

Exam Questions N10-009

CompTIA Network+ Exam

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NEW QUESTION 1

- (Exam Topic 1)

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

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

Answer: A

Explanation:

RDP (Remote Desktop Protocol) is the best option for a network technician to use when installing new software on a Windows-based server in a different geographical location. This protocol allows the technician to connect to the server remotely and control it as if they were physically present.

References:

> Network+ N10-007 Certification Exam Objectives, Objective 2.2: Given a scenario, implement the appropriate network-based security and troubleshoot common connectivity issues.

NEW QUESTION 2

- (Exam Topic 1)

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

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

Answer: C

Explanation:

TCP port 445 is used by the Windows OS for file sharing. It is also known as SMB (Server Message Block) or CIFS (Common Internet File System) and allows users to access files, printers, and other shared resources on a network. References:

<https://docs.microsoft.com/en-us/windows-server/storage/file-server/troubleshoot/detect-enable-and-disable-smb>

NEW QUESTION 3

- (Exam Topic 1)

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

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

Answer: D

Explanation:

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

NEW QUESTION 4

- (Exam Topic 1)

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

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

Answer: B

Explanation:

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

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

NEW QUESTION 5

- (Exam Topic 1)

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

- A. Link Aggregation Control Protocol
- B. Dynamic routing
- C. Quality of service

- D. Network load balancer
- E. Static IP addresses

Answer: C

Explanation:

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

References:

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

NEW QUESTION 6

- (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

Explanation:

Asset tags will allow the technician to record changes to new and old equipment when installing multiple UPS units in a major retail store. Asset tags are labels or stickers that are attached to physical assets such as computers, printers, servers, or UPS units. They usually contain information such as asset name, serial number, barcode, QR code, or RFID chip that can be scanned or read by an asset management system or software. Asset tags help track inventory, location, status, maintenance, and ownership of assets. References: <https://www.camcode.com/asset-tags/asset-tagging-guide/>

NEW QUESTION 7

- (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.

Access control vestibules allow the enforcement of the policy that access to a datacenter should be individually recorded by a card reader even when multiple employees enter the facility at the same time. An access control vestibule is a physical security device that consists of two doors with an interlocking mechanism. Only one door can be opened at a time, and only one person can pass through each door. This prevents tailgating or piggybacking, where unauthorized persons follow authorized persons into a secure area. An access control vestibule can also be integrated with a card reader or other authentication system to record each individual's access. References: <https://www.boonedam.us/blog/what-are-access-control-vestibules>

NEW QUESTION 8

- (Exam Topic 1)

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

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

Answer: C

Explanation:

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

NEW QUESTION 9

- (Exam Topic 1)

A user tries to ping 192.168.1.100 from the command prompt on the 192.168.2.101 network but gets the following response: U.U.U.U. Which of the following needs to be configured for these networks to reach each other?

- A. Network address translation
- B. Default gateway

- C. Loopback
- D. Routing protocol

Answer: B

Explanation:

A default gateway is a device that routes traffic from one network to another network, such as the Internet. A default gateway is usually configured on each host device to specify the IP address of the router that connects the host's network to other networks. In this case, the user's device and the destination device are on different networks (192.168.1.0/24 and 192.168.2.0/24), so the user needs to configure a default gateway on their device to reach the destination device.

References:

[https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-\(2-0\)](https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0)), <https://www.techopedia.com/definition/25761/default-gateway>

NEW QUESTION 10

- (Exam Topic 1)

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

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

Answer: A

Explanation:

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

<https://www.cloudflare.com/learning/dns/dns-records/dns-ttl/>

NEW QUESTION 10

- (Exam Topic 1)

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

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

Answer: B

Explanation:

QSFP+ is a transceiver type that can support up to 40Gbps. It stands for Quad Small Form-factor Pluggable Plus and uses four lanes of data to achieve high-speed transmission. It is commonly used for data center and high-performance computing applications. References:

https://www.cisco.com/c/en/us/products/collateral/interfaces-modules/transceiver-modules/data_sheet_c78-6600

NEW QUESTION 15

- (Exam Topic 1)

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

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

Answer: A

Explanation:

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

NEW QUESTION 18

- (Exam Topic 1)

A technician is searching for a device that is connected to the network and has the device's physical network address. Which of the following should the technician review on the switch to locate the device's network port?

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

Answer: C

Explanation:

To locate a device's network port on a switch, a technician should review the switch's MAC address table. The MAC address table maintains a list of MAC addresses of devices connected to each port on the switch. By checking the MAC address of the device in question, the technician can identify the port to which the device is connected.

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

NEW QUESTION 22

- (Exam Topic 1)

A network administrator is designing a new datacenter in a different region that will need to communicate to the old datacenter with a secure connection. Which of the following access methods would provide the BEST security for this new datacenter?

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

Answer: D

Explanation:

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

NEW QUESTION 26

- (Exam Topic 1)

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

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

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

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

Answer: C

Explanation:

CRC stands for Cyclic Redundancy Check, and it is a type of error-detecting code used to detect accidental changes to raw data. If the CRC count is increasing on a particular interface, it indicates that there might be an issue with the cabling, which is causing data corruption. References:

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

NEW QUESTION 29

- (Exam Topic 1)

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

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

Answer: B

Explanation:

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

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

NEW QUESTION 33

- (Exam Topic 1)

An engineer is configuring redundant network links between switches. Which of the following should the engineer enable to prevent network stability issues?

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

Answer: B

Explanation:

Spanning Tree Protocol (STP) should be enabled when configuring redundant network links between switches. STP ensures that only one active path is used at a time, preventing network loops and stability issues.

References:

> [CompTIA Network+ Certification Study Guide](#)

NEW QUESTION 38

- (Exam Topic 1)

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

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

Answer: A

Explanation:

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

References: [CompTIA Network+ Certification Study Guide, Sixth Edition by Glen E. Clarke](#)

NEW QUESTION 42

- (Exam Topic 1)

A website administrator is concerned the company's static website could be defaced by hackers or used as a pivot point to attack internal systems. Which of the following should a network security administrator recommend to assist with detecting these activities?

