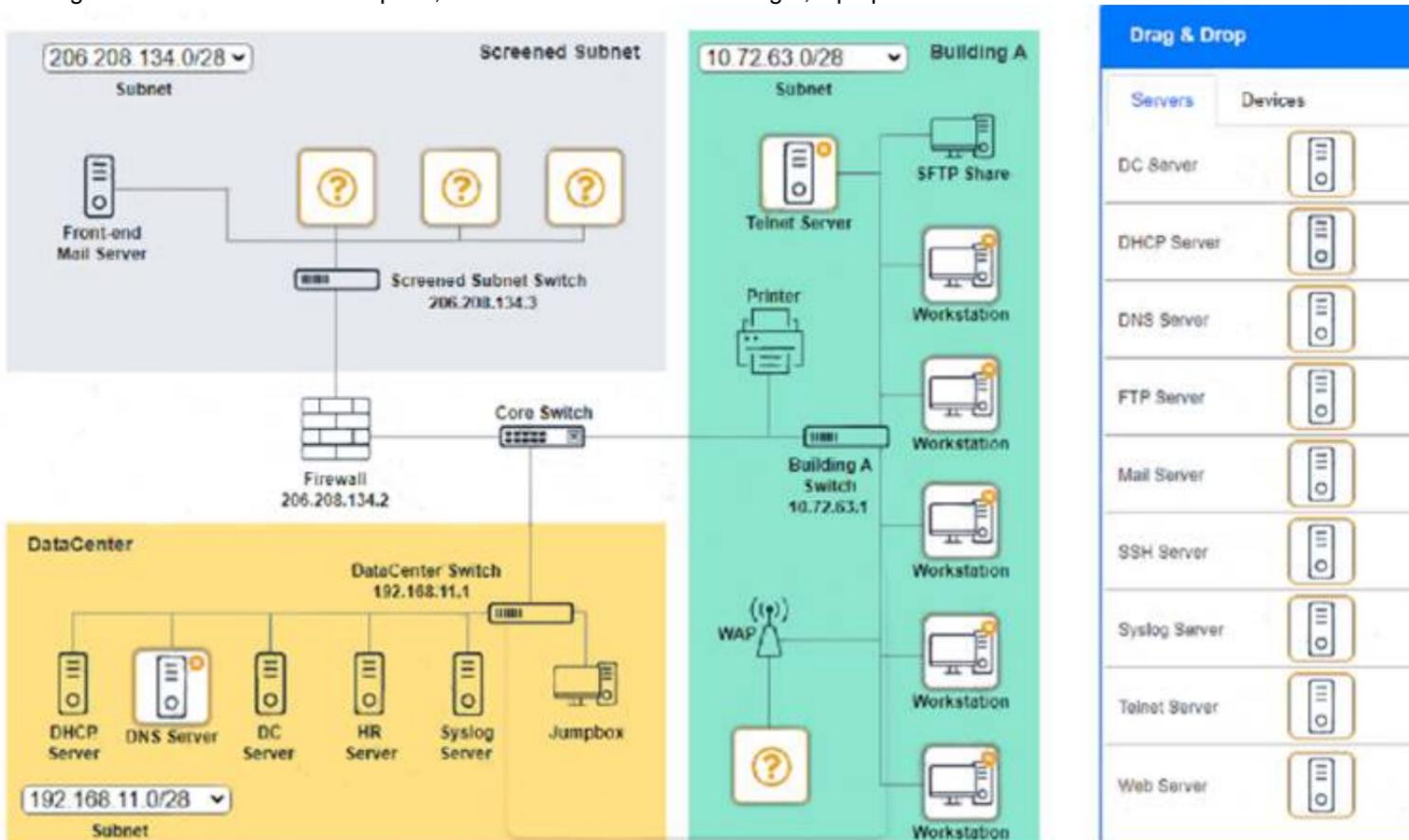


- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Screened Subnet devices – Web server, FTP server
 Building A devices – SSH server top left, workstations on all 5 on the right, laptop on bottom left
 DataCenter devices – DNS server.



NEW QUESTION 106

- (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

NEW QUESTION 109

- (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

NEW QUESTION 114

- (Exam Topic 2)

Which of the following is a system that is installed directly on a server's hardware and abstracts the hardware from any guest machines?

- A. Storage array
- B. Type 1 hypervisor
- C. Virtual machine
- D. Guest QS

Answer: A

NEW QUESTION 116

- (Exam Topic 2)

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

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

Answer: A

NEW QUESTION 119

- (Exam Topic 2)

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

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

Answer: C

NEW QUESTION 120

- (Exam Topic 2)

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

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

Answer: B

NEW QUESTION 124

- (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

NEW QUESTION 126

- (Exam Topic 2)

Which of the following policies should be referenced when a user wants to access work email on a personal cell phone?

- A. Offboarding policy
- B. Acceptable use policy
- C. BYOD policy
- D. Remote access policy

Answer: C

NEW QUESTION 128

- (Exam Topic 2)

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

"Configure a valid static RFC1918 address for your network. Check the option to use a connection over NAT." Which of the following is a valid IP address configuration for the device?

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

Answer: D

NEW QUESTION 130

- (Exam Topic 2)

A network administrator wants to reduce overhead and increase efficiency on a SAN. Which of the following can be configured to achieve these goals?

- A. Port aggregation
- B. Traffic shaping
- C. Jumbo frames
- D. Flow control

Answer: C

NEW QUESTION 132

- (Exam Topic 2)

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

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

Answer: A

NEW QUESTION 137

- (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: D

NEW QUESTION 138

- (Exam Topic 2)

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

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

Answer: C

NEW QUESTION 139

- (Exam Topic 2)

A network technician is installing an analog desk phone for a new receptionist After running a new phone line, the technician now needs to crmp on a new connector. Which of the following connectors would MOST likely be used in this case?

- A. DB9
- B. RJ11

- C. RJ45
- D. DB25

Answer: A

NEW QUESTION 140

- (Exam Topic 2)

A systems administrator is configuring a firewall using NAT with PAT. Which of the following would be BEST suited for the LAN interface?

- A. 172.15.0.0/18
- B. 172.18.0.0/10
- C. 172.23.0.0/16
- D. 172.28.0.0/8
- E. 172.32.0.0/14

Answer: C

NEW QUESTION 143

- (Exam Topic 2)

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

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

Answer: A

Explanation:

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

NEW QUESTION 148

- (Exam Topic 2)

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

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

Answer: A

NEW QUESTION 153

- (Exam Topic 2)

Which of the following is required when connecting an endpoint device with an RJ45 port to a network device with an ST port?

