

Cisco

Exam Questions 200-301

Cisco Certified Network Associate



NEW QUESTION 1

- (Topic 3)

Refer to the exhibit.

<pre>Switch#show ip dhcp snooping Switch DHCP snooping is enabled Switch DHCP gleaning is disabled DHCP snooping is configured on following VLANs: 1 DHCP snooping is operational on following VLANs: 1 DHCP snooping is configured on the following L3 Interfaces: Insertion of option 82 is disabled circuit-id default format: vlan-mod-port remote-id: aabb.cc00.6500 (MAC) Option 82 on untrusted port is not allowed Verification of hwaddr field is enabled Verification of giaddr field is enabled DHCP snooping trust/rate is configured on the following Interfaces: Interface Trusted Allow option Rate limit (pps)</pre>	<pre>Switch#show ip dhcp snooping statistics detail Packets Processed by DHCP Snooping = 34 Packets Dropped Because IDB not known = 0 Queue full = 0 Interface is in errdisabled = 0 Rate limit exceeded = 0 Received on untrusted ports = 32 Nonzero giaddr = 0 Source mac not equal to chaddr = 0 No binding entry = 0 Insertion of opt82 fail = 0 Unknown packet = 0 Interface Down = 0 Unknown output interface = 0 Misdirected Packets = 0 Packets with Invalid Size = 0 Packets with Invalid Option = 0</pre>
--	---

The DHCP server and clients are connected to the same switch. What is the next step to complete the DHCP configuration to allow clients on VLAN 1 to receive addresses from the DHCP server?

- A. Configure the ip dhcp snooping trust command on the interlace that is connected to the DHCP client.
- B. Configure the ip dhcp relay information option command on the interface that is connected to the DHCP client.
- C. Configure the ip dhcp snooping trust command on the interface that is connected to the DHCP server.
- D. Configure the Ip dhcp relay information option command on the interface that is connected to the DHCP server.

Answer: C

NEW QUESTION 2

- (Topic 3)

R1 as an NTP server must have:

- NTP authentication enabled
- NTP packets sourced from Interface loopback 0
- NTP stratum 2
- NTP packets only permitted to client IP 209.165.200.225

How should R1 be configured?

A)

```
ntp authenticate
ntp authentication-key 2 md5 CISCO123
ntp source Loopback0
nntp access-group server-only 10
ntp master 2
!
access-list 10 permit 209.165.200.225
```

B)

```
ntp authenticate
ntp authentication-key 2 md5 CISCO123
ntp source Loopback0
ntp access-group server-only 10
ntp stratum 2
!
access-list 10 permit udp host 209.165.200.225 any eq 123
```

C)

```
ntp authenticate
ntp authentication-key 2 sha1 CISCO123
ntp source Loopback0
ntp access-group server-only 10
ntp master 2
!
access-list 10 permit udp host 209.165.200.225 any eq 123
```

D)

```
ntp authenticate
ntp authentication-key 2 md5 CISCO123
ntp interface Loopback0
ntp access-aroup server-only 10
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

NEW QUESTION 3

- (Topic 3)

Which value is the unique identifier that an access point uses to establish and maintain wireless connectivity to wireless network devices?

- A. VLANID

- B. SSID
- C. RFID
- D. WLANID

Answer: B

NEW QUESTION 4

- (Topic 3)

Which protocol is used for secure remote CLI access?

- A. HTTPS
- B. HTTP
- C. Telnet
- D. SSH

Answer: D

NEW QUESTION 5

DRAG DROP - (Topic 3)

Drag and drop the descriptions of AAA services from the left onto the corresponding services on the right.

allows the user to change to enable mode	Accounting
limits the user's access permissions	
logs session statistics	Authentication
records user commands	
secures access to routers	Authorization
validates user credentials	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

allows the user to change to enable mode	Accounting
limits the user's access permissions	records user commands
logs session statistics	logs session statistics
records user commands	Authentication
secures access to routers	validates user credentials
validates user credentials	allows the user to change to enable mode
	Authorization
	limits the user's access permissions
	secures access to routers

NEW QUESTION 6

- (Topic 3)

A network engineer is installing an IPv6-only capable device. The client has requested that the device IP address be reachable only from the internal network. Which type of IPv6 address must the engineer assign?

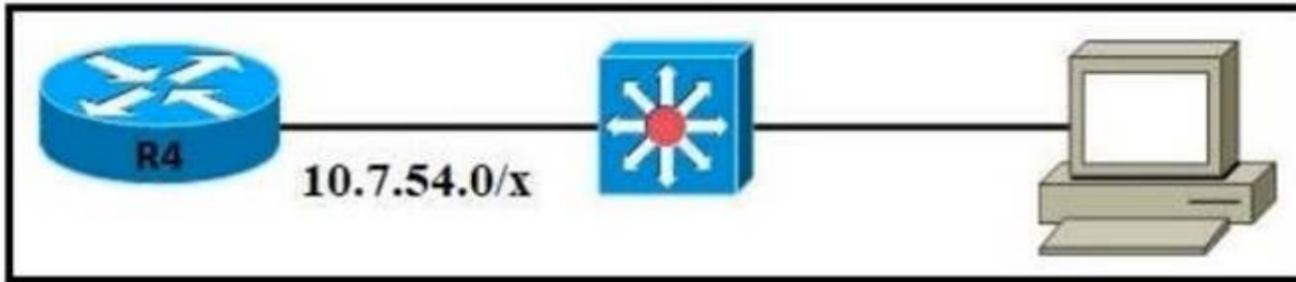
- A. unique local address
- B. link-local address
- C. aggregatable global address
- D. IPv4-compatible IPv6 address

Answer: B

NEW QUESTION 7

- (Topic 3)

Refer to the exhibit.



The router has been configured with a supernet to accommodate the requirement for 380 users on a subnet. The requirement already considers 30% future growth. Which configuration verifies the IP subnet on router R4?

- A)
 - Subnet: 10.7.54.0
 - Subnet mask: 255.255.254.0
 - Broadcast address: 10.7.54.255
 - Usable IP address range: 10.7.54.1 - 10.7.55.254
- B)
 - Subnet: 10.7.54.0
 - Subnet mask: 255.255.254.0
 - Broadcast address: 10.7.55.255
 - Usable IP address range: 10.7.54.1 - 10.7.55.254
- C)
 - Subnet: 10.7.54.0
 - Subnet mask: 255.255.128.0
 - Broadcast address: 10.7.55.255
 - Usable IP address range: 10.7.54.1 - 10.7.55.254
- D)
 - Subnet: 10.7.54.0
 - Subnet mask: 255.255.255.0
 - Broadcast address: 10.7.54.255
 - Usable IP address range: 10.7.54.1 - 10.7.55.254

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

NEW QUESTION 8

DRAG DROP - (Topic 3)

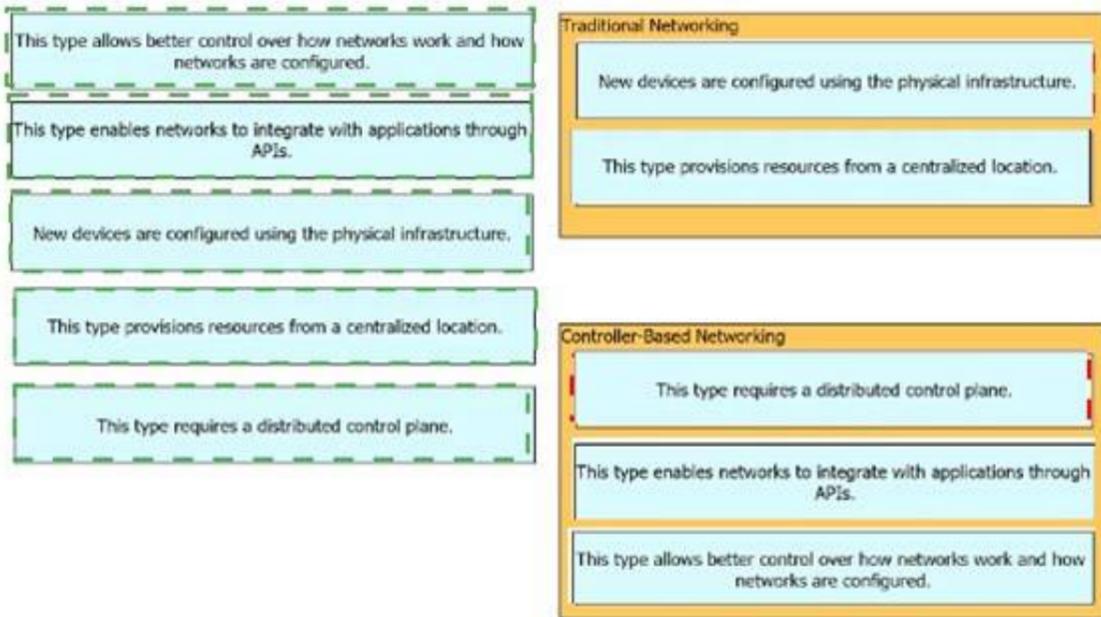
Drag and drop the statements about networking from the left onto the corresponding networking types on the right.

This type allows better control over how networks work and how networks are configured.	Traditional Networking <div style="border: 1px solid #ccc; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid #ccc; height: 20px; margin-bottom: 5px;"></div>
This type enables networks to integrate with applications through APIs.	
New devices are configured using the physical infrastructure.	
This type provisions resources from a centralized location.	Controller-Based Networking <div style="border: 1px solid #ccc; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid #ccc; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid #ccc; height: 20px; margin-bottom: 5px;"></div>
This type requires a distributed control plane.	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 9

- (Topic 3)

Which two components comprise part of a PKI? (Choose two.)

- A. preshared key that authenticates connections
- B. RSA token
- C. CA that grants certificates
- D. clear-text password that authenticates connections
- E. one or more CRLs

Answer: BC

NEW QUESTION 10

- (Topic 3)

Refer to the exhibit.

```
Hardware is ISR4331-3x1GE, address is 5486.bc25.1f70 (bia 5486.bc25.1f70)
Description: << WAN Link >>
Internet address is 192.0.2.2/30
MTU 1500 bytes, BW 1000000 Kbit/sec, DLY 10 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive not supported
Full Duplex, 1000Mbps, link type is auto, media type is RJ45
output flow-control is off, input flow-control is off
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:00, output 00:00:11, output hang never
Last clearing of "show interface" counters never
Input queue: 0/375/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 7000 bits/sec, 4 packets/sec
5 minute output rate 4000 bits/sec, 4 packets/sec
  22579370 packets input, 8825545968 bytes, 0 no buffer
  Received 67 broadcasts (0 IP multicasts)
  0 runts, 0 giants, 0 throttles
  3612699 input errors, 3612699 CRC, 0 frame, 0 overrun, 0 ignored
  0 watchdog, 10747057 multicast, 0 pause input
  12072167 packets output, 1697953637 bytes, 0 underruns
  0 output errors, 0 collisions, 1 interface resets
  6 unknown protocol drops
  0 babbles, 0 late collision, 0 deferred
  5 lost carrier, 0 no carrier, 0 pause output
  0 output buffer failures, 0 output buffers swapped out
```

What is a reason for poor performance on the network interface?

- A. The interface is receiving excessive broadcast traffic.
- B. The cable connection between the two devices is faulty.
- C. The interface is operating at a different speed than the connected device.
- D. The bandwidth setting of the interface is misconfigured

Answer: A

NEW QUESTION 10

FILL IN THE BLANK - (Topic 3)

Refer to the exhibit.

```

209.165.201.0/27 is subnetted, 1 subnets
B 209.165.201.0 [20/0] via 10.10.12.2, 02:26:33
209.165.202.0/27 is subnetted, 1 subnets
B 209.165.202.128 [20/0] via 10.10.12.2, 02:26:03
10.0.0.0/8 is variably subnetted, 8 subnets, 4 masks
C 10.10.10.0/28 is directly connected, GigabitEthernet0/0
C 10.10.11.0/30 is directly connected, FastEthernet2/0
C 10.10.12.0/30 is directly connected, GigabitEthernet0/1
O 10.10.13.0/25 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
O 10.10.13.128/28 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
O 10.10.13.144/28 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
O 10.10.13.160/29 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
O 10.10.13.208/29 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
S* 0.0.0.0/0 [1/0] via 10.10.11.2
    
```

Drag and drop the prefix lengths from the left onto the corresponding prefixes on the right Not all prefixes are used

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Diagram Description automatically generated with low confidence

NEW QUESTION 14

- (Topic 3)

Which characteristic differentiates the concept of authentication from authorization and accounting?

- A. user-activity logging
- B. service limitations
- C. consumption-based billing
- D. identity verification

Answer: D

NEW QUESTION 16

- (Topic 3)

A network engineer is configuring a switch so that it is remotely reachable via SSH. The engineer has already configured the host name on the router. Which additional command must the engineer configure before entering the command to generate the RSA key?

- A. password password
- B. crypto key generate rsa modulus 1024
- C. ip domain-name domain
- D. ip ssh authentication-retries 2

Answer: C

Explanation:

<https://www.cisco.com/c/en/us/solutions/small-business/resource-center/networking/how-to-setup-network-switch.html>

NEW QUESTION 20

- (Topic 3)

Refer to the exhibit.

```

R1# show ip route
Codes:
C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP, D -
EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area N1 - OSPF NSSA
external type 1, N2 - OSPF NSSA external type 2, E1 - OSPF external type
1, E2 - OSPF external type 2, E - EGP
i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, * - candidate default,
U - per-user static route, o - ODR
Gateway of last resort is not set
C 10.0.0.0/8 is directly connected, Loopback0
  10.0.0.0/8 is variably subnetted, 4 subnets, 2 masks
O 10.0.1.3/32 [110/100] via 10.0.1.100, 00:39:08, Serial0
C 10.0.1.0/24 is directly connected, Serial0
O 10.0.1.5/32 [110/5] via 10.0.1.50, 00:39:08, Serial0
O 10.0.10.0/24 [110/10] via 10.0.1.4, 00:39:08, Gigabit Ethernet 0/0
D 10.0.10.0/24 [90/10] via 10.0.1.5, 00:39:08, Gigabit Ethernet 0/1
    
```

Web traffic is coming in from the WAN interface. Which route takes precedence when the router is processing traffic destined for the LAN network at 10.0.10.0/24?

- A. via next-hop 10.0.1.5
- B. via next-hop 10.0.1.4
- C. via next-hop 10.0.1.50
- D. via next-hop 10.0.1.100

Answer: A

NEW QUESTION 21

- (Topic 3)

Which type of IPv6 address is similar to a unicast address but is assigned to multiple devices on the same network at the same time?

- A. global unicast address
- B. anycast address
- C. multicast address
- D. link-local address

Answer: B

NEW QUESTION 24

FILL IN THE BLANK - (Topic 3)

Drag and drop the functions of SNMP fault-management from the left onto the definitions on the right.

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Table Description automatically generated

NEW QUESTION 28

- (Topic 3)

Which PoE mode enables powered-device detection and guarantees power when the device is detected?

- A. dynamic
- B. static
- C. active
- D. auto

Answer: B

NEW QUESTION 33

- (Topic 2)

What role does a hypervisor provide for each virtual machine in server virtualization?

- A. infrastructure-as-a-service.
- B. Software-as-a-service
- C. control and distribution of physical resources
- D. services as a hardware controller.

Answer: C

Explanation:

The hypervisor creates and manages virtual machines on a host computer and allocates physical system resources to them.

NEW QUESTION 34

- (Topic 2)

Which type of IPv6 address is publicly routable in the same way as IPv4 public address?

- A. global unicast
- B. link-local
- C. unique local
- D. multicast

Answer: A

NEW QUESTION 35

- (Topic 2)

Refer to the exhibit.