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

Answer: A

Explanation:

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

<https://www.tripwire.com/state-of-security/security-data-protection/cyber-security/what-is-file-integrity-monitor>

NEW QUESTION 47

- (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

Explanation:

BGP (Border Gateway Protocol) is a routing protocol used to exchange route information between public autonomous systems (AS). OSPF (Open Shortest Path First), EGRIP (Enhanced Interior Gateway Routing Protocol), and RIP (Routing Information Protocol) are all used for internal routing within a single AS. Therefore, BGP is the correct option to choose for this question.

References:

- > [Network+ N10-007 Certification Exam Objectives, Objective 3.3: Given a scenario, configure and apply the appropriate routing protocol.](#)
- > [Cisco: Border Gateway Protocol \(BGP\) Overview](#)

NEW QUESTION 48

- (Exam Topic 1)

A user reports being unable to access network resources after making some changes in the office. Which of the following should a network technician do FIRST?

- A. Check the system's IP address
- B. Do a ping test against the servers
- C. Reseat the cables into the back of the PC
- D. Ask what changes were made

Answer: D

Explanation:

When a user reports being unable to access network resources after making some changes, the network technician should first ask the user what changes were made. This information can help the technician identify the cause of the issue and determine the appropriate course of action.

References: [CompTIA Network+ Certification Study Guide, Sixth Edition by Glen E. Clarke](#)

NEW QUESTION 52

- (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

Explanation:

A content delivery network (CDN) is a distributed network of servers that delivers web content to users based on their geographic location. By replicating content across multiple servers in various locations, a CDN can optimize speed and reduce latency in high-density user locations.

NEW QUESTION 56

- (Exam Topic 1)

Which of the following BEST describes a network appliance that warns of unapproved devices that are accessing the network?

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

Answer: D

Explanation:

IDS stands for intrusion detection system, which is a network appliance that monitors network traffic and alerts administrators of any suspicious or malicious activity. An IDS can warn of unapproved devices that are accessing the network by detecting anomalies, signatures, or behaviors that indicate unauthorized access attempts or attacks. References:

[https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-\(2-0\)](https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0)), <https://www.cisco.com/c/en/us/products/security/what-is-an-intrusion-detection-system-ids.html>

NEW QUESTION 58

- (Exam Topic 1)

A branch of a company recently switched to a new ISP. The network engineer was given a new IP range to assign. The ISP assigned 196.26.4.0/26, and the branch gateway router now has the following configurations on the interface that peers to the ISP:

```
IP address:      196.26.4.30
Subnet mask:     255.255.255.224
Gateway:        196.24.4.1
```

The network engineer observes that all users have lost Internet connectivity. Which of the following describes the issue?

- A. The incorrect subnet mask was configured
- B. The incorrect gateway was configured
- C. The incorrect IP address was configured
- D. The incorrect interface was configured

Answer: C

Explanation:

The IP address configured on the router interface is 196.26.4.1/26, which belongs to the IP range assigned by the ISP (196.26.4.0/26). However, this IP address is not valid for this interface because it is the network address of the subnet, which cannot be assigned to any host device. The network address is the first address of a subnet that identifies the subnet itself. The valid IP addresses for this subnet are from 196.26.4.1 to 196.26.4.62, excluding the network address (196.26.4.0) and the broadcast address (196.26.4.63). The router interface should be configured with a valid IP address within this range to restore Internet connectivity for all users. References:

[https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-\(2-0\)](https://partners.comptia.org/docs/default-source/resources/comptia-network-n10-008-exam-objectives-(2-0)), <https://www.techopedia.com/definition/24136/network-address>

NEW QUESTION 61

- (Exam Topic 1)

Which of the following systems would MOST likely be found in a screened subnet?

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

Answer: B

Explanation:

FTP (File Transfer Protocol) is a system that would most likely be found in a screened subnet. A screened subnet, or triple-homed firewall, is a network architecture where a single firewall is used with three network interfaces. It provides additional protection from outside cyber attacks by adding a perimeter network to

isolate or separate the internal network from the public-facing internet. A screened subnet typically hosts systems that need to be accessed by both internal and external users, such as web servers, email servers, or FTP servers. References:

<https://www.techtarget.com/searchsecurity/definition/screened-subnet#:~:text=A%20screened%20subnet%2C%1>

NEW QUESTION 66

- (Exam Topic 1)

A network technician needs to ensure outside users are unable to telnet into any of the servers at the datacenter. Which of the following ports should be blocked when checking firewall configuration?

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

Answer: B

Explanation:

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

NEW QUESTION 68

- (Exam Topic 1)

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

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

Answer: A

Explanation:

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

NEW QUESTION 71

- (Exam Topic 1)

A network engineer configured new firewalls with the correct configuration to be deployed to each remote branch. Unneeded services were disabled, and all firewall rules were applied successfully. Which of the following should the network engineer perform NEXT to ensure all the firewalls are hardened successfully?

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

Answer: C

Explanation:

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

NEW QUESTION 75

- (Exam Topic 1)

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

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

Answer: A

Explanation:

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

NEW QUESTION 78

- (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

Explanation:

Decreasing the lease duration on the DHCP server will cause clients to renew their IP address leases more frequently, freeing up IP addresses for other clients to use. References: CompTIA Network+ Certification Study Guide, Chapter 3: IP Addressing.

NEW QUESTION 83

- (Exam Topic 1)

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

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

Answer: C

Explanation:

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

NEW QUESTION 88

- (Exam Topic 2)

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

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

Which of the following methods should the engineer select?

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

Answer: C

Explanation:

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

NEW QUESTION 92

- (Exam Topic 2)

A corporation has a critical system that would cause unrecoverable damage to the brand if it was taken offline. Which of the following disaster recovery solutions should the corporation implement?