- A. A media converter
- B. A bridge
- C. An MDIX
- D. A load balancer

Answer: A

NEW QUESTION 154

- (Exam Topic 2)

A company's network is set up so all Internet-bound traffic from all remote offices exits through a main datacenter. Which of the following network topologies would BEST describe this setup?

- A. Bus
- B. Spine-and-leaf
- C. Hub-and-spoke
- D. Mesh

Answer: C

NEW QUESTION 155

- (Exam Topic 2)

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

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

Answer: A

NEW QUESTION 158

- (Exam Topic 2)

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

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

Answer: C

NEW QUESTION 162

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

Answer: A

NEW QUESTION 167

- (Exam Topic 2)

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

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

Answer: A

NEW QUESTION 171

- (Exam Topic 2)

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

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

Answer: A

NEW QUESTION 172

- (Exam Topic 2)

A company that uses VoIP telephones is experiencing intermittent issues with one-way audio and dropped conversations The manufacturer says the system will work if ping times are less than 50ms. The company has recorded the following ping times:

10ms	10ms	10ms	100ms	70ms	5ms	5ms	80ms	100ms	5ms	5ms
------	------	------	-------	------	-----	-----	------	-------	-----	-----

Which of the following is MOST likely causing the issue?

- A. Attenuation
- B. Latency
- C. VLAN mismatch
- D. Jitter

Answer: A

NEW QUESTION 174

- (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

NEW QUESTION 176

- (Exam Topic 2)

Which of the following cable types would MOST likely be used to provide high-speed network connectivity between nearby buildings?

- A. UTP
- B. Coaxial
- C. Fiber
- D. Cat 5
- E. Twinaxial

Answer: C

NEW QUESTION 179

- (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

NEW QUESTION 183

- (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

NEW QUESTION 185

- (Exam Topic 2)

A packet is assigned a value to ensure it does not traverse a network indefinitely. Which of the following BEST represents this value?

- A. Zero Trust
- B. Planned obsolescence
- C. Time to live
- D. Caching

Answer: C

NEW QUESTION 186

- (Exam Topic 2)

Which of the following VPN configurations should be used to separate Internet and corporate traffic?

- A. Split-tunnel
- B. Remote desktop gateway
- C. Site-to-site
- D. Out-of-band management

Answer: A

NEW QUESTION 188

- (Exam Topic 2)

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

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

Answer: B

NEW QUESTION 190

- (Exam Topic 2)

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

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

Answer: C

NEW QUESTION 194

- (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: A

NEW QUESTION 198

- (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: A

NEW QUESTION 202

- (Exam Topic 2)

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

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

Answer: C

NEW QUESTION 207

- (Exam Topic 2)

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

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

Answer: C

NEW QUESTION 210

- (Exam Topic 2)

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

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

Answer: C

NEW QUESTION 215

- (Exam Topic 2)

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

- A. The lab environment's IDS is blocking the network traffic. The technician can whitelist the new application in the IDS.
- B. The lab environment is located in the DMZ, and traffic to the LAN zone is denied by default.
- C. The technician can move the computer to another zone or request an exception from the administrator.
- D. The lab environment has lost connectivity to the company router, and the switch needs to be rebooted. The technician can get the key to the wiring closet and

manually restart the switch

E. The lab environment is currently set up with hubs instead of switches, and the requests are getting bounced back The technician can submit a request for upgraded equipment to management.

Answer: B

NEW QUESTION 220

- (Exam Topic 2)

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

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

Answer: B

NEW QUESTION 223

- (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 227

- (Exam Topic 3)

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

- A. F-type connector
- B. TIA/EIA-568-B
- C. LC
- D. SC

Answer: B

Explanation:

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

NEW QUESTION 232

- (Exam Topic 3)

A network administrator is looking at switch features and is unsure whether to purchase a model with PoE Which of the following devices that commonly utilize PoE should the administrator consider? (Select TWO)

- A. VoIP phones
- B. Cameras
- C. Printers
- D. Cable modems
- E. Laptops
- F. UPSs

Answer: AB

Explanation:

Power over Ethernet (PoE) is a technology that allows network-connected devices to receive power over the same Ethernet cables that are used for data transfer. PoE is commonly used to power devices such as VoIP phones and cameras, making it an ideal choice for network administrators looking for a cost-effective solution. PoE is not typically used for other devices such as printers, cable modems, laptops, and UPSs.

NEW QUESTION 236

- (Exam Topic 3)

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

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

Answer: B

NEW QUESTION 241

- (Exam Topic 3)

A new office space is being designed. The network switches are up, but no services are running yet. A network engineer plugs in a laptop configured as a DHCP client to a switch. Which of the following IP addresses should be assigned to the laptop?

- A. 10.1.1.1
- B. 169.254.1.128
- C. 172.16.128.128
- D. 192.168.0.1

Answer: B

Explanation:

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

NEW QUESTION 246

- (Exam Topic 3)

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

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

Answer: B

Explanation:

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

NEW QUESTION 248

- (Exam Topic 3)

A medical building offers patients Wi-Fi in the waiting room. Which of the following security features would be the BEST solution to provide secure connections and keep the medical data protected?

- A. Isolating the guest network
- B. Securing SNMP
- C. MAC filtering
- D. Disabling unneeded switchports

Answer: A

NEW QUESTION 252

- (Exam Topic 3)

An administrator would like to allow Windows clients from outside the office to access workstations without using third-party software. Which of the following access methods would meet this requirement?

- A. Remote desktop gateway
- B. Split 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 257

- (Exam Topic 3)

Network traffic is being compromised by DNS poisoning every time a company's router is connected to the internet. The network team detects a non-authorized DNS server being assigned to the network clients and remediates the incident by setting a trusted DNS server, but the issue occurs again after internet exposure. Which of the following best practices should be implemented on the router?

- A. Change the device's default password.

- B. Disable router advertisement guard.
- C. Activate control plane policing.
- D. Disable unneeded network services.

Answer: A

NEW QUESTION 258

- (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 261

- (Exam Topic 3)

A network administrator is given the network 80.87.78.0/26 for specific device assignments. Which of the following describes this network?

- A. 80.87.78.0 - 80.87.78.14
- B. 80.87.78.0 - 80.87.78.110
- C. 80.87.78.1 - 80.87.78.62
- D. 80.87.78.1 - 80.87.78.158

Answer: C

Explanation:

The network 80.87.78.0/26 is a Class A network with a subnet mask of /26, which means that it contains 26 bits of network information and 6 bits of host information. The range of valid host addresses for this network is 80.87.78.1 to 80.87.78.62. Any addresses outside of this range are reserved for special purposes or are not used.