```
SW1#show run int gig 0/1
interface GigabitEthernet0/1
  switchport access vlan 11
  switchport trunk allowed vlan 1-10
  switchport trunk encapsulation dot1q
  switchport trunk native vlan 5
  switchport mode trunk
  speed 1000
  duplex full
```

Which action is expected from SW1 when the untagged frame is received on the GigabitEthernet0/1 interface?

- A. The frame is processed in VLAN 5.
- B. The frame is processed in VLAN 11
- C. The frame is processed in VLAN 1
- D. The frame is dropped

Answer: A

NEW QUESTION 38

- (Topic 2)

Which networking function occurs on the data plane?

- A. forwarding remote client/server traffic
- B. facilitates spanning-tree elections
- C. processing inbound SSH management traffic
- D. sending and receiving OSPF Hello packets

Answer: A

NEW QUESTION 40

- (Topic 2)

While examining excessive traffic on the network, it is noted that all incoming packets on an interface appear to be allowed even though an IPv4 ACL is applied to the interface.

Which two misconfigurations cause this behavior? (Choose two)

- A. The packets fail to match any permit statement
- B. A matching permit statement is too high in the access test
- C. A matching permit statement is too broadly defined
- D. The ACL is empty
- E. A matching deny statement is too high in the access list

Answer: BC

NEW QUESTION 43

- (Topic 2)

Which protocol does an access point use to draw power from a connected switch?

- A. Internet Group Management Protocol
- B. Adaptive Wireless Path Protocol
- C. Cisco Discovery Protocol
- D. Neighbor Discovery Protocol

Answer: C

NEW QUESTION 48

- (Topic 2)

Using direct sequence spread spectrum, which three 2.4-GHz channels are used to limit collisions?

- A. 1,6,11
- B. 1,5,10
- C. 1,2,3
- D. 5,6,7

Answer: A

NEW QUESTION 50

- (Topic 2)

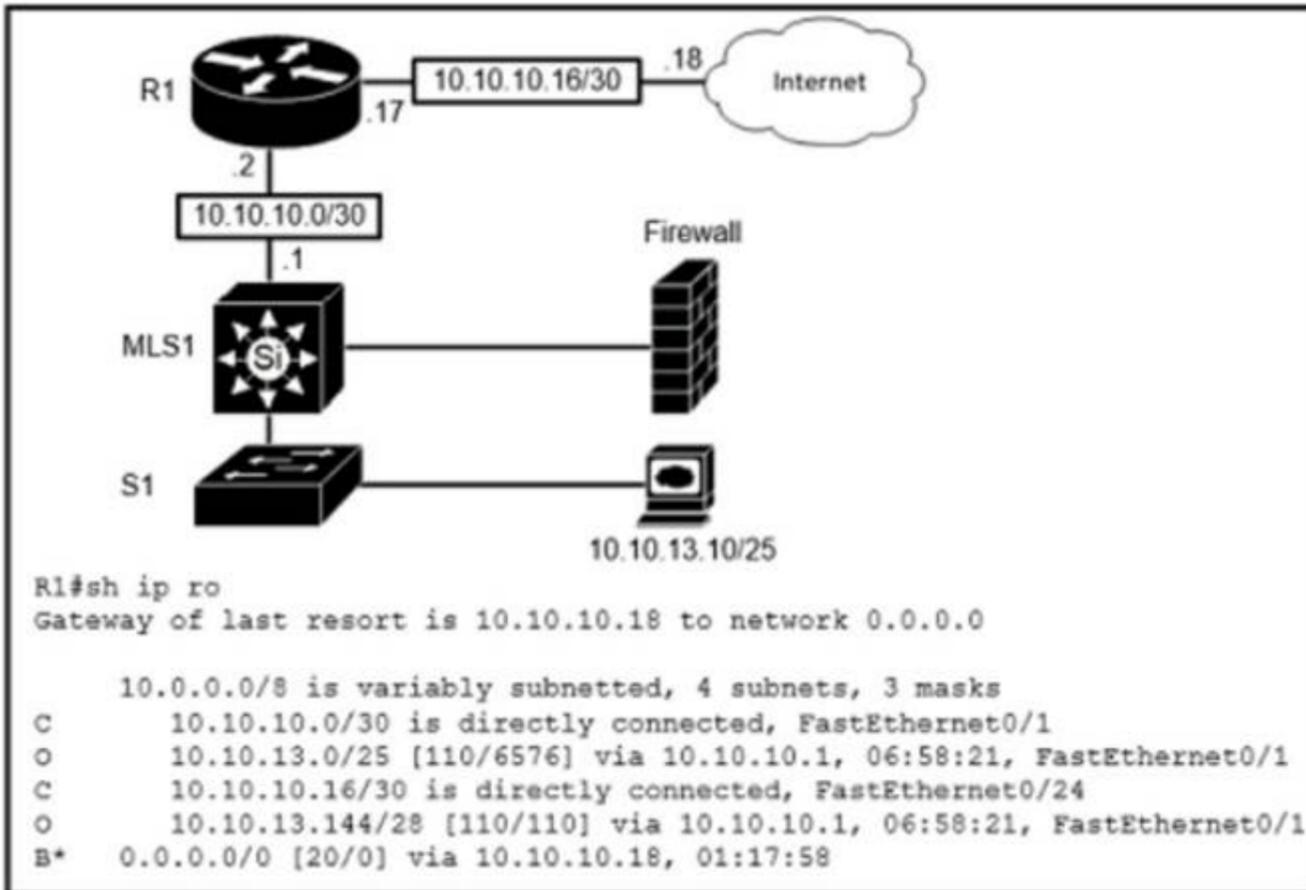
An engineer observes high usage on the 2.4GHz channels and lower usage on the 5GHz channels. What must be configured to allow clients to preferentially use 5GHz access points?

- A. Re- Anchor Roamed Clients
- B. 11ac MU-MIMO
- C. OEAP Split Tunnel
- D. Client Band Select

Answer: D

NEW QUESTION 54

- (Topic 2)
 Refer to the exhibit.



Which route type is configured to reach the internet?

- A. host route
- B. default route
- C. floating static route
- D. network route

Answer: B

NEW QUESTION 56

- (Topic 2)
 What is the same for both copper and fiber interfaces when using SFP modules?

- A. They support an inline optical attenuator to enhance signal strength
- B. They provide minimal interruption to services by being hot-swappable
- C. They offer reliable bandwidth up to 100 Mbps in half duplex mode
- D. They accommodate single-mode and multi-mode in a single module

Answer: B

NEW QUESTION 61

- (Topic 2)
 Which two QoS tools provides congestion management? (Choose two)

- A. CAR
- B. CBWFQ
- C. PQ
- D. PBR
- E. FRTS

Answer: BC

Explanation:

Type of queuing methods are available:• First-In-First-Out (FIFO)• Priority Queuing (PQ)• Custom Queuing (CQ)• Weighted Fair Queuing (WFQ)• Class-Based Weighted Fair Queuing (CBWFQ)• Low-Latency Queuing (LLQ)
<https://www.orbit-computer-solutions.com/qos-congestion-management-tools/>

NEW QUESTION 64

- (Topic 2)
 Which plane is centralized by an SDN controller?

- A. management-plane
- B. control-plane
- C. data-plane
- D. services-plane

Answer: B

NEW QUESTION 66

- (Topic 2)

What is a characteristic of spine-and-leaf architecture?

- A. Each device is separated by the same number of hops
- B. It provides variable latency
- C. It provides greater predictability on STP blocked ports.
- D. Each link between leaf switches allows for higher bandwidth.

Answer: A

NEW QUESTION 71

- (Topic 2)

A network administrator needs to aggregate 4 ports into a single logical link which must negotiate layer 2 connectivity to ports on another switch. What must be configured when using active mode on both sides of the connection?

- A. 802.1q trunks
- B. Cisco vPC
- C. LLDP
- D. LACP

Answer: D

NEW QUESTION 72

- (Topic 2)

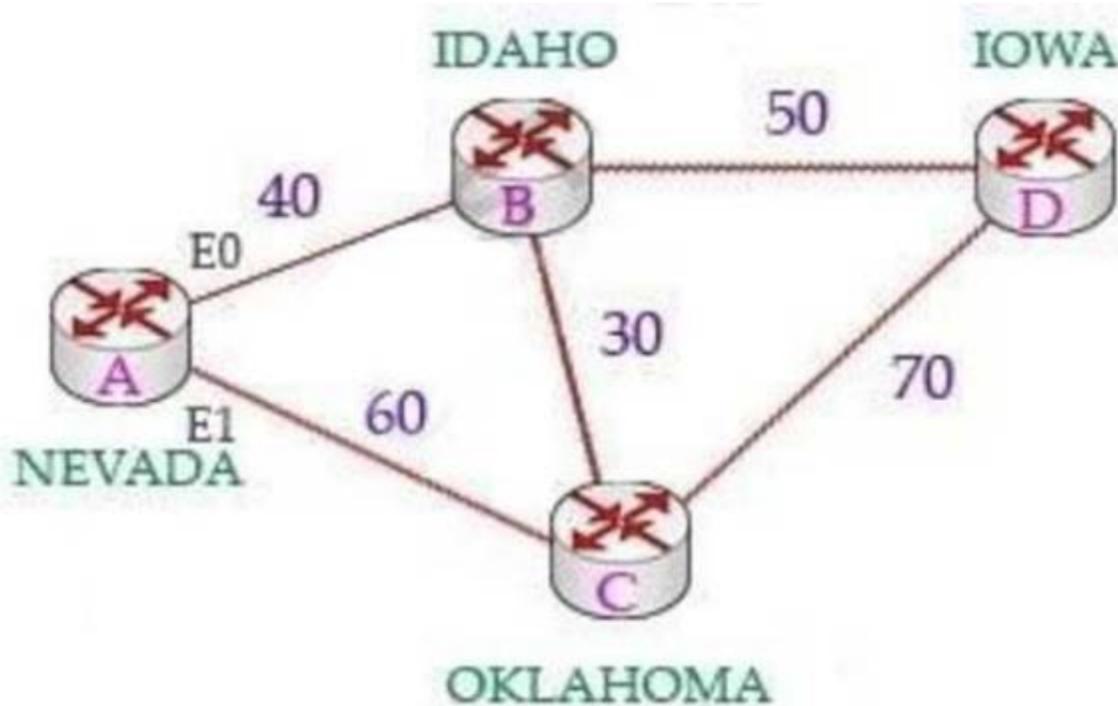
Which two actions influence the EIGRP route selection process? (Choose two)

- A. The router calculates the reported distance by multiplying the delay on the exiting Interface by 256.
- B. The router calculates the best backup path to the destination route and assigns it as the feasible successor.
- C. The router calculates the feasible distance of all paths to the destination route
- D. The advertised distance is calculated by a downstream neighbor to inform the local router of the bandwidth on the link
- E. The router must use the advertised distance as the metric for any given route

Answer: BC

Explanation:

The reported distance (or advertised distance) is the cost from the neighbor to the destination. It is calculated from the router advertising the route to the network. For example in the topology below, suppose router A & B are exchanging their routing tables for the first time. Router B says "Hey, the best metric (cost) from me to IOWA is 50 and the metric from you to IOWA is 90" and advertises it to router A. Router A considers the first metric (50) as the Advertised distance. The second metric (90), which is from NEVADA to IOWA (through IDAHO), is called the Feasible distance.



The reported distance is calculated in the same way of calculating the metric. By default (K1 = 1, K2 = 0, K3 = 1, K4 = 0, K5 = 0), the metric is calculated as follows:

$$metric = \left[\frac{10,000,000}{\text{slowest bandwidth[in kbps]} + \frac{\text{sum of delay[in } \mu\text{sec}]}{10}} \right] * 256$$

NEW QUESTION 77

- (Topic 2)

An engineer requires a scratch interface to actively attempt to establish a trunk link with a neighbor switch. What command must be configured?

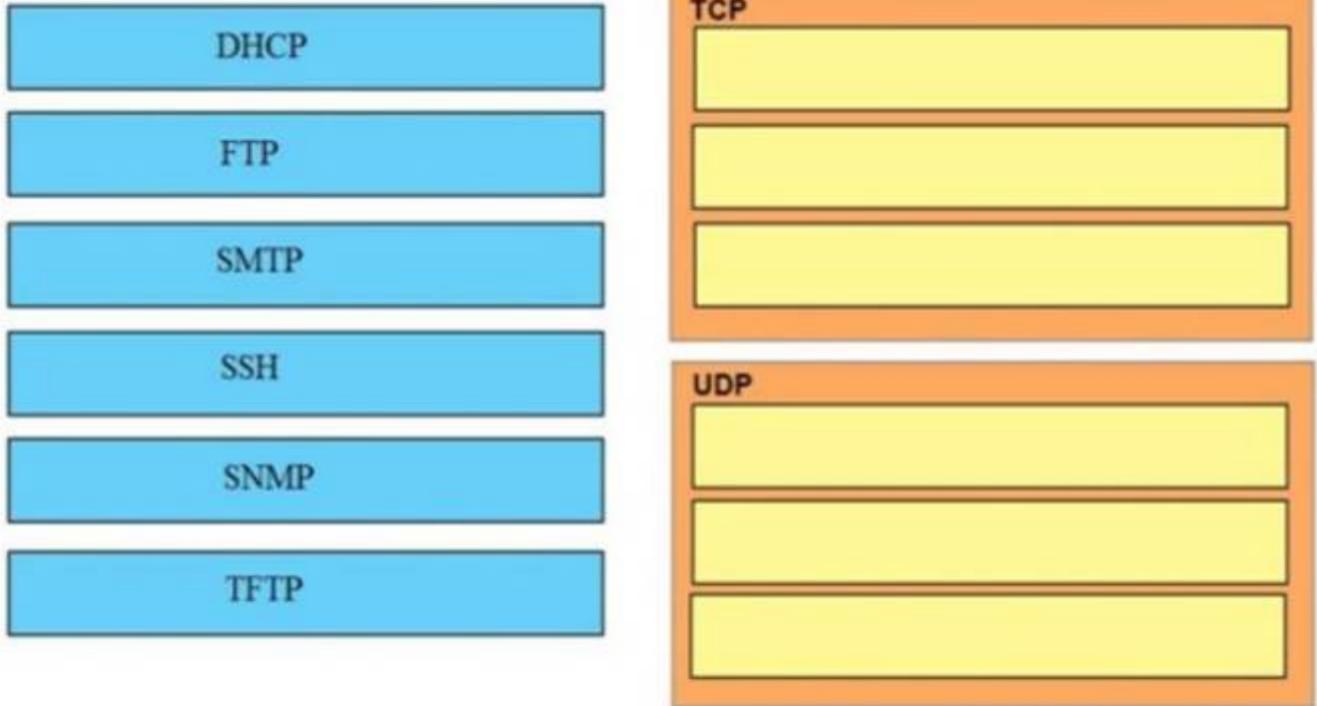
- A. switchport mode trunk
- B. switchport mode dynamic desirable
- C. switchport mode dynamic auto
- D. switchport nonegotiate

Answer: C

NEW QUESTION 79

DRAG DROP - (Topic 2)

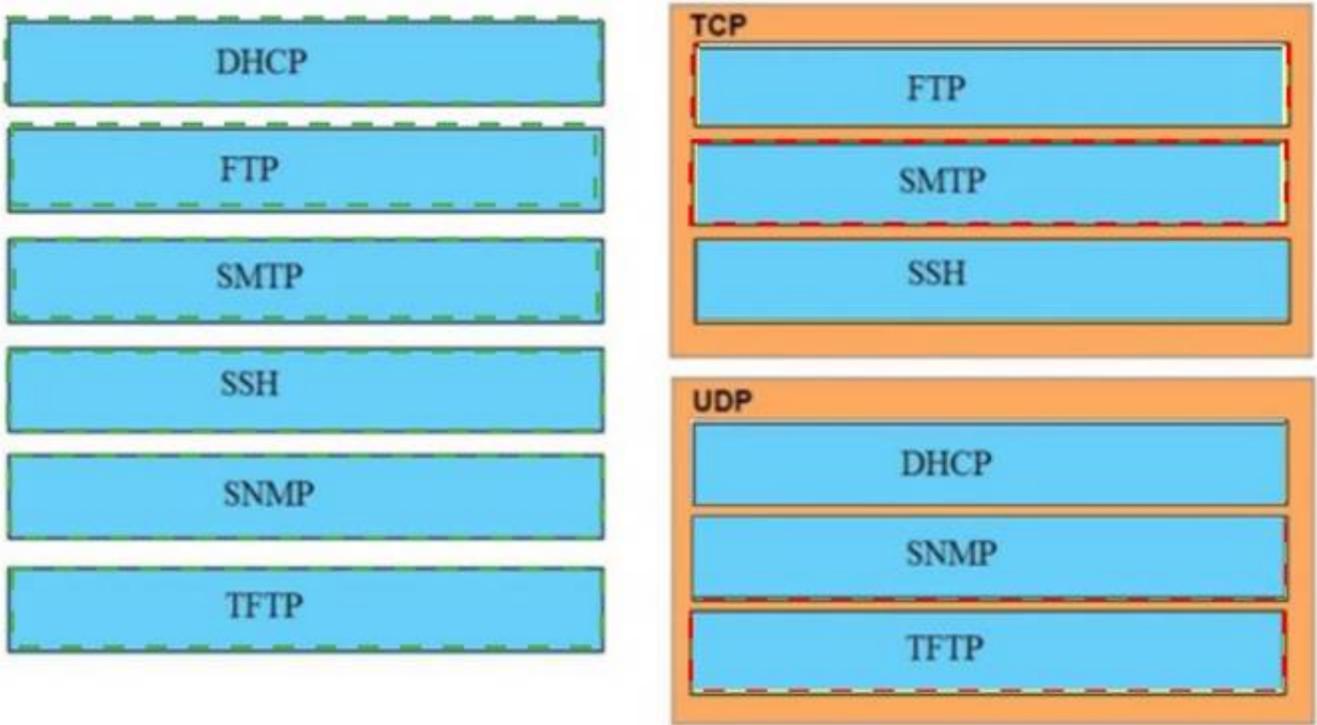
Drag and drop the application protocols from the left onto the transport protocols that it uses on the right



- A. Mastered
- B. Not Mastered

Answer: A

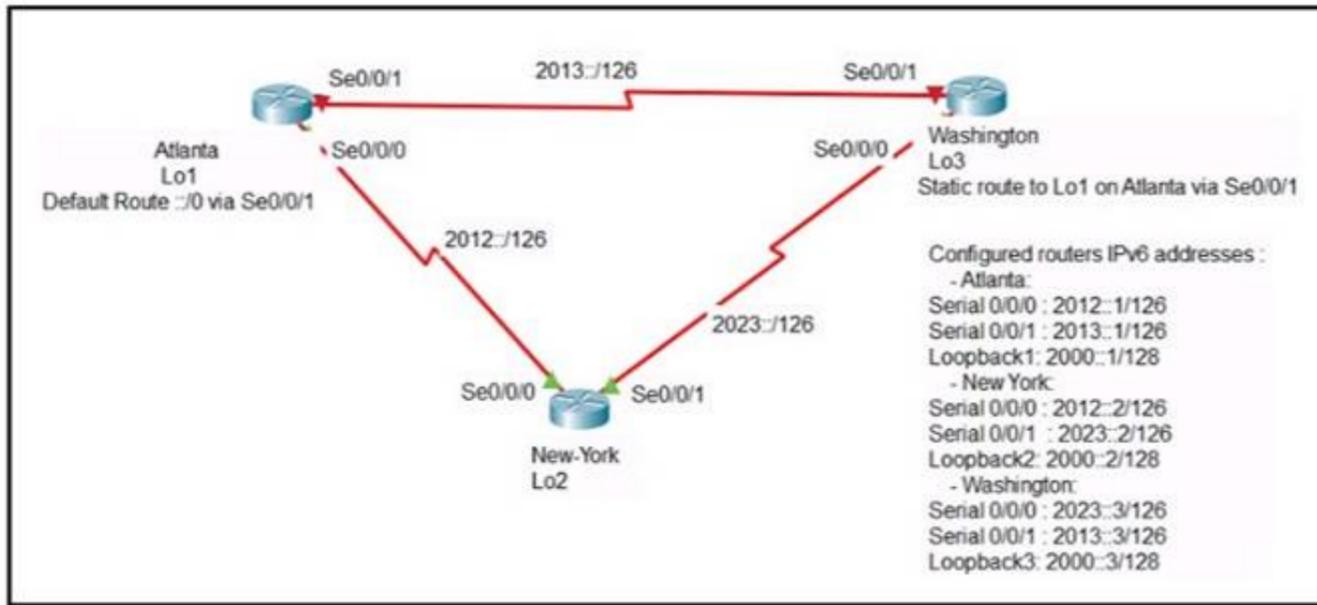
Explanation:



NEW QUESTION 82

- (Topic 2)

Refer to Exhibit.



An engineer is configuring the NEW York router to reach the Lo1 interface of the Atlanta router using interface Se0/0/0 as the primary path. Which two commands must be configured on the New York router so that it can reach the Lo1 interface of the Atlanta router via Washington when the link between New York and Atlanta goes down? (Choose two)

- A. ipv6 router 2000::1/128 2012::1
- B. ipv6 router 2000::1/128 2012::1 5
- C. ipv6 router 2000::1/128 2012::2
- D. ipv6 router 2000::1/128 2023::2 5
- E. ipv6 router 2000::1/128 2023::3 5

Answer: AE

Explanation:

Floating static routes are static routes that have an administrative distance greater than the administrative distance (AD) of another static route or dynamic routes. By default a static route has an AD of 1 then floating static route must have the AD greater than 1. Floating static route has a manually configured administrative distance greater than that of the primary route and therefore would not be in the routing table until the primary route fails.

NEW QUESTION 83

- (Topic 2)

What is a role of access points in an enterprise network?

- A. connect wireless devices to a wired network
- B. support secure user logins to devices or the network
- C. integrate with SNMP in preventing DDoS attacks
- D. serve as a first line of defense in an enterprise network

Answer: A

NEW QUESTION 87

- (Topic 2)

What makes Cisco DNA Center different from traditional network management applications and their management of networks?

- A. It omits supports auto-discovery of network elements in a greenfield deployment.
- B. Its modular design allows someone to implement different versions to meet the specific needs of an organization
- C. It abstracts policy from the actual device configuration
- D. It does not support high availability of management functions when operating in cluster mode

Answer: C

NEW QUESTION 88

- (Topic 2)

An engineer must configure an OSPF neighbor relationship between router R1 and R3. The authentication configuration has been configured and the connecting interfaces are in the same 192.168.1.0/30 subnet. What are the next two steps to complete the configuration? (Choose two.)

- A. configure the hello and dead timers to match on both sides
- B. configure the same process ID for the router OSPF process
- C. configure the same router ID on both routing processes
- D. Configure the interfaces as OSPF active on both sides.
- E. configure both interfaces with the same area ID

Answer: AE

NEW QUESTION 91

- (Topic 2)

How does WPA3 improve security?

- A. It uses SAE for authentication.
- B. It uses a 4-way handshake for authentication.
- C. It uses RC4 for encryption.
- D. It uses TKIP for encryption.

Answer: A

NEW QUESTION 94

- (Topic 2)

Which statement correctly compares traditional networks and controller-based networks?

- A. Only traditional networks offer a centralized control plane
- B. Only traditional networks natively support centralized management
- C. Traditional and controller-based networks abstract policies from device configurations
- D. Only controller-based networks decouple the control plane and the data plane

Answer: D

Explanation:

Most traditional devices use a distributed architecture, in which each control plane is resided in a networking device. Therefore they need to communicate with each other via messages to work correctly. In contrast to distributed architecture, centralized (or controller-based) architectures centralizes the control of networking devices into one device, called SDN controller

NEW QUESTION 98

- (Topic 2)

Which protocol requires authentication to transfer a backup configuration file from a router to a remote server?

- A. DTP
- B. FTP
- C. SMTP
- D. TFTP

Answer: B

NEW QUESTION 100

- (Topic 2)

Refer to the exhibit.