- A. Full backups
- B. Load balancing
- C. Hot site
- D. Snapshots

Answer: C

Explanation:

A hot site is the disaster recovery solution that the corporation should implement for its critical system that would cause unrecoverable damage to the brand if it was taken offline. A hot site is a fully operational backup site that can take over the primary site's functions in case of a disaster or disruption. A hot site has all the necessary hardware, software, data, network connections, and personnel to resume normal operations with minimal downtime. A hot site is suitable for systems that require high availability and cannot afford any data loss or interruption. References: <https://www.enterprisestorageforum.com/management/disaster-recovery-site/> 1

NEW QUESTION 95

- (Exam Topic 2)

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

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

Answer: A

Explanation:

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

References:

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

NEW QUESTION 97

- (Exam Topic 2)

There are two managed legacy switches running that cannot be replaced or upgraded. These switches do not support cryptographic functions, but they are password protected. Which of the following should a network administrator configure to BEST prevent unauthorized access?

- A. Enable a management access list
- B. Disable access to unnecessary services.
- C. Configure a stronger password for access
- D. Disable access to remote management
- E. Use an out-of-band access method.

Answer: E

Explanation:

Using an out-of-band access method is the best way to prevent unauthorized access to the legacy switches that do not support cryptographic functions. Out-of-band access is a method of accessing a network device through a dedicated channel that is separate from the main network traffic. Out-of-band access can use physical connections such as serial console ports or dial-up modems, or logical connections such as VPNs or firewalls. Out-of-band access provides more security and reliability than in-band access, which uses the same network as the data traffic and may be vulnerable to attacks or failures. References:

<https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/fundamentals/configuration/15mt/fundamentals-15-mt-book/>

NEW QUESTION 100

- (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

Explanation:

TCP is the protocol type that describes secure communication on port 443. TCP (Transmission Control Protocol) is a connection-oriented protocol that provides reliable and ordered delivery of data packets over an IP network. TCP uses port numbers to identify different applications or services on a device. Port 443 is the default port for HTTPS (Hypertext Transfer Protocol Secure), which is an extension of HTTP that uses SSL (Secure Sockets Layer) or TLS (Transport Layer Security) encryption to protect data in transit between a web server and a web browser. References:

<https://www.cisco.com/c/en/us/support/docs/ip/routing-information-protocol-rip/13788-3.html>

NEW QUESTION 103

- (Exam Topic 2)

Two remote offices need to be connected securely over an untrustworthy MAN. Each office needs to access network shares at the other site. Which of the following will BEST provide this functionality?

- A. Client-to-site VPN
- B. Third-party VPN service
- C. Site-to-site VPN
- D. Split-tunnel VPN

Answer: C

Explanation:

A site-to-site VPN is a type of VPN that connects two or more remote offices securely over an untrustworthy network, such as the Internet. A site-to-site VPN allows each office to access network shares and resources at the other site, as if they were on the same local network. A site-to-site VPN encrypts and tunnels the traffic between the offices, ensuring privacy and integrity of the data. References: <https://www.comptia.org/blog/what-is-a-site-to-site-vpn>

NEW QUESTION 105

- (Exam Topic 2)

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

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

Answer: A

Explanation:

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

NEW QUESTION 107

- (Exam Topic 2)

A network technician is investigating an IP phone that does not register in the VoIP system Although it received an IP address, it did not receive the necessary DHCP options The information that is needed for the registration is distributed by the DHCP scope All other IP phones are working properly. Which of the following does the technician need to verify?

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

Answer: A

Explanation:

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

NEW QUESTION 110

- (Exam Topic 2)

A network administrator is talking to different vendors about acquiring technology to support a new project for a large company. Which of the following documents will MOST likely need to be signed before information about the project is shared?

- A. BYOD policy
- B. NDA
- C. SLA
- D. MOU

Answer: B

Explanation:

NDA stands for Non-Disclosure Agreement, which is a legal contract between two or more parties that outlines confidential material, knowledge, or information that the parties wish to share with one another for certain purposes, but wish to restrict access to by others. A network administrator may need to sign an NDA before sharing information about a new project with different vendors, as the project may involve sensitive or proprietary data that the company wants to protect from competitors or unauthorized use. References: <https://www.adobe.com/sign/esignature-resources/sign-nda.html>

NEW QUESTION 112

- (Exam Topic 2)

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

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

Answer: A

Explanation:

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

NEW QUESTION 114

- (Exam Topic 2)

A technician is troubleshooting a workstation's network connectivity and wants to confirm which switchport corresponds to the wall jack the PC is using Which of the following concepts would BEST help the technician?

- A. Consistent labeling
- B. Change management
- C. Standard work instructions
- D. Inventory management
- E. Network baseline

Answer: A

Explanation:

Consistent labeling would be the concept that would best help the technician to confirm which switchport corresponds to the wall jack the PC is using. Consistent labeling is a practice of using standardized and descriptive labels for network devices, ports, cables, jacks, and other components. It can help with identifying, locating, and troubleshooting network issues. For example, a technician can use consistent labeling to trace a cable from a PC to a wall jack, and then from a patch panel to a switchport. References: https://www.cisco.com/c/en/us/td/docs/solutions/Enterprise/Data_Center/DC_Infra2_5/DCInfra_6.html

NEW QUESTION 115

- (Exam Topic 2)

Given the following output:

```
192.168.22.1    00-13-5d-00-e6-23
192.168.22.15  00-15-88-00-58-00
192.168.22.10  00-13-5d-00-e6-23
192.168.22.100 00-13-5d-00-e6-23
```

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

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

Answer: A

Explanation:

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

NEW QUESTION 118

- (Exam Topic 2)

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

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

Answer: A

Explanation:

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

NEW QUESTION 121

- (Exam Topic 2)

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

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

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

Answer: D

Explanation:

* 172.19.0.2 is a valid IP address configuration for the device that uses a static RFC1918 address for the network and allows for a connection over NAT (Network Address Translation). RFC1918 addresses are private IP addresses that are not routable on the public Internet and are used for internal networks. The RFC1918 address ranges are 10.0.0.0/8, 172.16.0.0/12, and 192.168.0.0/16. NAT is a technique that translates private IP addresses to public IP addresses when communicating with external networks, such as the Internet. FE80::1 is an IPv6 link-local address that is not a static RFC1918 address and does not allow for a connection over NAT. 100.64.1.1 is an IPv4 address that belongs to the shared address space range (100.64.0.0/10) that is used for carrier-grade NAT (CGN) between service providers and subscribers, which is not a static RFC1918 address and does not allow for a connection over NAT. 169.254.1.2 is an IPv4 link-local address that is automatically assigned by a device when it cannot obtain an IP address from a DHCP server or manual configuration, which is not a static RFC1918 address and does not allow for a connection over NAT. 224.0.0.12 is an IPv4 multicast address that is used for VRRP (Virtual Router Redundancy Protocol), which is not a static RFC1918 address and does not allow for a connection over NAT.