NEW QUESTION 263

- (Exam Topic 3)

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

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

Answer: A

NEW QUESTION 268

- (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 269

- (Exam Topic 3)

Which of the following needs to be tested to achieve a Cat 6a certification for a company's data cabling?

- A. RJ11
- B. LC ports
- C. Patch panel
- D. F-type connector

Answer: D

NEW QUESTION 273

- (Exam Topic 3)

Two network technicians are installing a fiber-optic link between routers. The technicians used a light meter to verify the correct fibers. However, when they connect the fibers to the router interface the link does not connect. Which of the following would explain the issue? (Select TWO).

- A. They used the wrong type of fiber transceiver.
- B. Incorrect TX/RX polarity exists on the link
- C. The connection has duplexing configuration issues.
- D. Halogen light fixtures are causing interference.
- E. One of the technicians installed a loopback adapter.
- F. The RSSI was not strong enough on the link

Answer: AB

NEW QUESTION 275

- (Exam Topic 3)

Which of the following would be BEST suited for a long cable run with a 40Gbps bandwidth?

- A. Cat 5e
- B. Cat 6a
- C. Cat 7
- D. Cat 8

Answer: D

Explanation:

Reference: <https://scoop.co.za/blog/choosing-the-right-cable-for-your-network>

NEW QUESTION 280

- (Exam Topic 3)

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

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

Answer: D

NEW QUESTION 282

- (Exam Topic 3)

A network engineer needs to reduce the overhead of file transfers. Which of the following configuration changes would accomplish that goal?

- A. Link aggregation
- B. Jumbo frames
- C. Port security
- D. Flow control
- E. Lower FTP port

Answer: A

NEW QUESTION 284

- (Exam Topic 3)

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

- A. Factory reset
- B. Autolock
- C. Encryption
- D. Two-factor authentication

Answer: C

NEW QUESTION 285

- (Exam Topic 3)

A Wi-Fi network was originally configured to be able to handle interference from a microwave oven. The microwave oven was recently removed from the office. Now the network administrator wants to optimize the system to maximize the range of the signal. The main sources of signal degradation are the numerous cubicles and wooden walls between the WAP and the intended destination. Which of the following actions should the administrator take?

- A. Implement CDMA.
- B. Change from omni to directional.
- C. Change the SSID.
- D. Change the frequency.

Answer: D

Explanation:

- the microwave was already removed from the office
- the signal is OK now
- Notice that the question mentions "numerous cubicles and wooden walls" - meaning the signal now won't have the interference as before
- KEY POINT: the admin wants to "maximize the range of the signal:"
Manually change the frequency to 2.4 GHz for more reliable speeds and range. While 5 GHz gives you a stronger signal, it doesn't travel through walls or ceilings as well, so it doesn't give you the best range.
"Microwave ovens: Older microwave ovens, which might not have sufficient shielding, can emit relatively high-powered signals in the 2.4GHz band, resulting in significant interference with WLAN devices operating in the 2.4GHz band."

NEW QUESTION 289

- (Exam Topic 3)

An engineer is gathering data to determine the effectiveness of UPSs in use at remote retail locations. Which of the following statistics can the engineer use to determine the availability of the remote network equipment?

- A. Uptime
- B. NetFlow baseline
- C. SNMP traps
- D. Interface statistics

Answer: A

Explanation:

Uptime is a statistic that can be used to determine the availability of the remote network equipment. Uptime is the amount of time that a device or system has been running without experiencing any failures or disruptions. It is commonly expressed as a percentage of total time, such as 99.99% uptime. By measuring the uptime of the network equipment at the remote retail locations, the engineer can determine how reliable and available the equipment is.

NEW QUESTION 293

- (Exam Topic 3)

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

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

Answer: C

NEW QUESTION 297

- (Exam Topic 3)

A newly installed VoIP phone is not getting the DHCP IP address it needs to connect to the phone system. Which of the following tasks needs to be completed to allow the phone to operate correctly?

- A. Assign the phone's switchport to the correct VLAN
- B. Statically assign the phone's gateway address.
- C. Configure a route on the VoIP network router.
- D. Implement a VoIP gateway

Answer: A

NEW QUESTION 302

- (Exam Topic 3)

Which of the following would MOST likely utilize PoE?

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

Answer: A

Explanation:

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

NEW QUESTION 306

- (Exam Topic 3)

Which of the following routing protocols is generally used by major ISPs for handling large-scale internet traffic?

- A. RIP
- B. EIGRP

- C. OSPF
- D. BGP

Answer: D

NEW QUESTION 311

- (Exam Topic 3)

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

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

Answer: A

NEW QUESTION 313

- (Exam Topic 3)

An administrator would like to have two servers at different geographical locations provide fault tolerance and high performance while appearing as one URL to users. Which of the following should the administrator implement?

- A. Load balancing
- B. Multipathing
- C. NIC teaming
- D. Warm site

Answer: A

Explanation:

Load balancing is a technique that can be used to provide fault tolerance and high performance while appearing as one URL to users. It is achieved by distributing the workload across multiple servers, which are usually located in different geographical locations. This allows for high performance and fault tolerance, as if one server fails, the other will take its place. Additionally, the multiple servers appear as one URL to the users, eliminating the need for the users to switch between servers.

NEW QUESTION 314

- (Exam Topic 3)

After HVAC failures caused network outages, the support team decides to monitor the temperatures of all the devices. The network administrator cannot find a command that will display this information. Which of the following will retrieve the necessary information?

- A. SNMP OID values
- B. NetFlow data export
- C. Network baseline configurations
- D. Security information and event management

Answer: A

Explanation:

The network administrator can use the Simple Network Management Protocol (SNMP) to monitor the temperatures of all the devices. SNMP is a widely-used protocol for managing and monitoring network devices, such as routers, switches, servers, and other networking equipment. SNMP allows network administrators to gather information about the performance and status of devices on the network, including temperature readings.

To retrieve the temperature information, the administrator will have to configure SNMP on the devices and configure SNMP manager software on their computer. Once the SNMP manager software is configured, it will be able to send SNMP requests to the devices and retrieve information such as temperature, voltage, fan speeds, etc. Many network devices have built-in SNMP support, and the administrator may also need to install SNMP agent software on the devices to enable SNMP monitoring.

The administrator can also use some specific command or tool like IPMI (Intelligent Platform Management Interface) or DCIM (Data Center Infrastructure Management) tools for monitoring the temperatures of all the devices.