```

SW1(config-line)#line vty 0 15
SW1(config-line)#no login local
SW1(config-line)#password cisco

SW2(config)#username admin1 password abcd1234
SW2(config)#username admin2 password abcd1234
SW2(config-line)#line vty 0 15
SW2(config-line)#login local

SW3(config)#username admin1 secret abcd1234
SW3(config)#username admin2 secret abcd1234
SW3(config-line)#line vty 0 15
SW3(config-line)#login local

SW4(config)#username admin1 secret abcd1234
SW4(config)#username admin2 secret abcd1234
SW4(config-line)#line console 0
SW4(config-line)#login local
    
```

An administrator configures four switches for local authentication using passwords that are stored in a cryptographic hash. The four switches must also support SSH access for administrators to manage the network infrastructure. Which switch is configured correctly to meet these requirements?

- A. SW1
- B. SW2
- C. SW3
- D. SW4

Answer: C

NEW QUESTION 103

- (Topic 2)

When a site-to-site VPN is used, which protocol is responsible for the transport of user data?

- A. IKEv2
- B. IKEv1
- C. IPsec
- D. MD5

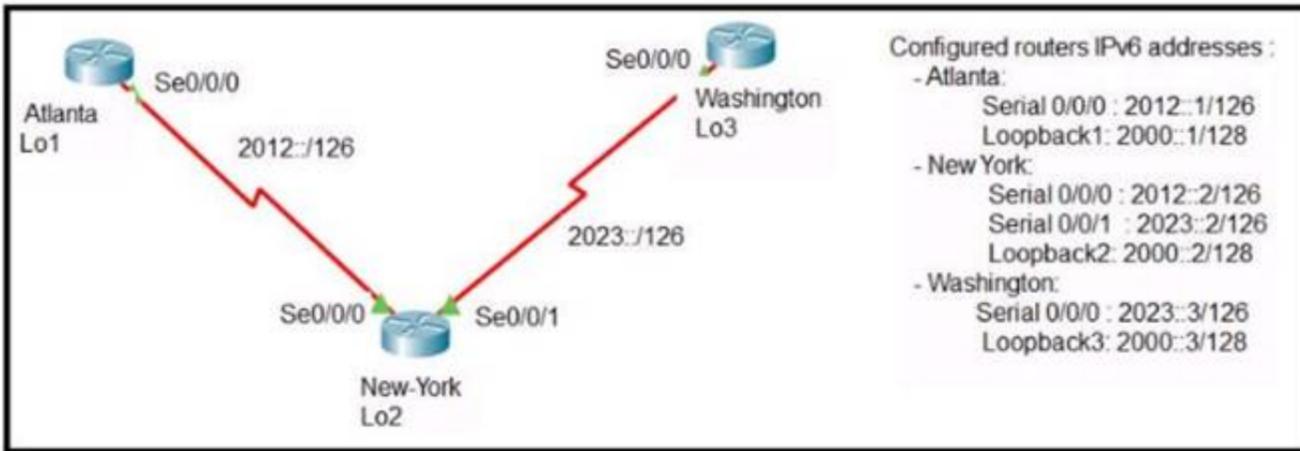
Answer: C

Explanation:

A site-to-site VPN allows offices in multiple fixed locations to establish secure connections with each other over a public network such as the Internet. A site-to-site VPN means that two sites create a VPN tunnel by encrypting and sending data between two devices. One set of rules for creating a site-to-site VPN is defined by IPsec.

NEW QUESTION 106

- (Topic 2)
 Refer to the exhibit.



The New York router is configured with static routes pointing to the Atlanta and Washington sites. Which two tasks must be performed so that the Serial0/0/0 interfaces on the Atlanta and Washington routers can reach one another? (Choose two.)

- A. Configure the ipv6 route 2012::/126 2023::1 command on the Washington router.
- B. Configure the ipv6 route 2023::/126 2012::1 command on the Atlanta router.
- C. Configure the Ipv6 route 2012::/126 s0/0/0 command on the Atlanta router.
- D. Configure the ipv6 route 2023::/126 2012::2 command on the Atlanta router.
- E. Configure the ipv6 route 2012::/126 2023::2 command on the Washington router.

Answer: DE

Explanation:

The short syntax of static IPv6 route is: `ipv6 route <destination-IPv6-address> {next-hop-IPv6-address | exit-interface}`

NEW QUESTION 111

- (Topic 2)
 What are two benefits of FHRPs? (Choose two.)

- A. They prevent (oops in the Layer 2 network.
- B. They allow encrypted traffic.
- C. They are able to bundle multiple ports to increase bandwidth
- D. They enable automatic failover of the default gateway.
- E. They allow multiple devices to serve as a single virtual gateway for clients in the network

Answer: DE

NEW QUESTION 115

- (Topic 2)
 What is a characteristic of private IPv4 addressing?

- A. traverse the Internet when an outbound ACL is applied
- B. issued by IANA in conjunction with an autonomous system number
- C. composed of up to 65.536 available addresses
- D. used without tracking or registration

Answer: D

NEW QUESTION 120

- (Topic 2)
 What are two characteristics of a public cloud Implementation? (Choose two.)

- A. It is owned and maintained by one party, but it is shared among multiple organizations.
- B. It enables an organization to fully customize how it deploys network resources.
- C. It provides services that are accessed over the Internet.
- D. It is a data center on the public Internet that maintains cloud services for only one company.
- E. It supports network resources from a centralized third-party provider and privately- owned virtual resources

Answer: CE

Explanation:

Private cloud is cloud infrastructure operated solely for a single organization, whether managed internally or by a third party, and hosted either internally or externally. Most public-cloud providers offer direct-connection services that allow customers to securely link their legacy data centers to their cloud-resident applications.

NEW QUESTION 125

- (Topic 2)

Refer to the exhibit.



An engineer configured the New York router with state routes that point to the Atlanta and Washington sites. When command must be configured on the Atlanta and Washington routers so that both sites are able to reach the loopback2 interface on the New York router?

- A. ipv6 route ::/0 Serial 0/0/1
- B. ipv6 route 0/0 Serial 0/0/0
- C. ipv6 route ::/0 Serial 0/0/0
- D. ip route 0.0.0.0.0.0.0.0 Serial 0/0/0
- E. ipv6 route ::/0 2000::2

Answer: C

NEW QUESTION 129

- (Topic 2)

A wireless administrator has configured a WLAN; however, the clients need access to a less congested 5-GHz network for their voice quality. What action must be taken to meet the requirement?

- A. enable AAA override
- B. enable RX-SOP
- C. enable DTIM
- D. enable Band Select

Answer: D

NEW QUESTION 134

- (Topic 2)

What are two reasons that cause late collisions to increment on an Ethernet interface? (Choose two)

- A. when the sending device waits 15 seconds before sending the frame again
- B. when the cable length limits are exceeded
- C. when one side of the connection is configured for half-duplex
- D. when Carrier Sense Multiple Access/Collision Detection is used
- E. when a collision occurs after the 32nd byte of a frame has been transmitted

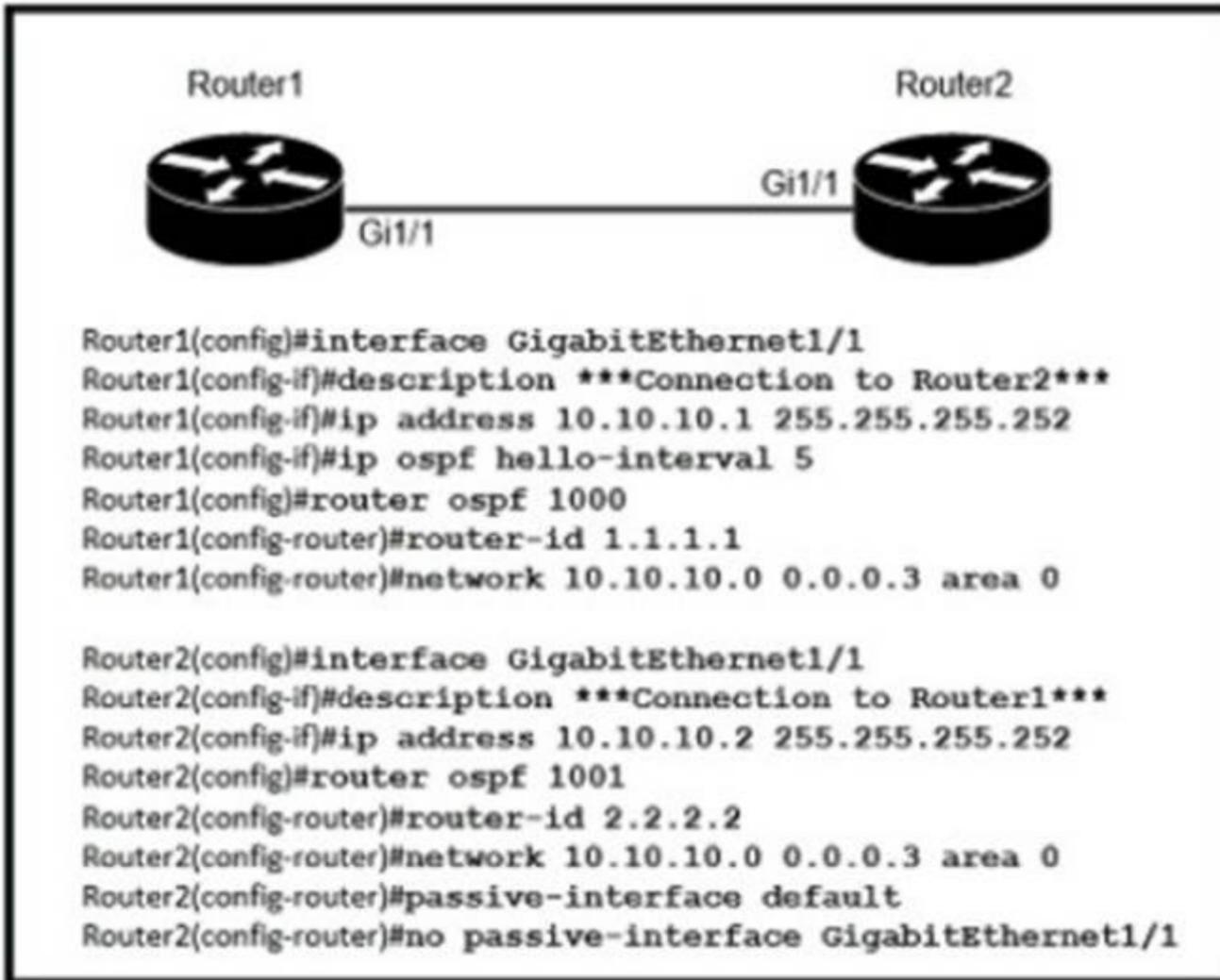
Answer: BC

Explanation:

The usual possible causes are full-duplex/half-duplex mismatch, exceeded Ethernet cable length limits, or defective hardware such as incorrect cabling, non-compliant number of hubs in the network, or a bad NIC.

NEW QUESTION 137

- (Topic 2)



Refer to the exhibit. After the configuration is applied, the two routers fail to establish an OSPF neighbor relationship. what is the reason for the problem?

- A. The OSPF router IDs are mismatched.
- B. Router2 is using the default hello timer.
- C. The network statement on Router1 is misconfigured.
- D. The OSPF process IDs are mismatched.

Answer: B

NEW QUESTION 140

- (Topic 2)

Which goal is achieved by the implementation of private IPv4 addressing on a network?

- A. provides an added level of protection against Internet exposure
- B. provides a reduction in size of the forwarding table on network routers
- C. allows communication across the Internet to other private networks
- D. allows servers and workstations to communicate across public network boundaries

Answer: A

NEW QUESTION 144

- (Topic 2)

What are two characteristics of an SSID? (Choose Two)

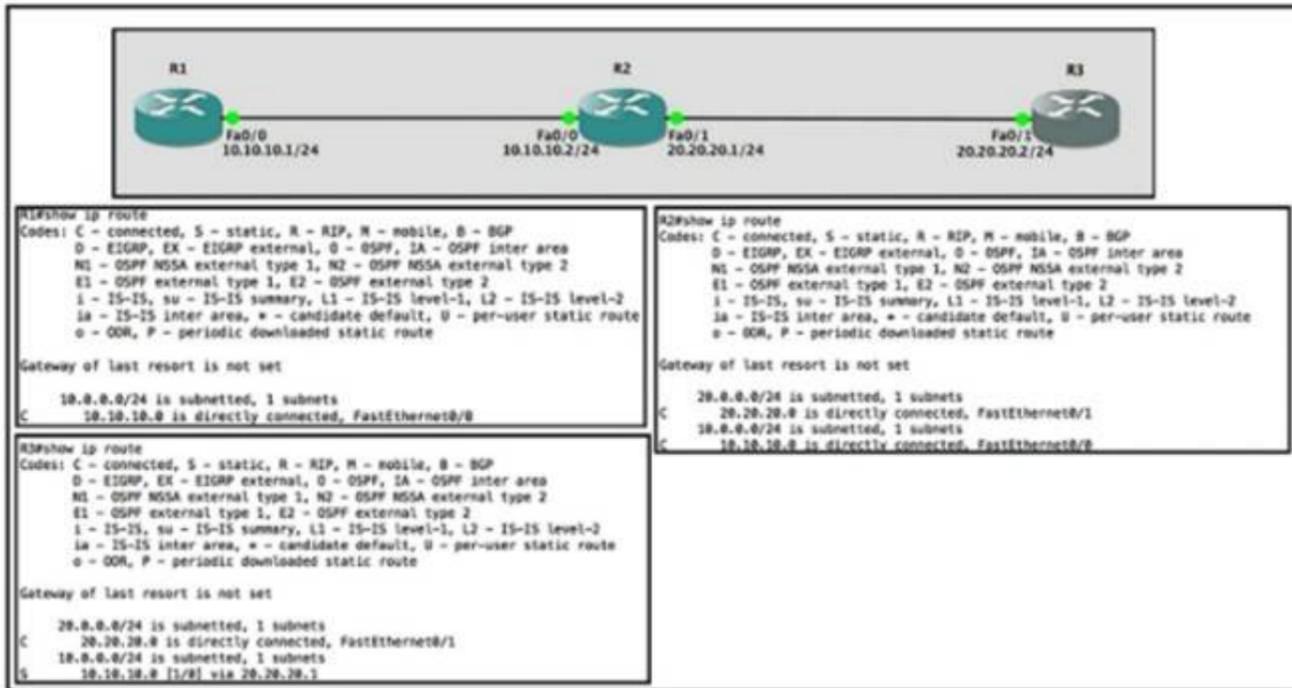
- A. It can be hidden or broadcast in a WLAN
- B. It uniquely identifies an access point in a WLAN
- C. It uniquely identifies a client in a WLAN
- D. It is at most 32 characters long.
- E. IT provides secured access to a WLAN

Answer: BE

NEW QUESTION 149

- (Topic 2)

Refer to the exhibit.



Router R1 Fa0/0 is unable ping router R3 Fa0/1.
 Which action must be taken in router R1 to help resolve the configuration issue?

- A. set the default network as 20.20.20.0/24
- B. set the default gateway as 20.20.20.2
- C. configure a static route with Fa0/1 as the egress interface to reach the 20.20.20.0/24 network
- D. configure a static route with 10.10.10.2 as the next hop to reach the 20.20.20.0/24 network

Answer: D

NEW QUESTION 150

- (Topic 2)

How does CAPWAP communicate between an access point in local mode and a WLC?

- A. The access point must directly connect to the WLC using a copper cable
- B. The access point must not be connected to the wired network, as it would create a loop
- C. The access point must be connected to the same switch as the WLC
- D. The access point has the ability to link to any switch in the network, assuming connectivity to the WLC

Answer: D

NEW QUESTION 155

- (Topic 2)

Refer to the exhibit.

```

R1# sh ip ospf int gig0/0
Gig0/0 is up, line protocol is up
  Internet Address 10.201.24.8/28, Area 1, Attached via Network Statement
  Process ID 100, Router ID 192.168.1.1, Network Type BROADCAST, Cost: 1
  Topology-MTID    Cost    Disabled    Shutdown    Topology Name
      0          1        no          no          Base
  Transmit Delay is 1 sec, State DR, Priority 1
  Designated Router (ID) 192.168.1.1, Interface address 10.201.24.8
  No backup designated router on this network
  Timer intervals configured, Hello 10, Dead 40, Wait 40, Retransmit 5
    oob-resync timeout 40
    Hello due in 00:00:07

R2#sh ip ospf int gig0/0
gig0/0 is up, line protocol is up
  Internet Address 10.201.24.1/28, Area 1
  Process ID 100, Router ID 172.16.1.1, Network Type BROADCAST, Cost: 1
  Transmit Delay is 1 sec, State DR, Priority 1
  Designated Router (ID) 172.16.1.1, Interface address 10.201.24.1
  No backup designated router on this network
  Timer intervals configured, Hello 20, Dead 80, Wait 80, Retransmit 5
  
```

What action establishes the OSPF neighbor relationship without forming an adjacency?

- A. modify hello interval
- B. modify process ID
- C. modify priority
- D. modify network type

Answer: A

NEW QUESTION 160

- (Topic 2)
 Refer to Exhibit.