NEW QUESTION 126

- (Exam Topic 2)

A network requirement calls for segmenting departments into different networks. The campus network is set up with users of each department in multiple buildings. Which of the following should be configured to keep the design simple and efficient?

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

Answer: C

Explanation:

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

NEW QUESTION 129

- (Exam Topic 2)

Which of the following technologies allows traffic to be sent through two different ISPs to increase performance?

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

Answer: C

Explanation:

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

NEW QUESTION 133

- (Exam Topic 2)

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

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

Answer: B

Explanation:

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

NEW QUESTION 135

- (Exam Topic 2)

A technician is connecting DSL for a new customer. After installing and connecting the on-premises equipment, the technician verifies DSL synchronization. When connecting to a workstation, however, the link LEDs on the workstation and modem do not light up. Which of the following should the technician perform during troubleshooting?

- A. Identify the switching loops between the modem and the workstation.
- B. Check for asymmetrical routing on the modem.
- C. Look for a rogue DHCP server on the network.
- D. Replace the cable connecting the modem and the workstation.

Answer: D

Explanation:

If the link LEDs on the workstation and modem do not light up when connecting to a workstation, it could indicate a problem with the cable connecting them. The cable could be damaged, defective, or incompatible with the devices. A technician should replace the cable with a known good one and check if the link LEDs light up. If not, the problem could be with the network interface cards (NICs) on the workstation or modem. References: <https://www.comptia.org/blog/what-is-link-light>

NEW QUESTION 139

- (Exam Topic 2)

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

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

Answer: C

Explanation:

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

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

NEW QUESTION 143

- (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

Explanation:

The packet shown in the image is an SNMP (Simple Network Management Protocol) packet, which is used to monitor and manage network devices. SNMP uses community strings to authenticate requests and responses between SNMP agents and managers. However, community strings are sent in clear text and can be easily intercepted by attackers. Therefore, one way to secure SNMP traffic is to set a private community string that is not the default or well-known value. Another way to secure SNMP traffic is to use SNMPv3, which is the latest version of the protocol that supports encryption and authentication of SNMP messages.

References: CompTIA Network+ Certification Exam Objectives Version 7.0 (N10-007), Objective 2.5: Given a scenario, use remote access methods.

NEW QUESTION 146

- (Exam Topic 3)

A technician is investigating a misconfiguration on a Layer 3 switch. When the technician logs in and runs a command, the following data is shown:

Which of the following commands generated this output?

- A. show route
- B. show config
- C. show interface
- D. tcpdump
- E. netstat -s

Answer: C

Explanation:

The output shown in the image is from the show interface command, which displays information about the status and configuration of a network interface on a switch or router. The output includes the interface name, description, MAC address, IP address, speed, duplex mode, status, and statistics. The show route command displays the routing table of the device. The show config command displays the current configuration of the device. The tcpdump command captures and analyzes network traffic. The netstat -s command displays statistics for each protocol.

References: CompTIA Network+ Certification Exam Objectives Version 7.0 (N10-007), Objective 2.4: Given a scenario, use appropriate software tools to troubleshoot connectivity issues.

NEW QUESTION 151

- (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 154

- (Exam Topic 3)

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

- A. Multitenancy
- B. IaaS
- C. SaaS
- D. VPN

Answer: C

Explanation:

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

References: CompTIA Network+ Certification Exam Objectives Version 7.0 (N10-007), Objective 1.9: Compare and contrast common network service types.

NEW QUESTION 157

- (Exam Topic 3)

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

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

Answer: A

Explanation:

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

NEW QUESTION 161

- (Exam Topic 3)

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

- A. 22
- B. 23
- C. 69
- D. 443
- E. 587
- F. 8080

Answer: BC

NEW QUESTION 166

- (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 167

- (Exam Topic 3)

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

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

Answer: D

Explanation:

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

NEW QUESTION 171

- (Exam Topic 3)

A technician thinks one of the router ports is flapping. Which of the following available resources should the technician use in order to determine if the router is flapping?

- A. Audit logs
- B. NetFlow
- C. Syslog
- D. Traffic logs

Answer: C

Explanation:

Syslog is a protocol that allows network devices to send event messages to a centralized server or console for logging and analysis¹. Syslog can help a technician to determine if a router port is flapping by providing timestamps, severity levels, and descriptions of the events that occur on the router, such as interface up or down, link state change, or error messages. Syslog can also help to identify the cause and frequency of the port flapping and troubleshoot the issue.

Audit logs are records of actions or events that occur on a system or network, such as user login, file access, configuration change, or policy violation. Audit logs can help to monitor and verify the activities and behaviors of users, devices, or applications on a system or network. Audit logs can also help to detect and investigate security incidents, compliance issues, or performance problems. However, audit logs do not provide detailed information about router port flapping.

NetFlow is a protocol that collects and analyzes network traffic data for monitoring and troubleshooting purposes². NetFlow can help to identify the sources, destinations, volumes, and types of traffic on a network. NetFlow can also help to optimize network performance, security, and capacity planning. However, NetFlow does not provide detailed information about router port flapping.

Traffic logs are records of network traffic that pass through a device or application, such as a firewall, proxy, or web server. Traffic logs can help to monitor and filter the network traffic based on rules or policies. Traffic logs can also help to detect and prevent malicious traffic, such as malware, attacks, or unauthorized access. However, traffic logs do not provide detailed information about router port flapping.

NEW QUESTION 175

- (Exam Topic 3)

An administrator is attempting to add a new system to monitoring but is unsuccessful. The administrator notices the system is similar to another one on the network; however, the new one has an updated OS version. Which of the following should the administrator consider updating?