NEW QUESTION 315

- (Exam Topic 3)

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

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

Answer: A

Explanation:

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

NEW QUESTION 318

- (Exam Topic 3)

A computer engineer needs to ensure that only a specific workstation can connect to port 1 on a switch. Which of the following features should the engineer configure on the switch interface?

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

Answer: B

Explanation:

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

NEW QUESTION 322

- (Exam Topic 3)

Which of the following describes when an active exploit is used to gain access to a network?

- A. Penetration testing
- B. Vulnerability testing
- C. Risk assessment
- D. Posture assessment
- E. Baseline testing

Answer: A

Explanation:

Penetration testing is a type of security testing that is used to assess the security of a system or network by actively exploiting known vulnerabilities. It is used to simulate an attack on the system and identify any weaknesses that may be exploited by malicious actors. As stated in the CompTIA Security+ Study Guide, "penetration testing is a type of security assessment that attempts to gain unauthorized access to networks and systems by exploiting security vulnerabilities."

NEW QUESTION 326

- (Exam Topic 3)

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

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

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

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

Answer: B

NEW QUESTION 331

- (Exam Topic 3)

A company joins a bank's financial network and establishes a connection to the clearinghouse servers in the range 192.168.124.0/27. An IT technician then realizes the range exists within the VM pool at the data center. Which of the following is the BEST way for the technician to connect to the bank's servers?

- A. NAT
- B. PAT
- C. CIDR
- D. SLAAC

Answer: A

NEW QUESTION 332

- (Exam Topic 3)

Which of the following is a requirement when certifying a network cabling as Cat 7?

- A. Ensure the patch panel is certified for the same category.
- B. Limit 10Gb transmissions to 180ft (55m).
- C. Use F-type connectors on the network terminations.

D. Ensure the termination standard is TIA/EIA-568-A.

Answer: D

Explanation:

Category 7 (Cat 7) is a cabling standard that supports 10GBASE-T Ethernet connections up to 100 meters (328 feet). In order for a cabling system to be certified as Cat 7, all components, including the patch panel, must meet the TIA/EIA-568-A standard. This standard requires the use of shielded cables with F-type connectors for the network terminations. Reference: CompTIA Network+ Study Manual, 8th Edition, page 158.

NEW QUESTION 334

- (Exam Topic 3)

A network administrator is preparing answers for an annual risk assessment that is required for compliance purposes. Which of the following would be an example of an internal threat?

- A. An approved vendor with on-site offices
- B. An infected client that pulls reports from the firm
- C. A malicious attacker from within the same country
- D. A malicious attacker attempting to socially engineer access into corporate offices

Answer: A

Explanation:

Insider threat= insider threat is defined as the threat that an employee or a contractor will use his or her authorized access, wittingly or unwittingly, to do harm

NEW QUESTION 338

- (Exam Topic 3)

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

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

Answer: E

NEW QUESTION 341

- (Exam Topic 3)

ARP spoofing would normally be a part of:

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

Answer: A

NEW QUESTION 342

- (Exam Topic 3)

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

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

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

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

Answer: A

NEW QUESTION 344

- (Exam Topic 3)

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

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

Answer: C

Explanation:

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

NEW QUESTION 348

- (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 351

- (Exam Topic 3)

A network administrator needs to run a single command-line tool capable of displaying routing table and multicast memberships. Which of the following would BEST help the administrator achieve the requirements?

- A. arp
- B. show route
- C. show config
- D. netstate

Answer: A

NEW QUESTION 355

- (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 357

- (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 360

- (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 361

- (Exam Topic 3)

A network administrator is troubleshooting an issue with a new Internet connection. The ISP is asking detailed questions about the configuration of the router that the network administrator is troubleshooting. Which of the following commands is the network administrator using? (Select TWO.)

- A. tcpdump
- B. show config
- C. hostname
- D. show route
- E. netstate
- F. show ip arp

Answer: BD

Explanation:

"The show config command (or some variation of it) is used to examine the configuration of a network device. For example, on a Cisco router, the show running-configuration command permits you to see the current configuration of the device, which is stored in the RAM of the device. To view the saved configuration that is loaded when the system is rebooted, you can use the show startup-configuration command."

"The show route command (or some variation of it) is used to view the routing table configuration of the network device. On a Cisco router, you can use show ip route to view the IPv4 routing table."

NEW QUESTION 365

- (Exam Topic 3)

A network engineer receives the following when connecting to a switch to configure a port:

```
telnet 10.1.200.1
Connecting to 10.1.200.1...Could not open connection to the host, on port 23: Connect failed.
```

Which of the following is the MOST likely cause for the failure?

- A. The network engineer is using the wrong protocol
- B. The network engineer does not have permission to configure the device
- C. SNMP has been secured with an ACL
- D. The switchport the engineer is trying to configure is down

Answer: D

NEW QUESTION 367

- (Exam Topic 3)

A network administrator is troubleshooting the communication between two Layer 2 switches that are reporting a very high runt count. After trying multiple ports on both switches, the issue persists. Which of the following should the network administrator perform to resolve the issue?

- A. Increase the MTU size on both switches.
- B. Recertify the cable between both switches.
- C. Perform a factory reset on both switches.
- D. Enable debug logging on both switches.

Answer: A

NEW QUESTION 371

- (Exam Topic 3)

A network administrator is trying to identify a device that is having issues connecting to a switchport. Which of the following would BEST help identify the issue?

- A. A syslog server
- B. Change management records
- C. A rack diagram
- D. The security log

Answer: A

NEW QUESTION 372

- (Exam Topic 3)

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

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

Answer: A

Explanation:

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

NEW QUESTION 376

- (Exam Topic 3)

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

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

Answer: A

Explanation:

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

NEW QUESTION 378

- (Exam Topic 3)

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

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

Answer: D

NEW QUESTION 382

- (Exam Topic 3)

Which of the following BEST describes hosting several businesses on the same physical infrastructure?

- A. Hybrid
- B. Elasticity
- C. IaaS
- D. Multitenancy

Answer: A

NEW QUESTION 387

- (Exam Topic 3)

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

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

Answer: B

Explanation:

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

NEW QUESTION 389

- (Exam Topic 3)

A technician is consolidating a topology with multiple SSIDs into one unique SSID deployment. Which of the following features will be possible after this new configuration?

- A. Seamless roaming
- B. Basic service set
- C. WPA
- D. MU-MIMO

Answer: A

NEW QUESTION 390

- (Exam Topic 3)

A network administrator wants to check all network connections and see the output in integer form. Which of the following commands should the administrator run on the command line?