```
SW2
vtp domain cisco
vtp mode transparent
vtp password ciscotest
interface fastethernet0/1
description connection to sw1
switchport mode trunk
switchport trunk encapsulation dot1q
```

How does SW2 interact with other switches in this VTP domain?

- A. It processes VTP updates from any VTP clients on the network on its access ports.
- B. It receives updates from all VTP servers and forwards all locally configured VLANs out all trunk ports
- C. It forwards only the VTP advertisements that it receives on its trunk ports.
- D. It transmits and processes VTP updates from any VTP Clients on the network on its trunk ports

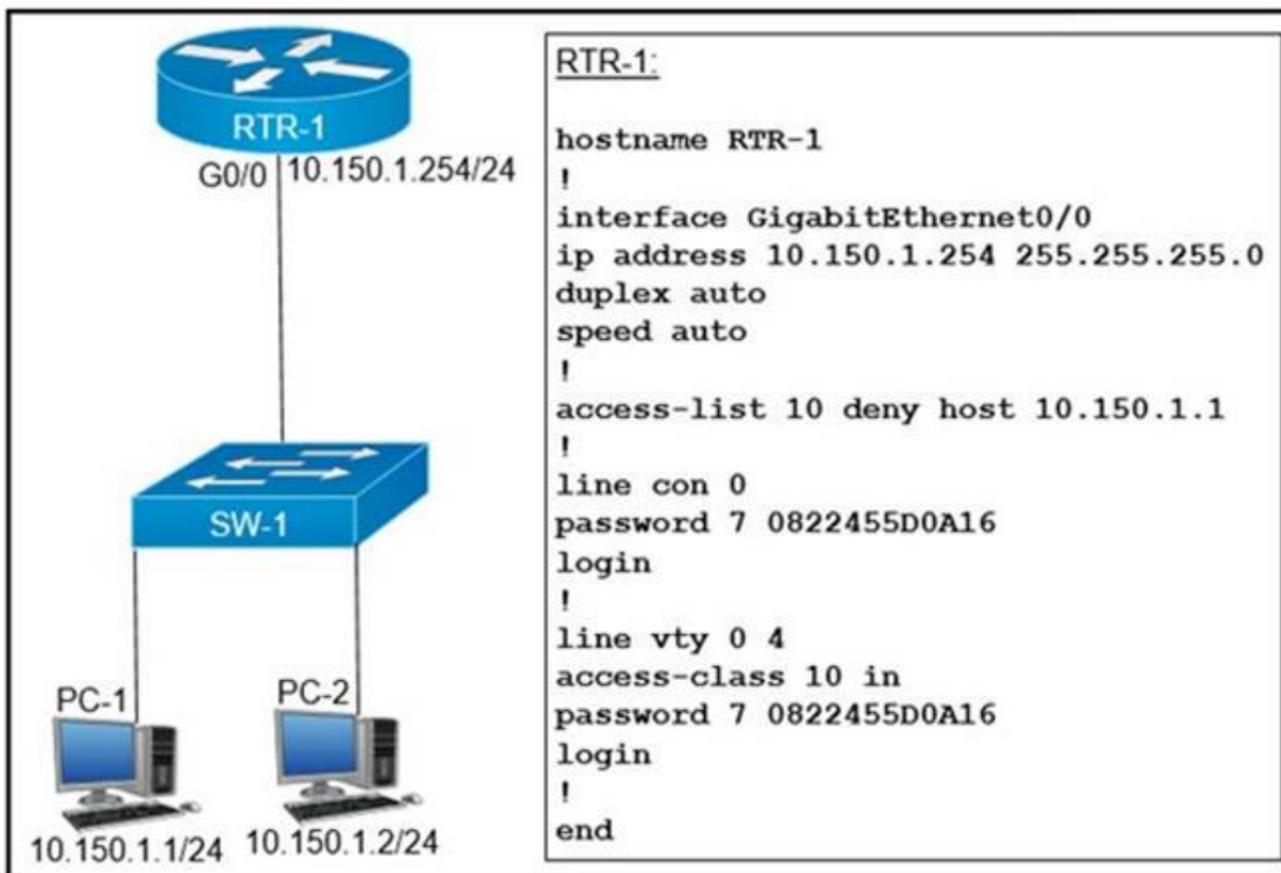
Answer: C

Explanation:

Reference: <https://www.cisco.com/c/en/us/support/docs/lan-switching/vtp/10558-21.html>
 The VTP mode of SW2 is transparent so it only forwards the VTP updates it receives to its trunk links without processing them.

NEW QUESTION 164

- (Topic 2)
 Refer to the exhibit.



An access list is created to deny Telnet access from host PC-1 to RTR-1 and allow access from all other hosts A Telnet attempt from PC-2 gives this message: "% Connection refused by remote host" Without allowing Telnet access from PC-1, which action must be taken to permit the traffic?

- A. Add the access-list 10 permit any command to the configuration
- B. Remove the access-class 10 in command from line vty 0.4.
- C. Add the ip access-group 10 out command to interface g0/0.
- D. Remove the password command from line vty 0 4.

Answer: A

NEW QUESTION 165

- (Topic 2)
 What Is the path for traffic sent from one user workstation to another workstation on a separate switch In a three-tier architecture model?

- A. access - core - distribution - access
- B. access - distribution - distribution - access
- C. access - core - access
- D. access -distribution - core - distribution - access

Answer: D

NEW QUESTION 170

- (Topic 2)

A device detects two stations transmitting frames at the same time. This condition occurs after the first 64 bytes of the frame is received interface counter increments?

- A. collision
- B. CRC
- C. runt
- D. late collision

Answer: D

Explanation:

<https://www.cisco.com/c/en/us/support/docs/interfaces-modules/port-adapters/12768-eth-collisions.html>

NEW QUESTION 174

- (Topic 2)

How do traditional campus device management and Cisco DNA Center device management differ in regards to deployment?

- A. Cisco DNA Center device management can deploy a network more quickly than traditional campus device management
- B. Traditional campus device management allows a network to scale more quickly than with Cisco DNA Center device management
- C. Cisco DNA Center device management can be implemented at a lower cost than most traditional campus device management options
- D. Traditional campus device management schemes can typically deploy patches and updates more quickly than Cisco DNA Center device management

Answer: A

NEW QUESTION 179

- (Topic 2)

An organization secures its network with multi-factor authentication using an authenticator app on employee smartphone. How is the application secured in the case of a user's smartphone being lost or stolen?

- A. The application requires an administrator password to reactivate after a configured Interval.
- B. The application requires the user to enter a PIN before it provides the second factor.
- C. The application challenges a user by requiring an administrator password to reactivate when the smartphone is rebooted.
- D. The application verifies that the user is in a specific location before it provides the second factor.

Answer: B

NEW QUESTION 182

- (Topic 2)

What are two recommendations for protecting network ports from being exploited when located in an office space outside of an IT closer? (Choose two.)

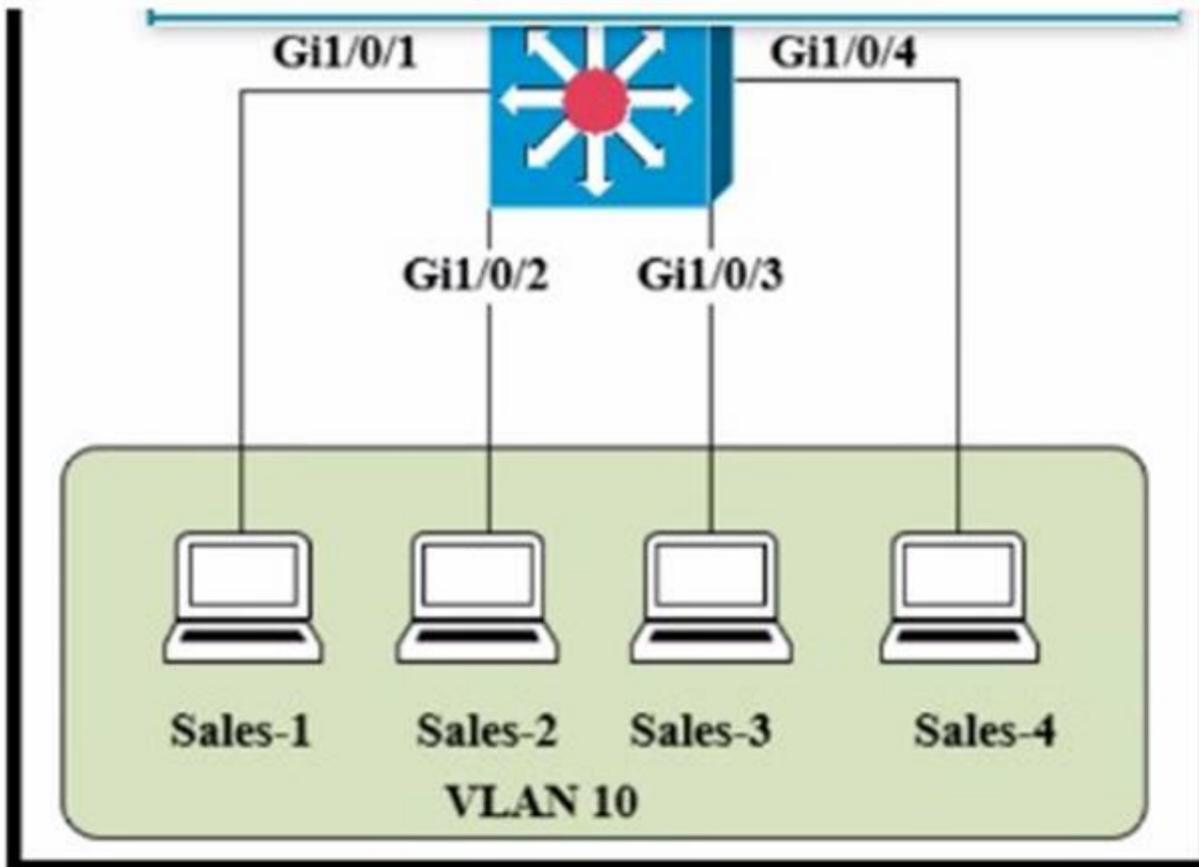
- A. enable the PortFast feature on ports
- B. implement port-based authentication
- C. configure static ARP entries
- D. configure ports to a fixed speed
- E. shut down unused ports

Answer: BE

NEW QUESTION 183

- (Topic 2)

Refer to the exhibit.



The entire contents of the MAC address table are shown. Sales-4 sends a data frame to Sales-1.

```
Sales-SW#show mac-address-table
Mac Address Table
```

```
-----
VLAN    MAC Address          Type    Ports
10      000c.8590.bb7d      DYNAMIC Gi1/0/1
10      3910.4161.9bb7      DYNAMIC           Gi1/0/2
10      00d0.d3b6.957c      DYNAMIC Gi1/0/3
Sales-SW#
```

What does the switch do as it receives the frame from Sales-4?

- A. Perform a lookup in the MAC address table and discard the frame due to a missing entry.
- B. Insert the source MAC address and port into the forwarding table and forward the frame to Sales-1.
- C. Map the Layer 2 MAC address to the Layer 3 IP address and forward the frame.
- D. Flood the frame out of all ports except on the port where Sales-1 is connected.

Answer: B

Explanation:

<https://www.ciscopress.com/articles/article.asp?p=3089352&seqNum=6>

NEW QUESTION 188

- (Topic 1)
 Refer to the exhibit.

```
Router#
Capability Codes: R - Router, T - Trans Bridge, B - Source Route Bridge
                  S - Switch, H - Host, I - IGMP, r - Repeater, P - Phone,
                  D - Remote, C - CVTA, M - Two-port Mac Relay