- A. Management information bases
- B. System baseline
- C. Network device logs
- D. SNMP traps

Answer: A

NEW QUESTION 177

- (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 179

- (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 180

- (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 185

- (Exam Topic 3)

Which of the following can be used to limit the ability of devices to perform only HTTPS connections to an internet update server without exposing the devices to the public internet?

- A. Allow connections only to an internal proxy server.
- B. Deploy an IDS system and place it in line with the traffic.
- C. Create a screened network and move the devices to it.

D. Use a host-based network firewall on each device.

Answer: A

Explanation:

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

NEW QUESTION 188

- (Exam Topic 3)

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

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

Answer: D

Explanation:

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

NEW QUESTION 193

- (Exam Topic 3)

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

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

Answer: D

Explanation:

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

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

NEW QUESTION 194

- (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 197

- (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 202

- (Exam Topic 3)

An administrator would like to create a fault-tolerant ring between three switches within a Layer 2 network. Which of the following Ethernet features should the administrator employ?

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

Answer: A

Explanation:

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

NEW QUESTION 206

- (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 209

- (Exam Topic 3)

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

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

Answer: B

NEW QUESTION 211

- (Exam Topic 3)

A network is secured and is only accessible via TLS and IPSec VPNs. Which of the following would need to be present to allow a user to access network resources on a laptop without logging in to the VPN application?

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

Answer: A

Explanation:

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

NEW QUESTION 212

- (Exam Topic 3)

Users within a corporate network need to connect to the Internet, but corporate network policy does not allow direct connections. Which of the following is MOST likely to be used?

- A. Proxy server
- B. VPN client
- C. Bridge
- D. VLAN

Answer: A

NEW QUESTION 215

- (Exam Topic 3)

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

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

Answer: B

Explanation:

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

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

NEW QUESTION 217

- (Exam Topic 3)

Which of the following describes the ability of a corporate IT department to expand its cloud-hosted VM environment with minimal effort?

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

Answer: A

Explanation:

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

NEW QUESTION 221

- (Exam Topic 3)

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

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

Answer: C

NEW QUESTION 223

- (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 228

- (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 229

- (Exam Topic 3)

Which of the following bandwidth management techniques uses buffers at the client side to prevent TCP retransmissions from occurring when the ISP starts to drop packets of specific types that exceed the agreed traffic rate?

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

Answer: D

NEW QUESTION 233

- (Exam Topic 3)

A technician is trying to determine whether an LACP bundle is fully operational. Which of the following commands will the technician MOST likely use?

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

Answer: A

Explanation:

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

NEW QUESTION 234

- (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 237

- (Exam Topic 3)

Which of the following is an advanced distance vector routing protocol that automates routing tables and also uses some features of link-state routing protocols?

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

Answer: C

Explanation:

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

NEW QUESTION 242

- (Exam Topic 3)

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

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

Answer: A

NEW QUESTION 243

- (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 245

- (Exam Topic 3)

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

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

Answer: A

Explanation:

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

NEW QUESTION 249

- (Exam Topic 3)

A network engineer needs to create a subnet that has the capacity for five VLANs. with the following number of clients to be allowed on each:

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

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

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

Answer: B

NEW QUESTION 254

- (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 259

- (Exam Topic 3)

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

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

Answer: A

Explanation:

Interference is a phenomenon that occurs when unwanted signals or noise affect the transmission or reception of data signals on a network. Interference can cause network issues such as high latency, low throughput, packet loss, or errors. Interference can be caused by various sources, such as electromagnetic fields,

radio waves, power lines, or electrical devices. In this scenario, the three-phase motor installation is a source of interference that affects the Cat 6 cable that connects the AP to the access switch. The cable is wired through a duct close to the motor installation, which exposes it to the electromagnetic fields generated by the motor. Anytime the motor is turned on, the interference causes high latency for all users connected to the switch.

NEW QUESTION 260

- (Exam Topic 3)

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

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

Answer: D

Explanation:

A cable tester is a tool that can verify the integrity and functionality of a network cable. It can measure the electrical characteristics of the cable, such as resistance, capacitance, and impedance, and detect any faults or defects, such as shorts, opens, or crosstalk. A cable tester can help the network administrator troubleshoot the problem by determining if the cable is faulty or not. A tone generator is a tool that can send an audible signal through a cable to help locate and identify it. A multimeter is a tool that can measure voltage, current, and resistance of electrical circuits. An optical time-domain reflectometer (OTDR) is a tool that can test the quality and length of fiber optic cables.

References: CompTIA Network+ Certification Exam Objectives Version 7.0 (N10-007), Objective 2.3: Given a scenario, use the appropriate tool to support wired or wireless networks.

NEW QUESTION 263

- (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 265

- (Exam Topic 3)

A desktop support department has observed slow wireless speeds for a new line of laptops using the organization's standard image. No other devices have experienced the same issue. Which of the following should the network administrator recommend troubleshooting FIRST to resolve this issue?

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

Answer: D

Explanation:

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

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

NEW QUESTION 269

- (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/dhccpfg.html>

NEW QUESTION 272

- (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 275

- (Exam Topic 3)

The lack of a formal process to grant network permissions to different profiles of employees and contractors is leading to an increasing number of security incidents. Non-uniform and overly permissive network accesses are being granted. Which of the following would be the MOST appropriate method to improve the security of the environment?

- A. Change the default permissions to implicit deny
- B. Configure uniform ACLs to employees and NAC for contractors.
- C. Deploy an RDP server to centralize the access to the network
- D. Implement role-based access control

Answer: D

Explanation:

The most appropriate method to improve the security of the environment would be to implement role-based access control (RBAC). With RBAC, users are granted access to the network based on their role within the organization. This allows for more granular access control, as different roles may require different levels of access. Additionally, this ensures that users only have access to the resources they need and no more. This helps to reduce the risk of unauthorized access or misuse of the network. References and further information can be found in the CompTIA Network+ Study Manual, Chapter 8, Access Control.

RBAC is a method of restricting network access based on the roles of individual users within the organization. With RBAC, users are granted access only to the resources they need to perform their specific job functions. This approach reduces the risk of unauthorized access, provides greater visibility into user activity, and simplifies network management.