- A. netstat
- B. netstat -a
- C. netstat -e
- D. netstat -n

Answer: A

NEW QUESTION 393

- (Exam Topic 3)

A network engineer needs to pass both data and telephony on an access port. Which of the following features should be configured to meet this requirement?

- A. VLAN
- B. VoIP
- C. VIP
- D. VRRP

Answer: A

NEW QUESTION 396

- (Exam Topic 3)

Which of the following is conducted frequently to maintain an updated list of a system's weaknesses?

- A. Penetration test
- B. Posture assessment
- C. Risk assessment
- D. Vulnerability scan

Answer: D

NEW QUESTION 399

- (Exam Topic 3)

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

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

Answer: D

NEW QUESTION 402

- (Exam Topic 3)

Which of the following security controls indicates unauthorized hardware modifications?

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

Answer: A

NEW QUESTION 403

- (Exam Topic 3)

Which of the following attack vectors represents a large number of devices sending access requests to a website, making it unavailable to respond?

- A. Virus
- B. Botnet
- C. ARP spoofing
- D. DDoS

Answer: D

NEW QUESTION 405

- (Exam Topic 3)

A technician is consolidating a topology with multiple SSIDs into one unique SSID deployment. Which of the following features will be possible after this new configuration?

- A. Seamless roaming
- B. Basic service set
- C. WPA
- D. MU-MIMO

Answer: A

NEW QUESTION 407

- (Exam Topic 3)

Which of the following attacks, if successful, would provide a malicious user who is connected to an isolated guest network access to the corporate network?

- A. VLAN hopping
- B. On-path attack
- C. IP spoofing
- D. Evil twin

Answer: A

Explanation:

The attack which, if successful, would provide a malicious user who is connected to an isolated guest network access to the corporate network is VLAN hopping. VLAN hopping is an attack technique which involves tricking a switch into sending traffic from one VLAN to another. This is done by sending specially crafted packets, which force the switch to send traffic from one VLAN to another, thus allowing the malicious user to gain access to the corporate network. VLAN hopping is an attack technique which involves tricking a switch into sending traffic from one VLAN to another. This is done by sending specially crafted packets, which force the switch to send traffic from one VLAN to another, thus allowing the malicious user to gain access to the corporate network. According to the CompTIA Network+ N10-008 Exam Guide VLAN hopping is a type of attack that is used to gain access to network resources that are not meant to be accessible by a user on a guest network.

NEW QUESTION 409

- (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 412

- (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/dhpcpfg.html>

NEW QUESTION 413

- (Exam Topic 3)

An attacker targeting a large company was able to inject malicious A records into internal name resolution servers. Which of the following attack types was MOST likely used?

- A. DNS poisoning
- B. On-path
- C. IP spoofing
- D. Rogue DHCP

Answer: A

NEW QUESTION 417

- (Exam Topic 3)

A company just migrated its email service to a cloud solution. After the migration, two-thirds of the internal users were able to connect to their mailboxes, but the connection fails for the other one-third of internal users. Users working externally are not reporting any issues. The network administrator identifies the following output collected from an internal host:

```
c:\user> nslookup newmail.company.com
```

```
Non-Authoritative answer:
```

```
Name: newmail.company.com
```

```
IPs: 3.219.13.186, 64.58.225.184, 184.168.131.243
```

Which of the following verification tasks should the network administrator perform NEXT?

- A. Check the firewall ACL to verify all required IP addresses are included.
- B. Verify the required router PAT rules are properly configured.
- C. Confirm the internal DNS server is replying to requests for the cloud solution.
- D. Validate the cloud console to determine whether there are unlicensed requests.

Answer: A

NEW QUESTION 419

- (Exam Topic 3)

An auditor assessing network best practices was able to connect a rogue switch into a network Jack and get network connectivity. Which of the following controls would BEST address this risk?

- A. Activate port security on the switchports providing end user access.
- B. Deactivate Spanning Tree Protocol on network interfaces that are facing public areas.
- C. Disable Neighbor Resolution Protocol in the Layer 2 devices.
- D. Ensure port tagging is in place for network interfaces in guest areas

Answer: A

NEW QUESTION 422

- (Exam Topic 3)

A network engineer is monitoring a fiber uplink to a remote office and notes the uplink has been operating at 100% capacity for a long duration. Which of the following performance metrics is MOST likely to be impacted with sustained link saturation?

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

Answer: A

Explanation:

When a fiber uplink is operating at 100% capacity for an extended period of time, it can cause sustained link saturation. This can impact the network's performance by increasing latency. Latency is the time it takes for a packet to travel from the source to its destination. When there is link saturation, packets may have to wait in a queue before being transmitted, which increases the time it takes for them to reach their destination. As a result, users may experience delays or timeouts when accessing network resources.

Other metrics such as jitter, speed, and bandwidth are also important, but they are not as directly impacted by sustained link saturation as latency.

NEW QUESTION 423

- (Exam Topic 3)

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

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

Answer: A

Explanation:

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

NEW QUESTION 427

- (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 internet. 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 model, 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 430

- (Exam Topic 3)

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

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

Answer: B

Explanation:

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

NEW QUESTION 433

- (Exam Topic 3)

A Network engineer is investigating issues on a Layer 2 Switch. The department typically snares a Switchport during meetings for presentations, but after the first user Shares, no Other users can connect. Which Of the following is MOST likely related to this issue?

- A. Spanning Tree Protocol is enabled on the switch.
- B. VLAN trunking is enabled on the switch.
- C. Port security is configured on the switch.
- D. Dynamic ARP inspection is configured on the switch.

Answer: C

NEW QUESTION 434

- (Exam Topic 3)

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

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

Answer: B

NEW QUESTION 439

- (Exam Topic 3)

A customer wants to log in to a vendor's server using a web browser on a laptop. Which of the following would require the LEAST configuration to allow encrypted access to the server?

- A. Secure Sockets Layer
- B. Site-to-site VPN
- C. Remote desktop gateway
- D. Client-to-site VPN

Answer: A

Explanation:

SSL is a widely used protocol for establishing secure, encrypted connections between devices over the Internet. It is typically used to secure communication between web browsers and servers, and can be easily enabled on a server by installing an SSL certificate.

NEW QUESTION 440

- (Exam Topic 3)

A cafeteria is facing lawsuits related to criminal internet access that was made over its guest network. The marketing team, however, insists on keeping the cafeteria phone number as the wireless passphrase. Which of the following actions would Improve wireless security while accommodating the marketing team and accepting the terms of use?