Device ID  Local Intrfce Holdtme  Capability Platform Port ID
10.1.1.2   Gig 37/3      176          R I      CPT 600  Gig 36/41
10.1.1.2   Gig 37/1      174          R I      CPT 600  Gig 36/43
10.1.1.2   Gig 36/41     134          R I      CPT 600  Gig 37/3
10.1.1.2   Gig 36/43     134          R I      CPT 600  Gig 37/1
10.1.1.2   Ten 3/2       132          R I      CPT 600  Ten 4/2
10.1.1.2   Ten 4/2       174          R I      CPT 600  Ten 3/2
```

Which command provides this output?

- A. show ip route

- B. show ip interface
- C. show interface
- D. show cdp neighbor

Answer: D

NEW QUESTION 192

- (Topic 1)

What is a role of wireless controllers in an enterprise network?

- A. centralize the management of access points in an enterprise network
- B. support standalone or controller-based architectures
- C. serve as the first line of defense in an enterprise network
- D. provide secure user logins to devices on the network.

Answer: A

NEW QUESTION 197

- (Topic 1)

Two switches are connected and using Cisco Dynamic Trunking Protocol SW1 is set to Dynamic Desirable
 What is the result of this configuration?

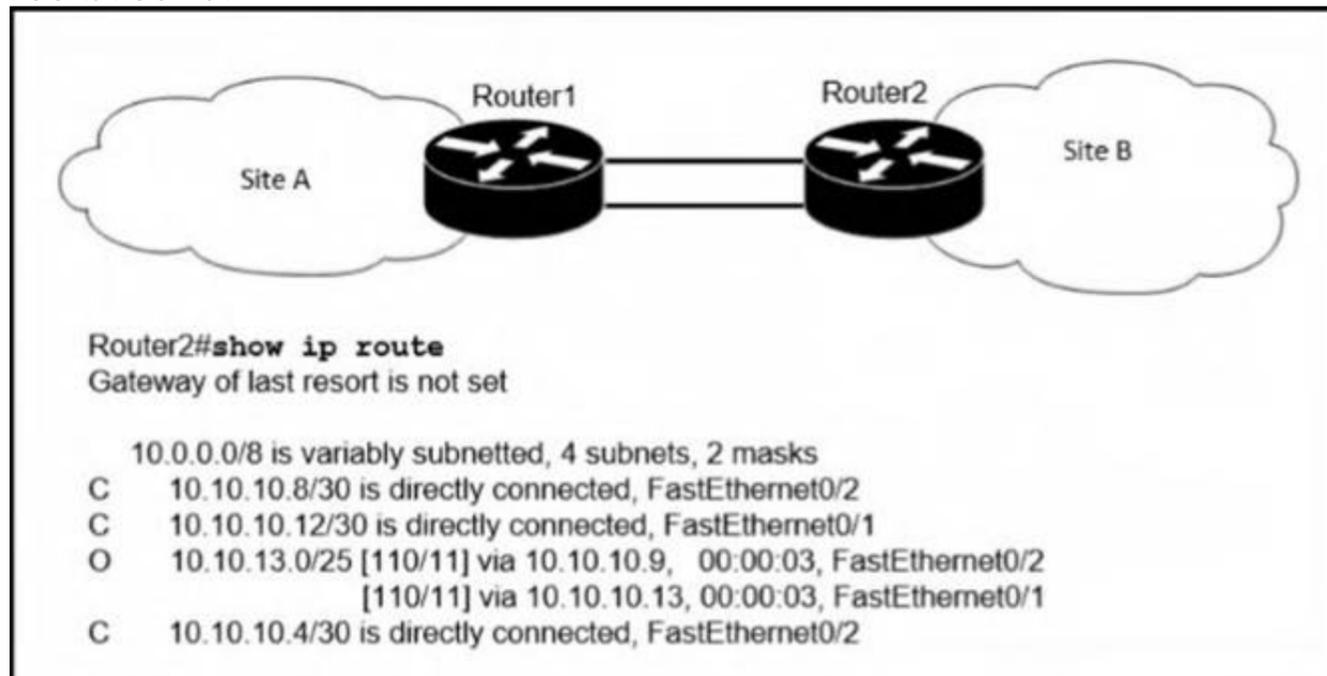
- A. The link is in a down state.
- B. The link is in an error disables state
- C. The link is becomes an access port.
- D. The link becomes a trunk port.

Answer: D

NEW QUESTION 202

- (Topic 1)

Refer to the exhibit.



If OSPF Is running on this network, how does Router2 handle traffic from Site B to 10.10.13.128/25 at Site A?

- A. It load-balances traffic out of Fa0/1 and Fa0/2.
- B. It is unreachable and discards the traffic.
- C. It sends packets out of interface Fa0/2.
- D. It sends packets out of interface Fa0/1.

Answer: B

NEW QUESTION 203

- (Topic 1)

What are two similarities between UTP Cat 5e and Cat 6a cabling? (Choose two.)

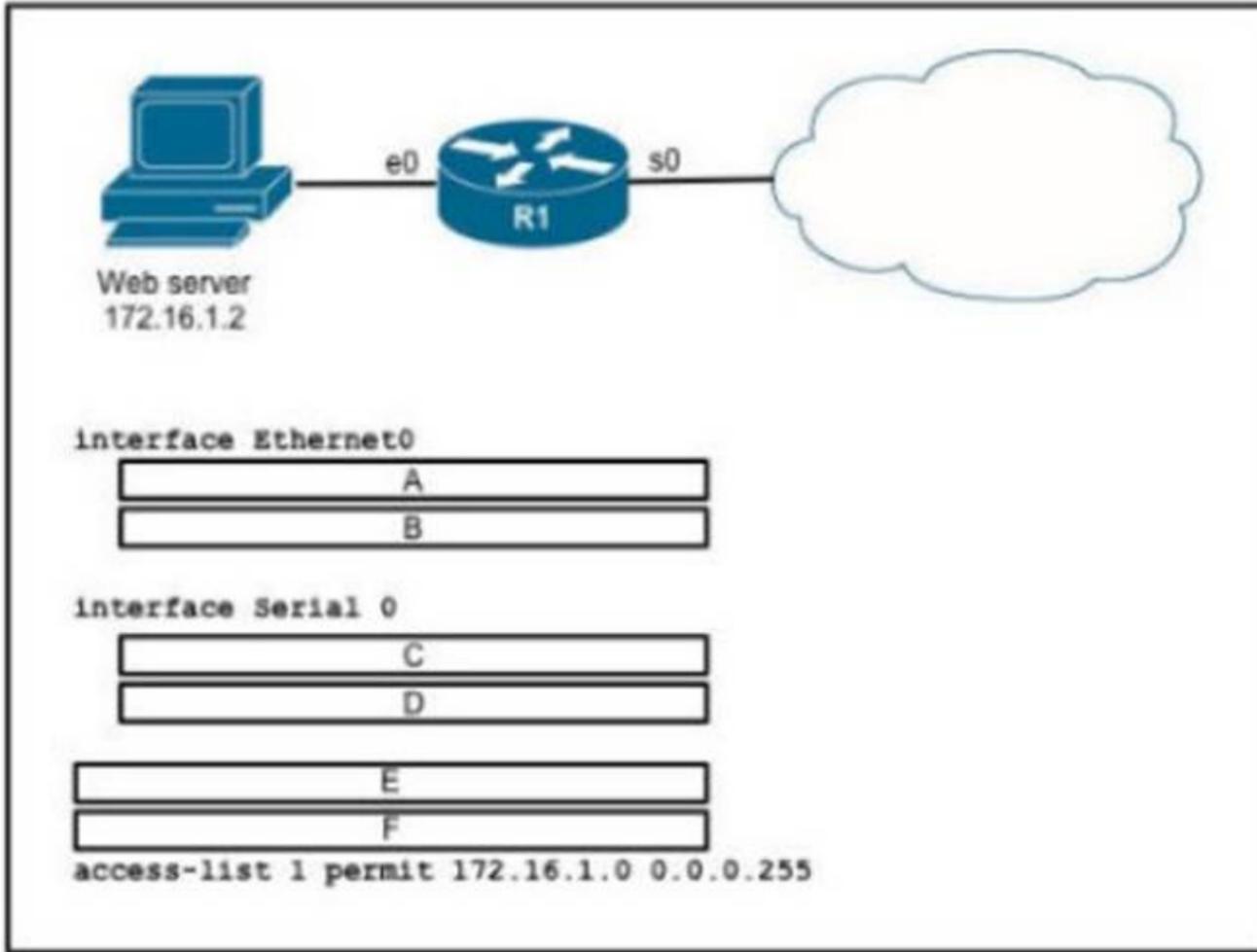
- A. Both operate at a frequency of 500 MHz.
- B. Both support runs of up to 55 meters.
- C. Both support runs of up to 100 meters.
- D. Both support speeds of at least 1 Gigabit.
- E. Both support speeds up to 10 Gigabit.

Answer: CD

NEW QUESTION 204

DRAG DROP - (Topic 1)

Refer to the exhibit.



An engineer is configuring the router to provide static NAT for the webserver Drag and drop the configuration commands from the left onto the letters that correspond to its position in the configuration on the right.

ip address 172.16.1.1 255.255.255.0	position A
ip address 45.83.2.214 255.255.255.240	position B
ip nat inside	position C
ip nat inside source list 1 interface s0 overload	position D
ip nat inside source static tcp 172.16.1.2 80 45.83.2.214 80 extendable	position E
ip nat outside	position F

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

ip address 172.16.1.1 255.255.255.0	ip address 172.16.1.1 255.255.255.0
ip address 45.83.2.214 255.255.255.240	ip nat inside
ip nat inside	ip address 45.83.2.214 255.255.255.240
ip nat inside source list 1 interface s0 overload	ip nat outside
ip nat inside source static tcp 172.16.1.2 80 45.83.2.214 80 extendable	ip nat inside source static tcp 172.16.1.2 80 45.83.2.214 80 extendable
ip nat outside	ip nat inside source list 1 interface s0 overload

NEW QUESTION 207

DRAG DROP - (Topic 1)

Drag and drop the threat-mitigation techniques from the left onto the types of threat or attack they mitigate on the right.

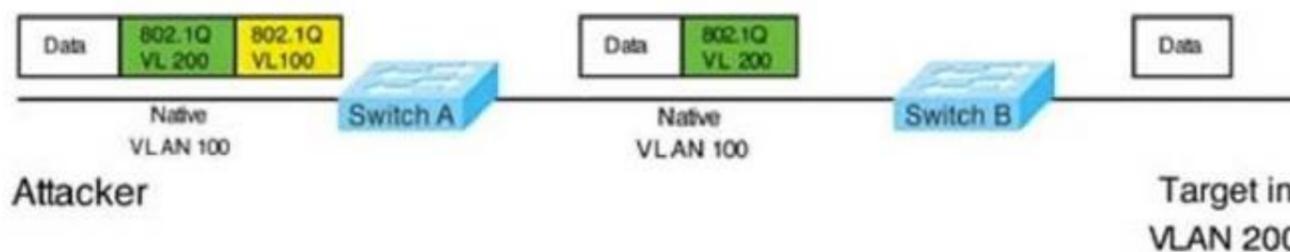
Configure BPDU guard.	802.1q double tagging
Configure dynamic ARP inspection.	ARP spoofing
Configure root guard.	unwanted superior BPDUs
Configure VACL.	unwanted BPDUs on PortFast-enabled interfaces

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Double-Tagging attack:



In this attack, the attacking computer generates frames with two 802.1Q tags. The first tag matches the native VLAN of the trunk port (VLAN 10 in this case), and the second matches the VLAN of a host it wants to attack (VLAN 20). When the packet from the attacker reaches Switch A, Switch A only sees the first VLAN 10 and it matches with its native VLAN 10 so this VLAN tag is removed. Switch A forwards the frame out all links with the same native VLAN 10. Switch B receives the frame with an tag of VLAN 20 so it removes this tag and forwards out to the Victim computer. Note: This attack only works if the trunk (between two switches) has the same native VLAN as the attacker. To mitigate this type of attack, you can use VLAN access control lists (VACLs, which applies to all traffic within a VLAN. We can use VACL to drop attacker traffic to specific victims/servers) or implement Private VLANs. ARP attack (like ARP poisoning/spoofing) is a type of attack in which a malicious actor sends falsified ARP messages over a local area network as ARP allows a gratuitous reply from a host even if an ARP request was not received. This results in the linking of an attacker's MAC address with the IP address of a legitimate computer or server on the network. This is an attack based on ARP which is at Layer 2. Dynamic ARP inspection (DAI) is a security feature that validates ARP packets in a network which can be used to mitigate this type of attack.

NEW QUESTION 209

- (Topic 1)

What are two benefits of controller-based networking compared to traditional networking?

- A. controller-based increases network bandwidth usage, while traditional lightens the load on the network.
- B. controller-based inflates software costs, while traditional decreases individual licensing costs
- C. Controller-based reduces network configuration complexity, while traditional increases the potential for errors
- D. Controller-based provides centralization of key IT function
- E. While traditional requires distributes management function
- F. controller-based allows for fewer network failure, while traditional increases failure rates.

Answer: CD

Explanation:

Cisco DNA Center Device Management

* 3. Monitor the cloud for software update

* 5. Uses CLI templates to apply a consistent configuration to multiple devices at an individual location

* 6. Uses NetFlow to analyse potential security threats throughout the network and take appropriate action on that traffic

Traditional device management

* 2. Manages device configuration on a per-device basis

* 4. Security is managed near the perimeter of the network with firewalls, VPNs, and IPS

? Implements changes via an SSH terminal