Changing the default permissions to implicit deny may improve security, but it could also cause issues for legitimate users who require access to specific resources. Configuring uniform ACLs and NAC for contractors is a step in the right direction, but it may not be enough to address the overall lack of a formal process for granting network permissions. Deploying an RDP server to centralize access to the network is not a viable solution, as it would not address the root cause of the security incidents.

Therefore, the most appropriate option is to implement role-based access control. Reference: CompTIA Network+ Study Guide, Fourth Edition, Chapter 7, section 7.4.

NEW QUESTION 277

- (Exam Topic 3)

A device is connected to a managed Layer 3 network switch. The MAC address of the device is known, but the static IP address assigned to the device is not. Which of the following features of a Layer 3 network switch should be used to determine the IPv4 address of the device?

- A. MAC table
- B. Neighbor Discovery Protocol
- C. ARP table
- D. IPConfig
- E. ACL table

Answer: C

Explanation:

The ARP table is a database that is used by a device to map MAC addresses to their corresponding IP addresses. When a device sends a packet to another device on the same network, it uses the MAC address of the destination device to deliver the packet. The ARP table allows the device to determine the IP address of the destination device based on its MAC address.

NEW QUESTION 278

- (Exam Topic 3)

During the troubleshooting of an E1 line, the point-to-point link on the core router was accidentally unplugged and left unconnected for several hours. However, the network management team was not notified. Which of the following could have been configured to allow early detection and possible resolution of the issue?

- A. Traps
- B. MIB
- C. OID
- D. Baselines

Answer: A

Explanation:

Traps are unsolicited messages sent by network devices to a network management system (NMS) when an event or a change in status occurs. Traps can help notify the network management team of any issues or problems on the network, such as a link failure or a device reboot. Traps can also trigger actions or alerts on the NMS, such as sending an email or logging the event. MIB stands for Management Information Base and is a database of information that can be accessed and managed by an NMS using SNMP (Simple Network Management Protocol). OID stands for Object Identifier and is a unique name that identifies a specific variable in the MIB. Baselines are measurements of normal network performance and behavior that can be used for comparison and analysis.

References: CompTIA Network+ Certification Exam Objectives Version 7.0 (N10-007), Objective 2.5: Given a scenario, use remote access methods.

NEW QUESTION 280

- (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 283

- (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: BF

NEW QUESTION 286

- (Exam Topic 3)

A company is utilizing multifactor authentication for data center access. Which of the following is the MOST effective security mechanism against physical intrusions due to stolen credentials?

- A. Biometrics security hardware
- B. Access card readers
- C. Access control vestibule
- D. Motion detection cameras

Answer: C

NEW QUESTION 289

- (Exam Topic 3)

A network engineer is investigating reports of poor network performance. Upon reviewing a report, the engineer finds hundreds of CRC errors on an interface. Which of the following is the MOST likely cause of these errors?

- A. A bad wire on the Cat 5e cable
- B. The wrong VLAN assignment to the switchport
- C. A misconfigured QoS setting on the router
- D. Both sides of the switch trunk set to full duplex

Answer: A

NEW QUESTION 293

- (Exam Topic 3)

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

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

Answer: B

Explanation:

Traffic policing is a mechanism that monitors the traffic in any network and enforces a bandwidth limit by discarding packets that exceed a certain rate¹. This can reduce congestion and ensure fair allocation of bandwidth among different applications or users. However, discarding packets can also affect the performance and quality of some applications, especially those that are sensitive to packet loss, such as voice or video.

Traffic shaping is a congestion control mechanism that delays packets that exceed a certain rate instead of discarding them¹. This can smooth out traffic bursts and avoid packet loss, but it also introduces latency and jitter. Traffic shaping can be beneficial for applications that can tolerate some delay but not packet loss, such as file transfers or streaming.

Traffic marking is a mechanism that assigns different priority levels to packets based on their type, source, destination, or other criteria². This can help to differentiate between different classes of service and apply different policies or treatments to them. However, traffic marking does not enforce bandwidth limits by itself; it only provides information for other mechanisms to act upon.

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

NEW QUESTION 295

- (Exam Topic 3)

A technician is configuring a wireless network and needs to ensure users agree to an AUP before connecting. Which of the following should be implemented to achieve this goal?

- A. Captive portal
- B. Geofencing
- C. Wireless client isolation
- D. Role-based access

Answer: A

NEW QUESTION 296

- (Exam Topic 3)

A security engineer is trying to determine whether an internal server was accessed by hosts on the internet. The internal server was shut down during the investigation. Which of the following will the engineer review to determine whether the internal server had an unauthorized access attempt?

- A. The server's syslog
- B. The NetFlow statistics
- C. The firewall logs
- D. The audit logs on the core switch

Answer: A

NEW QUESTION 297

- (Exam Topic 3)

Which of the following uses the link-state routing algorithm and operates within a single autonomous system?

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

Answer: B

Explanation:

OSPF uses a link state routing algorithm and falls into the group of interior routing protocols, operating within a single autonomous system (AS). OSPF is perhaps the most widely used interior gateway protocol (IGP) in large enterprise networks

NEW QUESTION 302

- (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 306

- (Exam Topic 3)

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

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

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

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

Answer: A

Explanation:

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

NEW QUESTION 310

- (Exam Topic 3)

Several users with older devices are reporting intermittent connectivity while in an outdoor patio area. After some research, the network administrator determines that an outdoor WAP might help with the issue. However, the company does not want the signal to bleed into the building and cause interference. Which of the following should the network administrator perform to BEST resolve the issue?

- A. Disable the SSID broadcast on the WAP in the patio area.
- B. Install a WAP and enable 5GHz only within the patio area.
- C. Install a directional WAP in the direction of the patio.
- D. Install a repeater on the back wall of the patio area.

Answer: C

NEW QUESTION 315

- (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 320

- (Exam Topic 3)

A network administrator is troubleshooting a connectivity performance issue. As part of the troubleshooting process, the administrator performs a traceout from the client to the server, and also from the server to the client. While comparing the outputs, the administrator notes they show different hops between the hosts. Which of the following BEST explains these findings?