- A. Setting WLAN security to use EAP-TLS
- B. Deploying a captive portal for user authentication
- C. Using geofencing to limit the area covered by the WLAN
- D. Configuring guest network isolation

Answer: B

Explanation:

A captive portal is a web page that is presented to a user before they are allowed to access a network. It is used to authenticate users and to ensure that all users have accepted the terms of use for the network. By deploying a captive portal, the cafeteria can require users to enter their phone number as the passphrase, while still providing an additional layer of security. Reference: CompTIA Network+ Study Guide, 8th Edition, page 182.

NEW QUESTION 441

- (Exam Topic 3)

A technician is trying to install a VoIP phone, but the phone is not turning on. The technician checks the cable going from the phone to the switch, and the cable is good. Which of the following actions IS needed for this phone to work?

- A. Add a POE injector
- B. Enable MDIX.
- C. Use a crossover cable.
- D. Reconfigure the port.

Answer: A

NEW QUESTION 445

- (Exam Topic 3)

A network administrator determines that even when optimal wireless coverage is configured, the network users still report constant disconnections. After troubleshooting, the administrator determines that moving from one location to another causes the disconnection. Which of the following settings should provide better network stability?

- A. Client association timeout
- B. RSSI roaming threshold
- C. RF attenuation ratio
- D. EIRP power setting

Answer: B

Explanation:

In this case, the most likely cause of the constant disconnections when moving from one location to another is likely due to a problem with the roaming functionality of the wireless network. The setting that would likely provide better network stability in this situation is the RSSI roaming threshold, which determines the signal strength required for a client device to remain connected to the wireless network. If the roaming threshold is set too low, the client device may disconnect and reconnect to the network too frequently as it moves between different access points. On the other hand, if the threshold is set too high, the client device may not roam to a new access point when necessary, leading to a loss of connectivity. Adjusting the RSSI roaming threshold to an appropriate value may help to improve the stability of the wireless network in this situation.

NEW QUESTION 447

- (Exam Topic 3)

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

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

Answer: D

Explanation:

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

NEW QUESTION 450

- (Exam Topic 3)

A company wants to set up a backup data center that can become active during a disaster. The site needs to contain network equipment and connectivity. Which of the following strategies should the company employ?

- A. Active-active
- B. Warm
- C. Cold
- D. Cloud

Answer: B

Explanation:

Active-active refers to more than one NIC being active at the same time. In my opinion, this question is referring to a recovery site (hot, warm, cold, cloud)

NEW QUESTION 454

- (Exam Topic 3)

Which of the following would enable a network technician to implement dynamic routing?

- A. An IPS
- B. A bridge
- C. A Layer 3 switch
- D. A hub

Answer: C

NEW QUESTION 459

- (Exam Topic 3)

A network technician is troubleshooting an application issue. The technician is able to recreate the issue in a virtual environment. According to the troubleshooting methodology, which of the following actions will the technician most likely perform NEXT?

- A. Gather information from the initial report.
- B. Escalate the issue to a supervisor.
- C. Implement a solution to resolve the issue.
- D. Establish a theory of probable cause.

Answer: D

NEW QUESTION 461

- (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 462

- (Exam Topic 3)

AGRE tunnel has been configured between two remote sites. Which of the following features, when configured, ensures the GRE overhead does not affect payload?

- A. jumbo frames
- B. Auto medium-dependent Interface
- C. Interface crossover
- D. Collision detection

Answer: A

Explanation:

One of the features that can be configured to ensure that GRE overhead does not affect payload is A. jumbo frames. Jumbo frames are Ethernet frames that have a payload size larger than 1500 bytes, which is the standard maximum transmission unit (MTU) for Ethernet. By using jumbo frames, more data can be sent in each packet, reducing the overhead ratio and improving efficiency.

Auto medium-dependent interface (MDI), interface crossover, and collision detection are features related to Ethernet physical layer connectivity, but they do not affect GRE overhead or payload.

NEW QUESTION 465

- (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 469

- (Exam Topic 3)

Which of the following protocols would allow a secure connection to a Linux-based system?

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

Answer: D

NEW QUESTION 473

- (Exam Topic 3)

A technician is deploying a new SSID for an industrial control system. The control devices require the network to use encryption that employs TKIP and a symmetrical password to connect. Which of the following should the technician configure to ensure compatibility with the control devices?

- A. WPA2-Enterprise
- B. WPA-Enterprise
- C. WPA-PSK
- D. WPA2-PSK

Answer: C

Explanation:

"WPA uses Temporal Key Integrity Protocol (TKIP) for enhanced encryption. TKIP uses RC4 for the encryption algorithm, and the CompTIA Network+ exam may reference TKIP-RC4 in a discussion of wireless."

"WPA2 uses Counter Mode with Cipher Block Chaining Message Authentication Code

Protocol (CCMP) for integrity checking and Advanced Encryption Standard (AES) for encryption. On the Network+ exam, you might find this referenced as simply CCMP-AES"

NEW QUESTION 478

- (Exam Topic 3)

Which of the following would be the MOST cost-effective recovery solution for a company's lower-priority applications?

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

Answer: C

NEW QUESTION 482

- (Exam Topic 3)

A PC user who is on a local network reports very slow speeds when accessing files on the network server. The user's PC is connecting, but file downloads are very slow when compared to other users' download speeds. The PC's NIC should be capable of Gigabit Ethernet. Which of the following will MOST likely fix the issue?

- A. Releasing and renewing the PC's IP address
- B. Replacing the patch cable
- C. Reseating the NIC inside the PC
- D. Flushing the DNS cache

Answer: B

Explanation:

A slow download speed can be caused by a faulty patch cable, which is the cable used to connect the user's PC to the network server. If the patch cable is damaged, the connection will be slower than expected, resulting in slow download speeds. Replacing the patch cable is the most likely solution to this issue, as it will provide a new, reliable connection that should allow for faster download speeds.

NEW QUESTION 483

- (Exam Topic 3)

A network administrator responds to a support ticket that was submitted by a customer who is having issues connecting to a website inside of the company network. The administrator verifies that the customer could not connect to a website using a URL. Which of the following troubleshooting steps would be BEST for the administrator to take?

- A. Check for certificate issues
- B. Contact the ISP
- C. Attempt to connect to the site via IP address
- D. Check the NTP configuration.

Answer: C

Explanation:

The best option for the administrator to take would be to attempt to connect to the site via IP address. This will help to determine if the issue is related to the website's DNS address or if the site itself is not accessible. Checking for certificate issues may be necessary, but this should be done after the administrator has attempted to connect to the site via IP address. Contacting the ISP is unnecessary since the issue is related to the website inside of the company network, and checking the NTP configuration is not relevant to this issue.