NEW QUESTION 214

- (Topic 1)

How do TCP and UDP differ in the way they guarantee packet delivery?

- A. TCP uses checksum, acknowledgement, and retransmissions, and UDP uses checksums only.
- B. TCP uses two-dimensional parity checks, checksums, and cyclic redundancy checks and UDP uses retransmissions only.
- C. TCP uses checksum, parity checks, and retransmissions, and UDP uses acknowledgements only.
- D. TCP uses retransmissions, acknowledgement and parity checks and UDP uses cyclic redundancy checks only.

Answer: A

NEW QUESTION 217

- (Topic 1)

How does HSRP provide first hop redundancy?

- A. It load-balances traffic by assigning the same metric value to more than one route to the same destination in the IP routing table.
- B. It load-balances Layer 2 traffic along the path by flooding traffic out all interfaces configured with the same VLAN.
- C. It forwards multiple packets to the same destination over different routed links in the data path
- D. It uses a shared virtual MAC and a virtual IP address to a group of routers that serve as the default gateway for hosts on a LAN

Answer: D

Explanation:

https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipapp_fhrp/configuration/xr-16/fhp-xr-16-book/fhp-hsrp-mgo.html

NEW QUESTION 219

- (Topic 1)

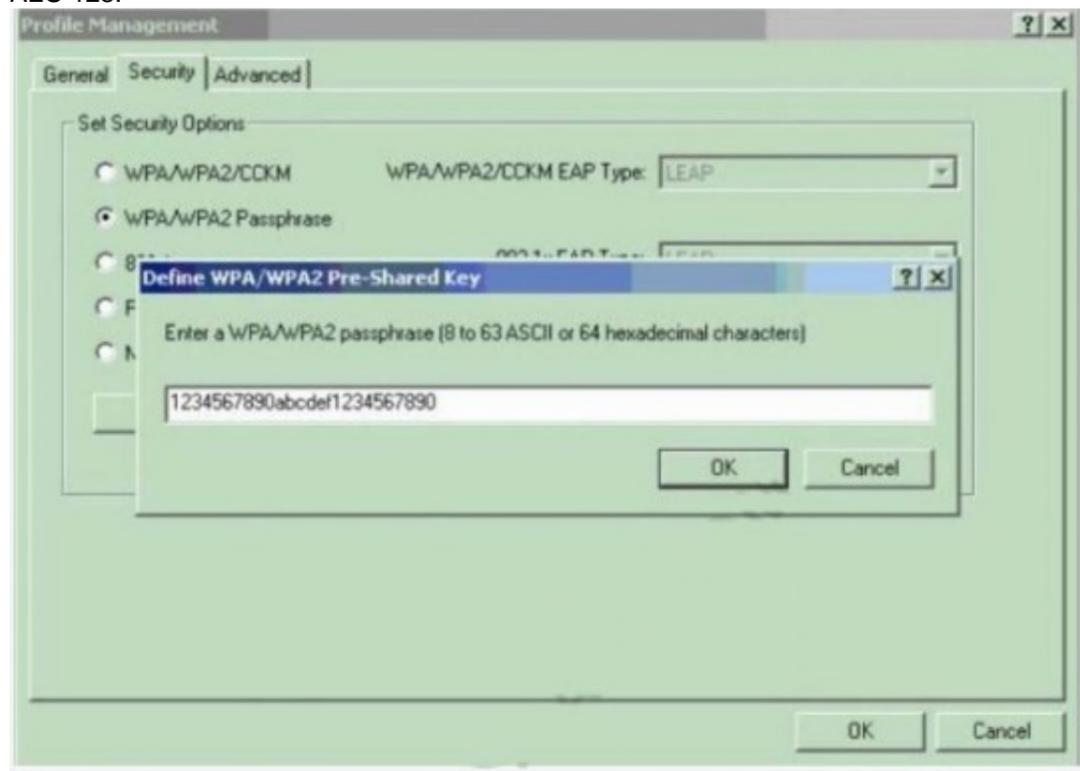
Which type of wireless encryption is used for WPA2 in preshared key mode?

- A. TKIP with RC4
- B. RC4
- C. AES-128
- D. AES-256

Answer: D

Explanation:

We can see in this picture we have to type 64 hexadecimal characters (256 bit) for the WPA2 passphrase so we can deduce the encryption is AES-256, not AES-128.



<https://www.cisco.com/c/en/us/support/docs/wireless-mobility/wireless-lan-wlan/67134-wpa2-config.html>

NEW QUESTION 221

- (Topic 1)

What is the default behavior of a Layer 2 switch when a frame with an unknown destination MAC address is received?

- A. The Layer 2 switch drops the received frame
- B. The Layer 2 switch floods packets to all ports except the receiving port in the given VLAN.
- C. The Layer 2 switch sends a copy of a packet to CPU for destination MAC address learning.
- D. The Layer 2 switch forwards the packet and adds the destination MAC address to its MAC address table

Answer: B

Explanation:

If the destination MAC address is not in the CAM table (unknown destination MAC address), the switch sends the frame out all other ports that are in the same VLAN as the received frame. This is called flooding. It does not flood the frame out the same port on which the frame was received.

NEW QUESTION 223

- (Topic 1)

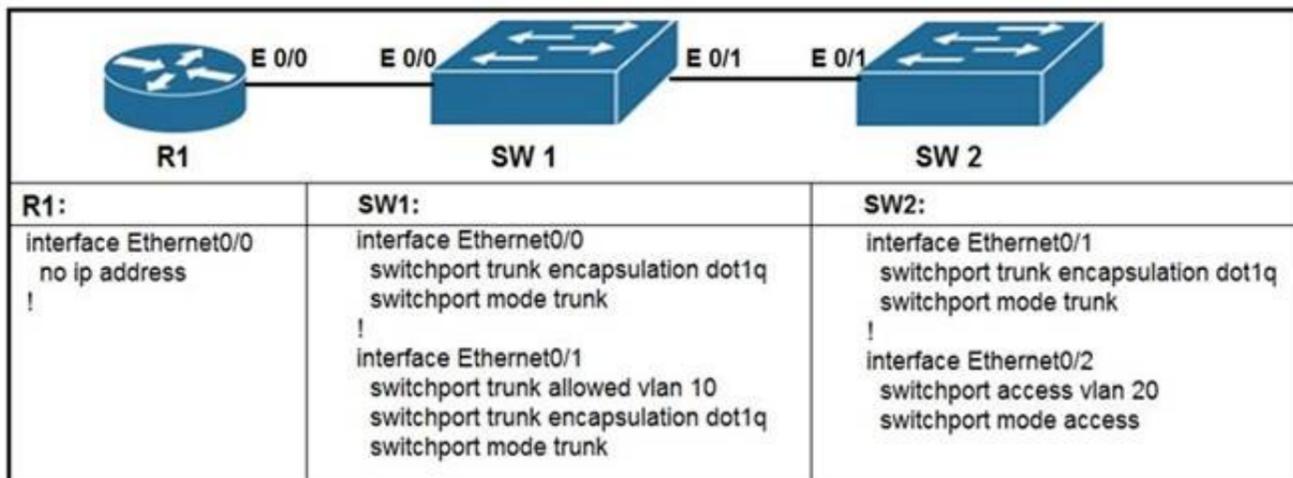
What must be considered when using 802.11n?

- A. It is compatible with 802.11b- and 802.11g-compliant wireless devices
- B. It is used in place of 802.11b/g when many nonoverlapping channels are required
- C. It is susceptible to interference from 2.4 GHz devices such as microwave ovens.
- D. It is chosen over 802.11b/g when a lower-cost solution is necessary

Answer: A

NEW QUESTION 228

- (Topic 1)
 Refer to the exhibit.



What commands are needed to add a subinterface to Ethernet0/0 on R1 to allow for VLAN 20, with IP address 10.20.20.1/24?

- A. R1(config)#interface ethernet0/0 R1(config)#encapsulation dot1q 20R1(config)#ip address 10.20.20.1 255.255.255.0
- B. R1(config)#interface ethernet0/0.20 R1(config)#encapsulation dot1q 20R1(config)#ip address 10.20.20.1 255.255.255.0
- C. R1(config)#interface ethernet0/0.20 R1(config)#ip address 10.20.20.1 255.255.255.0
- D. R1(config)#interface ethernet0/0 R1(config)#ip address 10.20.20.1 255.255.255.0

Answer: B

NEW QUESTION 230

- (Topic 1)
 What criteria is used first during the root port selection process?

- A. local port ID
- B. lowest path cost to the root bridge
- C. lowest neighbor's bridge ID
- D. lowest neighbor's port ID

Answer: B

NEW QUESTION 233

DRAG DROP - (Topic 1)
 Drag the IPv6 DNS record types from the left onto the description on the right.

AAAA	aliases one name to another
CNAME	associates the domain serial number with its owner
NS	correlates a domain with its authoritative name servers
PTR	correlates a host name with an IP address
SOA	supports reverse name lookups

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

[https://ns1.com/resources/dns-types-records-servers-and-queries#:~:text=Address%20Mapping%20record%20\(A%20Record,a%20hostname%20to%20another%20hostname.](https://ns1.com/resources/dns-types-records-servers-and-queries#:~:text=Address%20Mapping%20record%20(A%20Record,a%20hostname%20to%20another%20hostname.)

NEW QUESTION 236

- (Topic 1)
 Which two encoding methods are supported by REST APIs? (Choose two)

- A. YAML
- B. JSON
- C. EBCDIC
- D. SGML
- E. XML

Answer: BE

Explanation:

https://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/2-x/rest_cfg/2_1_x/b_Cisco_APIC_REST_API_Configuration_Guide/b_Cisco_APIC_REST_API_Configuration_Guide_chapter_01.html

Reference:

https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus1000/sw/5_x/rest_api_config/b_Cisco_N1KV_VMware_REST_API_Config_5x/b_Cisco_N1KV_VMware_REST_API_Config_5x_chapter_010.pdf

The Application Policy Infrastructure Controller (APIC) REST API is a programmatic interface that uses REST architecture. The API accepts and returns HTTP (not enabled by default) or HTTPS messages that contain JavaScript Object Notation (JSON) or Extensible Markup Language (XML) documents.

NEW QUESTION 240

- (Topic 1)

Which WAN topology provides a combination of simplicity quality, and availability?

- A. partial mesh
- B. full mesh
- C. point-to-point
- D. hub-and-spoke

Answer: C

NEW QUESTION 241

- (Topic 1)

What is the function of a hub-and-spoke WAN topology?

- A. allows access restrictions to be implemented between subscriber sites.
- B. provides direct connections between subscribers
- C. supports Layer 2 VPNs
- D. supports application optimization

Answer: B

NEW QUESTION 243

- (Topic 1)

What is the function of a controller in controller-based networking?

- A. It serves as the centralized management point of an SDN architecture.
- B. It centralizes the data plane for the network.
- C. It is the card on a core router that maintains all routing decisions for a campus.
- D. It is a pair of core routers that maintain all routing decisions for a campus

Answer: A

NEW QUESTION 246

- (Topic 1)

Refer to the exhibit.