- A. Asymmetric routing
- B. A routing loop
- C. A switch loop
- D. An incorrect gateway

Answer: C

NEW QUESTION 321

- (Exam Topic 3)

A network engineer developed a plan of action to resolve an ongoing issue. Which of the following steps should the engineer take NEXT?

- A. Verify full system functionality and implement preventative measures.
- B. Implement the solution to resolve the problem.
- C. Document findings, actions, outcomes, and lessons learned.
- D. Establish a theory of probable cause.

Answer: B

Explanation:

Network troubleshooting is a repeatable process, which means that you can break it down into clear steps that anyone can follow. Identify the Problem. ... Develop a Theory. ... Test the Theory. ... Plan of Action. ...

Implement the Solution. ... Verify System Functionality. ... Document the Issue.

Theory of probable cause is before Plan of action. <https://www.comptia.org/content/guides/a-guide-to-network-troubleshooting>

NEW QUESTION 323

- (Exam Topic 3)

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

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

Answer: B

Explanation:

A SAN also employs a series of protocols enabling software to communicate or prepare data for storage. The most common protocol is the Fibre Channel Protocol (FCP), which maps SCSI commands over FC technology. The iSCSI SANs will employ an iSCSI protocol that maps SCSI commands over TCP/IP. STP (Spanning Tree Protocol) is a protocol used to prevent loops in Ethernet networks, and it is not a medium for communication in a storage area network (SAN). However, Fibre Channel is a protocol that is specifically designed for high-speed data transfer in SAN environments. It is a dedicated channel technology that provides high throughput and low latency, making it ideal for SANs. Therefore, Fibre Channel would be the best protocol for the company to use for its SAN. SFTP (Secure File Transfer Protocol), iSCSI (Internet Small Computer System Interface), and FTP (File Transfer Protocol) are protocols used for transferring files over a network and are not suitable for use in a SAN environment.

NEW QUESTION 324

- (Exam Topic 3)

A technician is troubleshooting a connectivity issue with an end user. The end user can access local network shares and intranet pages but is unable to access the internet or remote resources. Which of the following needs to be reconfigured?

- A. The IP address
- B. The subnet mask
- C. The gateway address
- D. The DNS servers

Answer: C

NEW QUESTION 328

- (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 331

- (Exam Topic 3)

An organization is interested in purchasing a backup solution that supports the organization's goals. Which of the following concepts would specify the maximum duration that a given service can be down before impacting operations?

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

Answer: B

Explanation:

The maximum duration that a given service can be down before it impacts operations is often referred to as the Recovery Time Objective (RTO). RTO is a key consideration in any backup and disaster recovery plan, as it determines how quickly the organization needs to be able to recover from a disruption or failure. It is typically expressed in terms of time, and it helps to inform the design and implementation of the backup solution. For example, if an organization has a critical service that must be available 24/7, it may have a very low RTO, requiring that the service be restored within a matter of minutes or even seconds. On the other hand, if the service can be down for a longer period of time without significantly impacting operations, the organization may have a higher RTO. When selecting a backup solution, it is important to consider the organization's RTO requirements and ensure that the solution is capable of meeting those needs. A solution that does not meet the organization's RTO requirements may not be sufficient to ensure the availability of critical services in the event of a disruption or failure.

NEW QUESTION 336

- (Exam Topic 3)

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

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

Answer: A

NEW QUESTION 339

- (Exam Topic 3)

An organization would like to implement a disaster recovery strategy that does not require a facility agreement or idle hardware. Which of the following strategies MOST likely meets the organization's requirements?

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

Answer: A

Explanation:

A cloud site is a type of disaster recovery site that uses cloud computing services to provide backup and recovery of data and applications in the event of a disaster¹. A cloud site does not require a facility agreement or idle hardware, as the cloud provider manages the infrastructure and resources on demand. A cloud site can also offer scalability, flexibility, and cost-effectiveness compared to other types of disaster recovery sites.

NEW QUESTION 342

- (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 343

- (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 344

- (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 345

- (Exam Topic 3)

Which of the following documents would be used to define uptime commitments from a provider, along with details on measurement and enforcement?

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

Answer: B

Explanation:

A service level agreement (SLA) is a document that is used to define uptime commitments from a provider, along with details on measurement and enforcement. An SLA is a contract between a service provider and a customer that outlines the level of service that the provider is committed to providing and the terms under which that service will be delivered.

NEW QUESTION 346

- (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 351

- (Exam Topic 3)

A network engineer is designing a wireless network that has the following requirements:

- Network speed must be higher than 100Mbps
- Must use the 2.4GHz and 5GHz bands

Which of the following 802.11 standards should the engineer select?

- A. 802.11a
- B. 802.11b
- C. 802.11g
- D. 802.11n

Answer: D

Explanation:

* 802.11n is a wireless standard that supports up to 600 Mbps data rate and operates in both the 2.4 GHz and 5 GHz frequency bands. 802.11n uses multiple-input multiple-output (MIMO) technology to increase the number of spatial streams and improve the wireless performance and range. 802.11n meets the requirements of the wireless network design.

References: Network+ Study Guide Objective 1.6: Explain the functions of network services.

NEW QUESTION 352

- (Exam Topic 3)

A corporate client is experiencing global system outages. The IT team has identified multiple potential underlying causes throughout the enterprise. Each team member has been assigned an area to trouble shoot. Which of the following approaches is being used?

- A. Divide-and-conquer
- B. Top-to-bottom
- C. Bottom-to-top
- D. Determine if anything changed

Answer: A

NEW QUESTION 355

- (Exam Topic 3)

An office area contains two PoE-enabled WAPs. After the area was remodeled, new cable uplinks were installed in the ceiling above the fluorescent lights.

However, after the WAPs were reconnected, users reported slowness and application errors. An intern reviewed the network and discovered a lot of CRC errors. A network engineer reviewed the intern's work and realized UTP cabling was used. Which of the following is the MOST likely cause of the CRC errors?