When a customer is having issues connecting to a website using a URL, one of the first troubleshooting steps a network administrator should take is attempting to connect to the site using the IP address of the website. This will help to determine if the issue is related to a DNS resolution problem or a connectivity problem. If the administrator is able to connect to the website using the IP address, then the issue may be related to a DNS problem. However, if the administrator is still unable to connect, then the issue may be related to a connectivity problem. In either case, further troubleshooting steps will be necessary. Checking for certificate issues or NTP configuration, and contacting the ISP would not be the BEST initial steps in this scenario.

NEW QUESTION 487

- (Exam Topic 3)

Which of the following BEST describes a split-tunnel client-to-server VPN connection?

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

Answer: C

Explanation:

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

NEW QUESTION 492

- (Exam Topic 3)

A client who shares office space and an IT closet with another company recently reported connectivity issues throughout the network. Multiple third-party vendors regularly perform on-site maintenance in the shared IT closet. Which of the following security techniques would BEST secure the physical networking equipment?

- A. Disabling unneeded switchports
- B. Implementing role-based access
- C. Changing the default passwords
- D. Configuring an access control list

Answer: A

NEW QUESTION 494

- (Exam Topic 3)

A false camera is installed outside a building to assist with physical security. Which of the following is the device assisting?

- A. Detection
- B. Recovery
- C. Identification
- D. Prevention

Answer: A

NEW QUESTION 495

- (Exam Topic 3)

A technician installed an 8-port switch in a user's office. The user needs to add a second computer in the office, so the technician connects both PCs to the switch and connects the switch to the wall jack. However, the new PC cannot connect to network resources. The technician then observes the following:

- The new computer does not get an IP address on the client's VLAN.
- Both computers have a link light on their NICs.
- The new PC appears to be operating normally except for the network issue.
- The existing computer operates normally.

Which of the following should the technician do NEXT to address the situation?

- A. Contact the network team to resolve the port security issue.
- B. Contact the server team to have a record created in DNS for the new PC.
- C. Contact the security team to review the logs on the company's SIEM.
- D. Contact the application team to check NetFlow data from the connected switch.

Answer: A

NEW QUESTION 499

- (Exam Topic 3)

Which of the following can have multiple VLAN interfaces?

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

Answer: B

NEW QUESTION 500

- (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 504

- (Exam Topic 3)

A small office is running WiFi 4 APs, and neighboring offices do not want to increase the throughput to associated devices. Which of the following is the MOST cost-efficient way for the office to increase network performance?

- A. Add another AP.
- B. Disable the 2.4GHz radios.
- C. Enable channel bonding.
- D. Upgrade to WiFi 5.

Answer: C

Explanation:

Channel bonding is a practice commonly used in IEEE 802.11 implementations in which two adjacent channels within a given frequency band are combined to increase throughput between two or more wireless devices. Channel bonding is also known as Ethernet bonding, but it is used heavily in Wi-Fi implementations. It has become a very popular technique in the world of Wi-Fi because its increased throughput provides for more functionality within Wi-Fi deployments. Channel bonding is also known as NIC bonding. Source- <https://www.techopedia.com/definition/2999/channel-bonding>

NEW QUESTION 508

- (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 513

- (Exam Topic 3)

Which of the following compromises internet-connected devices and makes them vulnerable to becoming part of a botnet? (Select TWO).

- A. Deauthentication attack
- B. Malware infection
- C. IP spoofing
- D. Firmware corruption
- E. Use of default credentials
- F. Dictionary attack

Answer: BE

NEW QUESTION 516

- (Exam Topic 3)

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

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

Answer: B

NEW QUESTION 519

- (Exam Topic 3)

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

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

Answer: B

Explanation:

The best choice for configuring link port aggregation between a Gigabit Ethernet distribution switch and a Fast Ethernet access switch is to use full duplex and 1GB speed for all interfaces that are participating in the link aggregation. This will allow for maximum throughput, as the full duplex connection will enable simultaneous sending and receiving of data, and the 1GB speed will ensure that the data is transferred quickly.

According to the CompTIA Network+ Study Guide, "Full-duplex Ethernet allows the network adapter to transmit and receive data simultaneously, which can result in double the bandwidth of half-duplex Ethernet." Additionally, the official text states, "Ethernet and Fast Ethernet use different speeds for data transmission, with Ethernet being 1,000 megabits (1 gigabit) per second and Fast Ethernet being 100 megabits per second."

NEW QUESTION 521

- (Exam Topic 3)

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

- A. ARP table
- B. DHCP leases
- C. IP route table
- D. DNS cache

- E. MAC address table
- F. STP topology

Answer: BE

NEW QUESTION 524

- (Exam Topic 3)

A network technician receives a report about a performance issue on a client PC that is connected to port 1/3 on a network switch. The technician observes the following configuration output from the switch:

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

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

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

Answer: A

NEW QUESTION 526

- (Exam Topic 3)

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

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

Answer: A

NEW QUESTION 528

- (Exam Topic 3)

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

Switch 1:

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

Switch 2:

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

Switch 3:

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

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

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

Answer: AE

NEW QUESTION 533

- (Exam Topic 3)

An IT administrator received an assignment with the following objectives

- Conduct a total scan within the company's network tor all connected hosts

- Detect all the types of operating systems running on all devices
 - Discover all services offered by hosts on the network
 - Find open ports and detect security risks.
- Which of the following command-line tools can be used to achieve these objectives?

- A. nmap
- B. arp
- C. netatst
- D. tcpdump

Answer: A

Explanation:

Nmap (Network Mapper) is a free and open source command line tool that can be used to scan a network for all connected hosts, detect the types of operating systems running on all devices, discover all services offered by hosts on the network, find open ports, and detect security risks. Nmap is commonly used by system administrators and security professionals to audit a network's security and identify possible vulnerabilities. Nmap can be used to discover active hosts, scan ports, fingerprint operating systems, detect running services, and more. Reference: CompTIA Network+ Study Manual, 8th Edition, page 592.

NEW QUESTION 535

- (Exam Topic 3)

A network administrator is planning a WLAN for a soccer stadium and was advised to use MU-MIMO to improve connection performance in high-density areas. The project requires compatibility with clients connecting using 2.4GHz or 5GHz frequencies. Which of the following would be the BEST wireless standard for this project?