```

R1# show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, * - candidate default
       U - per-user static route, o - ODR
Gateway of last resort is not set
C    1.0.0.0/8 is directly connected, Loopback0
     10.0.0.0/8 is variably subnetted, 4 subnets, 2 masks
O    10.0.1.3/32 [110/100] via 10.0.1.3, 00:39:08, Serial0
C    10.0.1.0/24 is directly connected, Serial0
O    10.0.1.5/32 [110/5] via 10.0.1.50, 00:39:08, Serial0
O    10.0.1.4/32 [110/10] via 10.0.1.4, 00:39:08, Serial0
    
```

What is the next hop address for traffic that is destined to host 10.0.1.5?

- A. 10.0.1.3
- B. 10.0.1.50
- C. 10.0.1.4
- D. Loopback D

Answer: B

NEW QUESTION 249

- (Topic 1)

An engineer is asked to protect unused ports that are configured in the default VLAN on a switch. Which two steps will fulfill the request? (Choose two)

- A. Configure the ports in an EtherChannel.

- B. Administratively shut down the ports
- C. Configure the port type as access and place in VLAN 99
- D. Configure the ports as trunk ports
- E. Enable the Cisco Discovery Protocol

Answer: BC

NEW QUESTION 250

- (Topic 1)

What is a difference between local AP mode and FlexConnect AP mode?

- A. Local AP mode creates two CAPWAP tunnels per AP to the WLC
- B. FlexConnect AP mode fails to function if the AP loses connectivity with the WLC
- C. FlexConnect AP mode bridges the traffic from the AP to the WLC when local switching is configured
- D. Local AP mode causes the AP to behave as if it were an autonomous AP

Answer: A

NEW QUESTION 251

- (Topic 1)

Which device performs stateful inspection of traffic?

- A. firewall
- B. switch
- C. access point
- D. wireless controller

Answer: A

NEW QUESTION 255

- (Topic 1)

How will Link Aggregation be Implemented on a Cisco Wireless LAN Controller?

- A. One functional physical port is needed to pass client traffic.
- B. The EthernetChannel must be configured in "mode active".
- C. When enabled, the WLC bandwidth drops to 500 Mbps.
- D. To pass client traffic, two or more ports must be configured.

Answer: A

Explanation:

https://www.cisco.com/c/en/us/td/docs/wireless/controller/7-5/configuration-guide/b_cg75/b_cg75_chapter_0100010.html

NEW QUESTION 259

- (Topic 1)

Which MAC address is recognized as a VRRP virtual address?

- A. 0000.5E00.010a
- B. 0005.3711.0975
- C. 0000.0C07.AC99
- D. 0007.C070/AB01

Answer: A

Explanation:

With VRRP, the virtual router's MAC address is 0000.5E00.01xx , in which xx is the VRRP group.

NEW QUESTION 261

- (Topic 1)

What does a switch use to build its MAC address table?

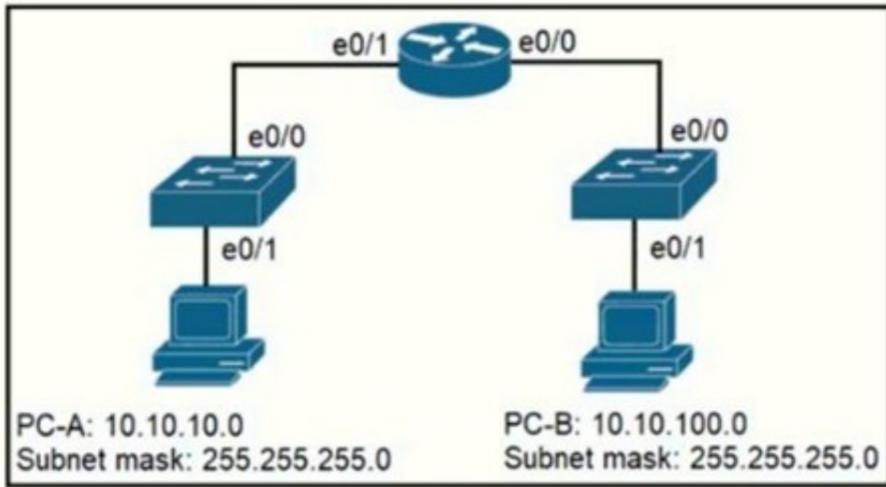
- A. VTP
- B. DTP
- C. egress traffic
- D. ingress traffic

Answer: D

NEW QUESTION 265

- (Topic 1)

Refer to the exhibit.



When PC-A sends traffic to PC-B, which network component is in charge of receiving the packet from PC-A verifying the IP addresses, and forwarding the packet to PC-B?

- A. Layer 2 switch
- B. Router
- C. Load balancer
- D. firewall

Answer: B

Explanation:

PC-A and PC-B are not in the same network. Switches send traffic in layer 2 and within the same VLA while routers route traffic to different subnet and at layer 3.

NEW QUESTION 268

- (Topic 1)

What is the maximum bandwidth of a T1 point-to-point connection?

- A. 1.544 Mbps
- B. 2.048 Mbps
- C. 34.368 Mbps
- D. 43.7 Mbps

Answer: A

Explanation:

[https://www.bsimplify.com/what-is-point-to-point-t1/#:~:text=A%20Point%20to%20Point%20T1,data%20speeds%20\(1.54Mbps\).](https://www.bsimplify.com/what-is-point-to-point-t1/#:~:text=A%20Point%20to%20Point%20T1,data%20speeds%20(1.54Mbps).)

Point to Point T1

A Point to Point T1 service is a private data connection securely connecting two or more locations with T1 data speeds (1.54Mbps).

NEW QUESTION 271

- (Topic 1)

A network administrator is asked to configure VLANS 2, 3 and 4 for a new implementation. Some ports must be assigned to the new VLANS with unused remaining. Which action should be taken for the unused ports?

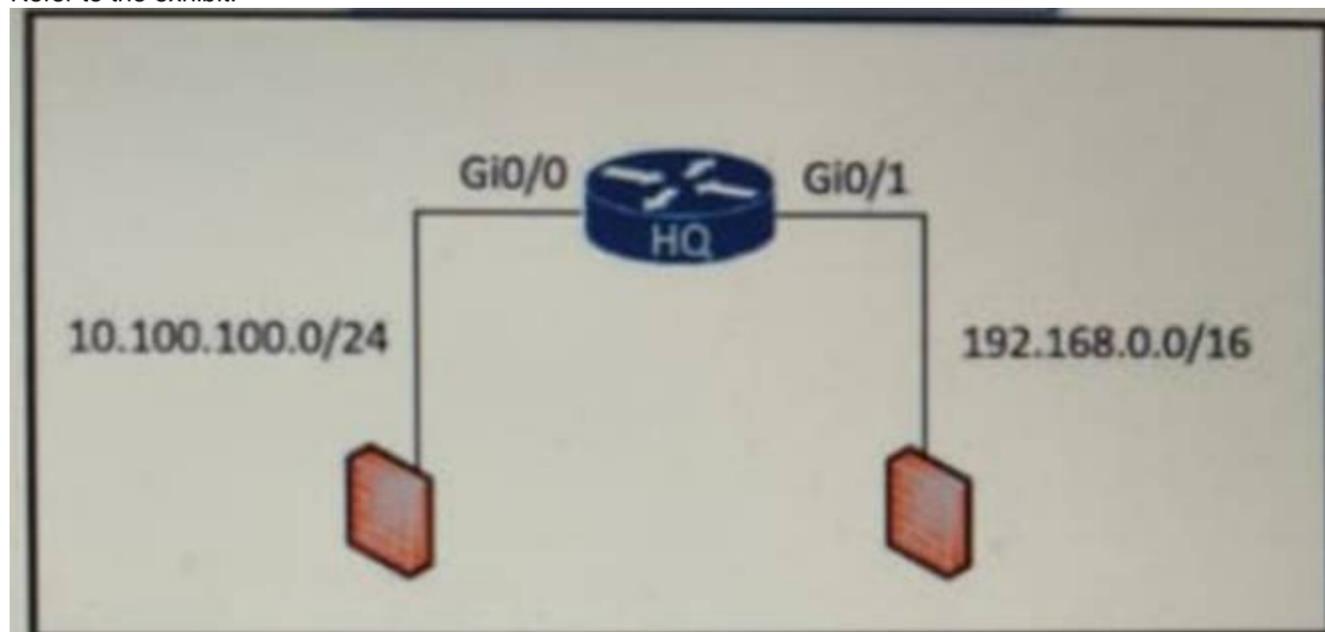
- A. configure port in the native VLAN
- B. configure ports in a black hole VLAN
- C. configure in a nondefault native VLAN
- D. configure ports as access ports

Answer: B

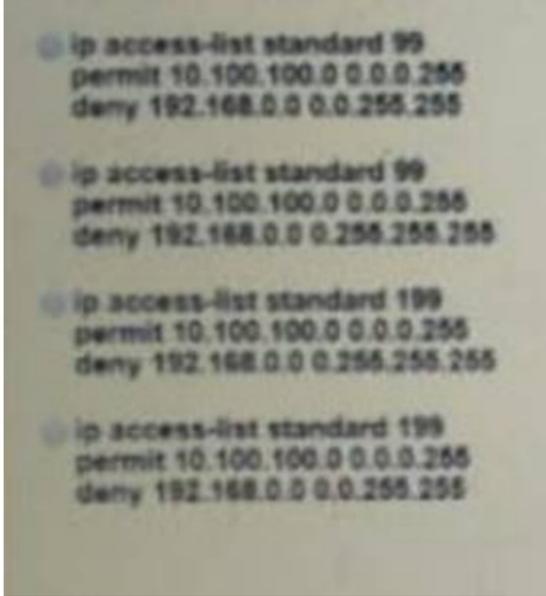
NEW QUESTION 275

- (Topic 1)

Refer to the exhibit.



An access list is required to permit traffic from any host on interface G0/0 and deny traffic from interface G/0/1. Which access list must be applied?



- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: A

NEW QUESTION 278

- (Topic 1)

Which attribute does a router use to select the best path when two or more different routes to the same destination exist from two different routing protocols.

- A. dual algorithm
- B. metric
- C. administrative distance
- D. hop count

Answer: C

Explanation:

Administrative distance is the feature used by routers to select the best path when there are two or more different routes to the same destination from different routing protocols. Administrative distance defines the reliability of a routing protocol.

NEW QUESTION 279

- (Topic 1)

What software defined architecture plane assists network devices with making packet- forwarding decisions by providing Layer 2 reachability and Layer 3 routing information?

- A. data plane
- B. control plane
- C. policy plane
- D. management plane

Answer: B

NEW QUESTION 284

- (Topic 1)

Which output displays a JSON data representation?

- A. {
 "response": {
 "taskId": {},
 "url": "string"
 };
 "version": "string"
 }
- B. {
 "response" - {
 "taskId" - {},
 "url" - "string"
 },
 "version" - "string"
 }
- C. {
 "response": {
 "taskId": {},
 "url": "string"
 },
 "version": "string"
 }
- D. {
 "response". {
 "taskId". {};
 "url". "string"
 };
 "version". "string"
 }

- A. Option A
 B. Option B
 C. Option C
 D. Option D

Answer: C

Explanation:

JSON data is written as name/value pairs. A name/value pair consists of a field name (in double quotes), followed by a colon, followed by a value: "name": "Mark". JSON can use arrays. Array values must be of type string, number, object, array, boolean or null. For example: {"name": "John", "age": 30, "cars": ["Ford", "BMW", "Fiat"]} JSON can have empty object like "taskId": {}

NEW QUESTION 287

- (Topic 1)

What criteria is used first during the root port selection process?

- A. local port ID
 B. lowest path cost to the root bridge
 C. lowest neighbor's bridge ID
 D. lowest neighbor's port ID

Answer: B

NEW QUESTION 288

- (Topic 1)

Which configuration ensures that the switch is always the root for VLAN 750?

- A. Switch(config)#spanning-tree vlan 750 priority 38003685
 B. Switch(config)#spanning-tree vlan 750 root primary
 C. Switch(config)#spanning-tree vlan 750 priority 614440
 D. Switch(config)#spanning-tree vlan 750 priority 0

Answer: D

Explanation:

Although the spanning-tree vlan 10 root primary command will ensure a switch will have a bridge priority value lower than other bridges introduced to the network, the spanning-tree vlan 10 priority 0 command ensures the bridge priority takes precedence over all other priorities.

NEW QUESTION 292

- (Topic 1)

By default, how Does EIGRP determine the metric of a route for the routing table?

- A. it uses the bandwidth and delay values of the path to calculate the route metric
- B. it uses a default metric of 10 for all routes that are learned by the router
- C. it uses a reference Bandwidth and the actual bandwidth of the connected link to calculate the route metric
- D. it counts the number of hops between the receiving and destination routers and uses that value as the metric

Answer: A

NEW QUESTION 295

- (Topic 1)

When a site-to-site VPN is configured, which IPsec mode provides encapsulation and encryption of the entire original P packet?

- A. IPsec tunnel mode with AH
- B. IPsec transport mode with AH
- C. IPsec tunnel mode with ESP
- D. IPsec transport mode with ESP

Answer: C

Explanation:

"Encapsulating Security Payload...Unlike Authentication Header (AH), ESP in transport mode does not provide integrity and authentication for the entire IP packet. However, in Tunnel Mode, where the entire original IP packet is encapsulated with a new packet header added, ESP protection is afforded to the whole inner IP packet (including the inner header) while the outer header (including any outer IPv4 options or IPv6 extension headers) remains unprotected.

NEW QUESTION 296

- (Topic 1)

Which WLC port connects to a switch to pass normal access-point traffic?

- A. redundancy
- B. console
- C. distribution system
- D. service

Answer: C

NEW QUESTION 298

- (Topic 1)

How does Cisco DNA Center gather data from the network?

- A. Network devices use different services like SNMP, syslog, and streaming telemetry to send data to the controller
- B. Devices establish an IPsec tunnel to exchange data with the controller
- C. Devices use the call-home protocol to periodically send data to the controller.
- D. The Cisco CU Analyzer tool gathers data from each licensed network device and streams it to the controller.

Answer: A

NEW QUESTION 303

- (Topic 1)

How does QoS optimize voice traffic?

- A. reducing bandwidth usage
- B. by reducing packet loss
- C. by differentiating voice and video traffic
- D. by increasing jitter

Answer: C

NEW QUESTION 307

- (Topic 1)

Which two actions are performed by the Weighted Random Early Detection mechanism? (Choose two)

- A. It drops lower-priority packets before it drops higher-priority packets
- B. It can identify different flows with a high level of granularity
- C. It guarantees the delivery of high-priority packets
- D. It can mitigate congestion by preventing the queue from filling up
- E. it supports protocol discovery

Answer: AD

Explanation:

Weighted Random Early Detection (WRED) is just a congestion avoidance mechanism. WRED drops packets selectively based on IP precedence. Edge routers assign IP precedences to packets as they enter the network. When a packet arrives, the following events occur:

* 1. The average queue size is calculated. 2. If the average is less than the minimum queue threshold, the arriving packet is queued. 3. If the average is between the minimum queue threshold for that type of traffic and the maximum threshold for the interface, the packet is either dropped or queued, depending on the packet drop probability for that type of traffic. 4. If the average queue size is greater than the maximum threshold, the packet is dropped. WRED reduces the chances of tail drop (when the queue is full, the packet is dropped) by selectively dropping packets when the output interface begins to show signs of congestion (thus it can mitigate congestion by preventing the queue from filling up). By dropping some packets early rather than waiting until the queue is full, WRED avoids dropping large numbers of packets at once and minimizes the chances of global synchronization. Thus, WRED allows the transmission line to be usefully at all times. WRED generally drops packets selectively based on IP precedence. Packets with a higher IP precedence are less likely to be dropped than packets with a lower precedence. Thus, the higher the priority of a packet, the higher the probability that the packet will be delivered

NEW QUESTION 312

- (Topic 1)

Refer to the exhibit.