- A. Insufficient power at the antennas
- B. PoE and UTP incompatibility
- C. Electromagnetic interference
- D. Wrong cable pinout

Answer: C

Explanation:

"EMI is a problem when cables are installed near electrical devices, such as air conditioners or fluorescent light fixtures. If a network medium is placed close enough to such a device, the signal within the cable might become corrupt. Network media vary in their resistance to the effects of EMI. Standard unshielded twisted-pair (UTP) cable is susceptible to EMI, whereas fiber cable, with its light transmissions, is resistant to EMI. When deciding on a particular medium, consider where it will run and the impact EMI can have on the installation."

NEW QUESTION 359

- (Exam Topic 3)

Network users reported that a recent firmware upgrade to a firewall did not resolve the issue that prompted the upgrade. Which of the following should be performed NEXT?

- A. Reopen the service ticket, request a new maintenance window, and roll back to the anterior firmware version.
- B. Gather additional information to ensure users' concerns are not been caused by a different issue with similar symptoms.
- C. Employ a divide-and-conquer troubleshooting methodology by engaging the firewall vendor's support.
- D. Escalate the issue to the IT management team in order to negotiate a new SLA with the user's manager.

Answer: B

Explanation:

Before taking any further action, it is important to verify that the problem reported by the users is the same as the one that prompted the firmware upgrade. It is possible that the firmware upgrade did resolve the original issue, but a new or different issue has arisen with similar symptoms. By gathering additional information from the users, such as error messages, screenshots, logs, or network traces, the technician can confirm or rule out this possibility and avoid wasting time and resources on unnecessary steps.

Reopening the service ticket, requesting a new maintenance window, and rolling back to the anterior firmware version (A) is a possible option if the firmware upgrade did not resolve the original issue and caused more problems. However, this should not be done without first verifying that the users' concerns are related to the firmware upgrade and not a different issue.

Employing a divide-and-conquer troubleshooting methodology by engaging the firewall vendor's support © is another possible option if the technician needs assistance from the vendor to diagnose or resolve the issue. However, this should also not be done without first gathering additional information from the users to narrow down the scope of the problem and provide relevant details to the vendor.

Escalating the issue to the IT management team in order to negotiate a new SLA with the user's manager (D) is not a relevant option at this stage. An SLA (Service Level Agreement) is a contract that defines the expectations and responsibilities of both parties in terms of service quality, availability, performance, and response time. Negotiating a new SLA does not address the root cause of the issue or help to resolve it. Moreover, escalating an issue to management should only be done when all other options have been exhausted or when there is a significant impact or risk to the business.

NEW QUESTION 360

- (Exam Topic 3)

A network administrator is creating a subnet for a remote office that has 53 network devices. An additional requirement is to use the most efficient subnet. Which of the following CIDR notations indicates the appropriate number of IP addresses with the LEAST amount of unused addresses? (Choose Correct option and give explanation directly from CompTIA Network+ Study guide or documents)

- A. /24
- B. /26
- C. /28
- D. /32

Answer: B

Explanation:

This CIDR notation indicates that there are 64 IP addresses, of which 62 are usable for network devices. This provides the LEAST amount of unused addresses, making it the most efficient subnet for a remote office with 53 network devices. According to the CompTIA Network+ Study Guide, "Subnetting allows you to divide one large network into smaller, more manageable networks or subnets."

NEW QUESTION 364

- (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 367

- (Exam Topic 3)

A network administrator is decommissioning a server. Which of the following will the network administrator MOST likely consult?

- A. Onboarding and off boarding policies
- B. Business continuity plan
- C. Password requirements
- D. Change management documentation

Answer: D

NEW QUESTION 372

- (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 375

- (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 376

- (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: B

Explanation:

Humidity is the amount of water vapor in the air. High humidity can cause corrosion, condensation, and short circuits in electronic devices. Low humidity can cause static electricity and damage sensitive components. The optimal humidity range for a data center is between 40% and 60%. Based on the report, the humidity level in the server room is 70%, which is too high and can affect the performance and reliability of the network equipment. Therefore, the best recommendation to the client is to install a humidity sensor and a dehumidifier to control the humidity level in the server room.

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

NEW QUESTION 380

- (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 383

- (Exam Topic 3)

An employee reports to a network administrator that internet access is not working. Which of the following should the administrator do FIRST?

- A. Establish a theory of probable cause.
- B. Identify symptoms.
- C. Determine if anything has changed.
- D. Ask the user to restart the computer.

Answer: C

Explanation:

When a user reports that internet access is not working, it is important to first determine if there have been any recent changes to the network or the user's computer that could have caused the issue. This could include changes to the network configuration, the installation of new software or hardware, or other events that could have impacted the user's ability to access the internet. By determining if anything has changed, the administrator can narrow down the possible causes of the issue and focus on addressing the most likely cause.

NEW QUESTION 384

- (Exam Topic 3)

During an annual review of policy documents, a company decided to adjust its recovery time frames. The company agreed that critical applications can be down for no more than six hours, and the acceptable amount of data loss is no more than two hours. Which of the following should be documented as the RPO?

- A. Two hours
- B. Four hours
- C. Six hours
- D. Eight hours

Answer: A

Explanation:

"RPO designates the variable amount of data that will be lost or will have to be re-entered during network downtime. RTO designates the amount of "real time" that can pass before the disruption begins to seriously and unacceptably impede the flow of normal business operations."

NEW QUESTION 387

- (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 388

- (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 391

- (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 392

- (Exam Topic 3)

A store owner would like to have secure wireless access available for both business equipment and patron use. Which of the following features should be configured to allow different wireless access through the same equipment?

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

Answer: D

Explanation:

SSID stands for Service Set Identifier and is the name of a wireless network. A wireless access point (WAP) can support multiple SSIDs, which allows different wireless access through the same equipment. For example, the store owner can create one SSID for business equipment and another SSID for patron use, and assign different security settings and bandwidth limits for each SSID. MIMO stands for Multiple Input Multiple Output and is a technology that uses multiple antennas to improve wireless performance. TKIP stands for Temporal Key Integrity Protocol and is an encryption method for wireless networks. LTE stands for Long Term Evolution and is a cellular network technology.

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

NEW QUESTION 395

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