- A. 80211ac
- B. 802.11ax
- C. 802.11g
- D. 80211n

Answer: B

NEW QUESTION 537

- (Exam Topic 3)

Which of the following use cases would justify the deployment of an mGRE hub-and-spoke topology?

- A. An Increase In network security using encryption and packet encapsulation
- B. A network expansion caused by an increase in the number of branch locations to the headquarters
- C. A mandatory requirement to increase the deployment of an SOWAN network
- D. An Improvement In network efficiency by increasing the useful packet payload

Answer: C

NEW QUESTION 542

- (Exam Topic 3)

A network technician is performing tests on a potentially faulty network card that is installed in a server. Which of the following addresses will MOST likely be used during traffic diagnostic tests?

- A. 10.10.10.10
- B. 127.0.0.1
- C. 192.168.0.1
- D. 255.255.255.0

Answer: B

Explanation:

* 127.1.1.1 is the loopback address, it is used to test the functionality of a network card by sending traffic to the card and then verifying that it is received properly. This address is used because it is guaranteed to always point to the local host, regardless of the network configuration. The IP address range for loopback addresses is 127.0.0.0/8.

NEW QUESTION 545

- (Exam Topic 3)

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

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

Answer: A

Explanation:

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

NEW QUESTION 547

- (Exam Topic 3)

A network administrator is designing a wireless network. The administrator must ensure a rented office space has a sufficient signal. Reducing exposure to the

wireless network is important, but it is secondary to the primary objective. Which of the following would MOST likely facilitate the correct accessibility to the Wi-Fi network?

- A. Polarization
- B. Channel utilization
- C. Channel bonding
- D. Antenna type
- E. MU-MIMO

Answer: B

NEW QUESTION 548

- (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 552

- (Exam Topic 3)

During a client audit, a network analyst is tasked with recommending changes to upgrade the client network and readiness. A field technician has submitted the following report:

Building B is connected to Building A via site-to-site directional antennas.
Thirty additional users have been added recently and are not shown on the network map.
The IT closet and storage room share a space that has poor ventilation.
Performance reports show optimal network performance but little on system health.

Based on this report, which of the following metrics or sensors would be the BEST recommendation to the client?

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

Answer: D

NEW QUESTION 554

- (Exam Topic 3)

Which of the following is a benefit of the spine-and-leaf network topology?

- A. Increased network security
- B. Stable network latency
- C. Simplified network management
- D. Eliminated need for inter-VLAN routing

Answer: A

NEW QUESTION 557

- (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 559

- (Exam Topic 3)

Which of the following would be used when connecting devices that have different physical characteristics?

- A. A proxy server
- B. An industrial control system
- C. A load balancer
- D. A media converter

Answer: D

NEW QUESTION 562

- (Exam Topic 3)

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

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

Answer: A

NEW QUESTION 564

- (Exam Topic 3)

A company's data center is hosted at its corporate office to ensure greater control over the security of sensitive data. During times when there are increased workloads, some of the company's non-sensitive data is shifted to an external cloud provider. Which of the following cloud deployment models does this describe?

- A. Hybrid
- B. Community
- C. Public
- D. Private

Answer: A

NEW QUESTION 565

- (Exam Topic 3)

On a network with redundant switches, a network administrator replaced one of the switches but was unable to get a connection with another switch. Which of the following should the administrator check after successfully testing the cable that was wired for TIA/EIA-568A on both ends?

- A. If MDIX is enabled on the new switch
- B. If PoE is enabled
- C. If a plenum cable is being used
- D. If STP is disabled on the switches

Answer: A

Explanation:

Auto-MDIX (or medium dependent interface crossover) is a feature that automatically detects the type of cable connection and configures the interface accordingly (i.e. straight-through or crossover). This ensures that the connection between the two switches is successful. This is referenced in the CompTIA Network+ Study Manual, page 519.

NEW QUESTION 567

- (Exam Topic 3)

An administrator wants to increase the availability of a server that is connected to the office network. Which of the following allows for multiple NICs to share a single IP address and offers maximum performance while providing fault tolerance in the event of a NIC failure?

- A. Multipathing
- B. Spanning Tree Protocol
- C. First Hop Redundancy Protocol
- D. Elasticity

Answer: A

Explanation:

Reference: <https://docs.oracle.com/cd/E19455-01/806-6547/6jffv7oma/index.html>

NEW QUESTION 572

- (Exam Topic 3)

A network administrator is reviewing the network device logs on a syslog server. The messages are normal but the stamps on the messages are incorrect. Which of the following actions should the administrator take to ensure the log message time stamps are correct?

- A. Change the NTP settings on the network device
- B. Change the time on the syslog server
- C. Update the network device firmware
- D. Adjust the timeout settings on the syslog server
- E. Adjust the SSH settings on the network device.

Answer: A

NEW QUESTION 576

- (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 578

- (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 580

- (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 string
- D. Use SNMPv3.
- E. Incorporate SSL encryption
- F. Utilize IPsec tunneling.

Answer: CD

NEW QUESTION 581

- (Exam Topic 3)

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

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

Answer: D

NEW QUESTION 586

- (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 591

- (Exam Topic 3)

A technician is contracted to install a redundant cluster of devices from the ISP In case of a hardware failure within the network. Which of the following would provide the BEST redundant solution in Layer 2 devices?

- A. Multiple routers
- B. Multiple switches
- C. Multiple firewalls
- D. Multiple budgets

Answer: B

NEW QUESTION 596

- (Exam Topic 3)

A technician is investigating packet loss to a device that has varying data bursts throughout the day. Which of the following will the technician MOST likely configure to resolve the issue?

- A. Flow control
- B. Jumbo frames
- C. Duplex
- D. Port mirroring

Answer: A

Explanation:

Ethernet flow control is a mechanism for temporarily stopping the transmission of data on Ethernet family computer networks. The goal of this mechanism is to avoid packet loss in the presence of network congestion.

Flow control is a mechanism that allows a device to regulate the amount of data it receives from another device, ensuring that the receiving device is not overwhelmed with data. If the device experiencing packet loss is receiving large bursts of data at times when it is not able to process it quickly enough, configuring flow control could help prevent packets from being lost.

"In theory, flow control can help with situations like a host that can't keep up with the flow of traffic. It enables the host to send an Ethernet PAUSE frame, which asks the switch to hold up for some amount of time so the host can catch its breath. If the switch can, it'll buffer transmissions until the pause expires, and then start sending again. If the host catches up early, it can send another PAUSE frame with a delay of zero to ask the switch to resume. In practice, flow control can cause latency trouble for modern real-time applications such as VoIP, and the same needs are usually met by QoS"

NEW QUESTION 600

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