```
R2#show ip nat translations
Pro Inside global      Inside local  Outside local  Outside global
tcp 172.23.104.3:43268 10.4.4.4:43268 172.23.103.10:23 172.23.103.10:23
tcp 172.23.104.4:45507 10.4.4.5:45507 172.23.103.10:80 172.23.103.10:80
```

An engineer configured NAT translations and has verified that the configuration is correct. Which IP address is the source IP?

- A. 10.4.4.4
- B. 10.4.4.5
- C. 172.23.103.10
- D. 172.23.104.4

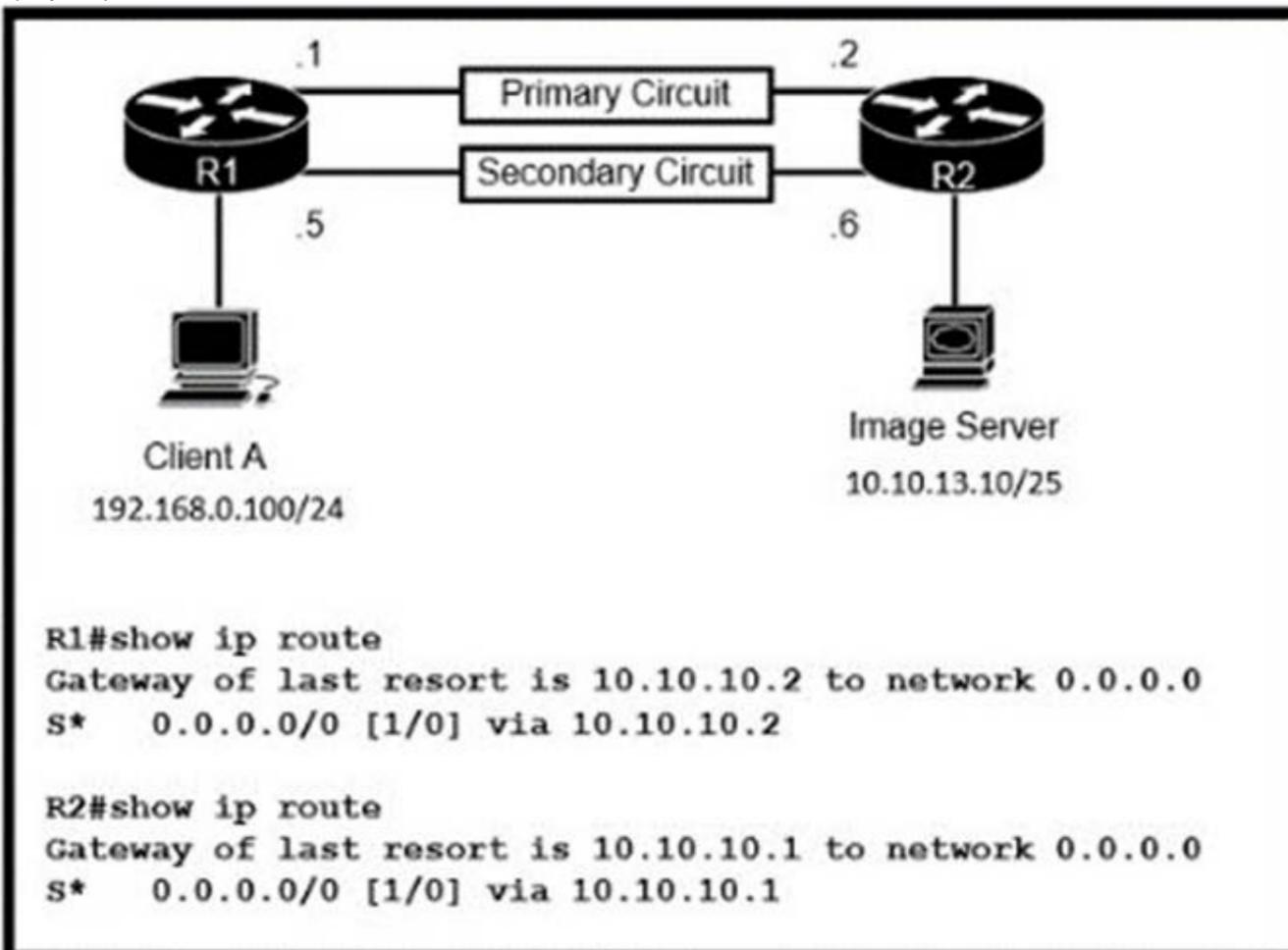
Answer: D

Explanation:

NAT is used to send a packet to the outside network, using a public IP address to make it routable. The NAT logic is "inside-to-outside" FIRST and "outside-to-inside" THEN. This way, configuring NAT means "choosing a public IP address" for any outbound packet" IN THE FIRST PLACE, where "public IP address" translates to "inside global address". Among the given answers, the only inside global address is 172.23.104.4.

NEW QUESTION 314

- (Topic 1)



Refer to the exhibit Routers R1 and R2 have been configured with their respective LAN interfaces The two circuits are operational and reachable across WAN Which command set establishes failover redundancy if the primary circuit goes down?

- R1(config)#ip route 10.10.13.10 255.255.255.255 10.10.10.2
R2(config)#ip route 192.168.0.100 255.255.255.255 10.10.10.1
- R1(config)#ip route 0.0.0.0 0.0.0.0 10.10.10.6 2
R2(config)#ip route 0.0.0.0 0.0.0.0 10.10.10.5 2
- R1(config)#ip route 10.10.13.10 255.255.255.255 10.10.10.6
R2(config)#ip route 192.168.0.100 255.255.255.255 10.10.10.5
- R1(config)#ip route 0.0.0.0 0.0.0.0 10.10.10.6
R2(config)#ip route 0.0.0.0 0.0.0.0 10.10.10.5

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

NEW QUESTION 317

- (Topic 1)

What facilitates a Telnet connection between devices by entering the device name?

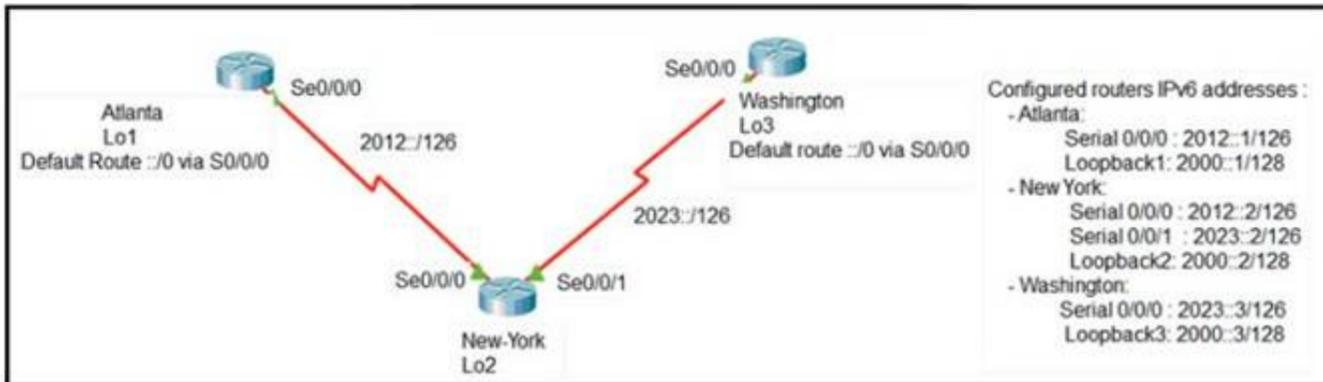
- A. SNMP
- B. DNS lookup
- C. syslog
- D. NTP

Answer: B

NEW QUESTION 321

- (Topic 1)

Refer to Exhibit.



The loopback1 interface of the Atlanta router must reach the loopback3 interface of the Washington router. Which two static host routes must be configured on the NEW York router? (Choose two)

- A. ipv6 route 2000::1/128 2012::1
- B. ipv6 route 2000::3/128 2023::3
- C. ipv6 route 2000::3/128 s0/0/0
- D. ipv6 route 2000::1/128 2012::2
- E. ipv6 route 2000::1/128 s0/0/1

Answer: AB

NEW QUESTION 322

DRAG DROP - (Topic 1)

Drag and drop the statement about networking from the left into the Corresponding networking types on the right. Not all statements are used.

This type deploys a consistent configuration across multiple devices.	Controller-Based Networking
A distributed control plane is needed.	
This type requires a distributed management plane.	Traditional Networking
Southbound APIs are used to apply configurations.	
Northbound APIs interact with end devices.	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

This type deploys a consistent configuration across multiple devices.	Controller-Based Networking
A distributed control plane is needed.	
This type requires a distributed management plane.	Traditional Networking
Southbound APIs are used to apply configurations.	
Northbound APIs interact with end devices.	

NEW QUESTION 323

- (Topic 1)

Where does the configuration reside when a helper address is configured to support DHCP?

- A. on the router closest to the server
- B. on the router closest to the client
- C. on every router along the path
- D. on the switch trunk interface

Answer: B

NEW QUESTION 324

- (Topic 1)

Which technology allows for multiple operating systems to be run on a single host computer?

- A. virtual routing and forwarding
- B. network port ID visualization
- C. virtual device contexts
- D. server visualization

Answer: D

NEW QUESTION 326

SIMULATION - (Topic 5)

Physical connectivity is implemented between the two Layer 2 switches, and the network connectivity between them must be configured.

- * 1. Configure an LACP EtherChannel and number it as 44; configure it between switches SW1 and SW2 using interfaces Ethernet0/0 and Ethernet0/1 on both sides. The LACP mode must match on both ends.
- * 2. Configure the EtherChannel as a trunk link.
- * 3. Configure the trunk link with 802.1q tags.
- * 4. Configure VLAN 'MONITORING' as the untagged VLAN of the EtherChannel.

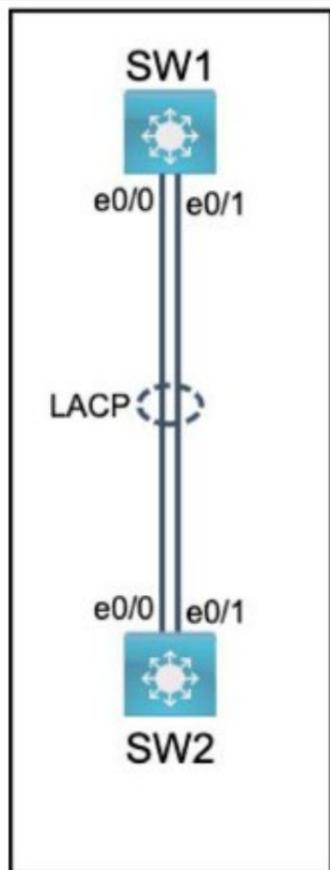
=====

Guidelines

This is a lab item in which tasks will be performed on virtual devices.

- Refer to the Tasks tab to view the tasks for this lab item.

- Refer to the Topology tab to access the device console(s) and perform the tasks.
- Console access is available for all required devices by clicking the device icon or using the tab(s) above the console window.
- All necessary preconfigurations have been applied.
- Do not change the enable password or hostname for any device.
- Save your configurations to NVRAM before moving to the next item.
- Click Next at the bottom of the screen to submit this lab and move to the next question.
- When Next is clicked, the lab closes and cannot be reopened.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

To configure an LACP EtherChannel and number it as 44, configure it between switches SW1 and SW2 using interfaces Ethernet0/0 and Ethernet0/1 on both sides, configure the EtherChannel as a trunk link, configure the trunk link with 802.1q tags, and configure VLAN 'MONITORING' as the untagged VLAN of the EtherChannel, you need to follow these steps:

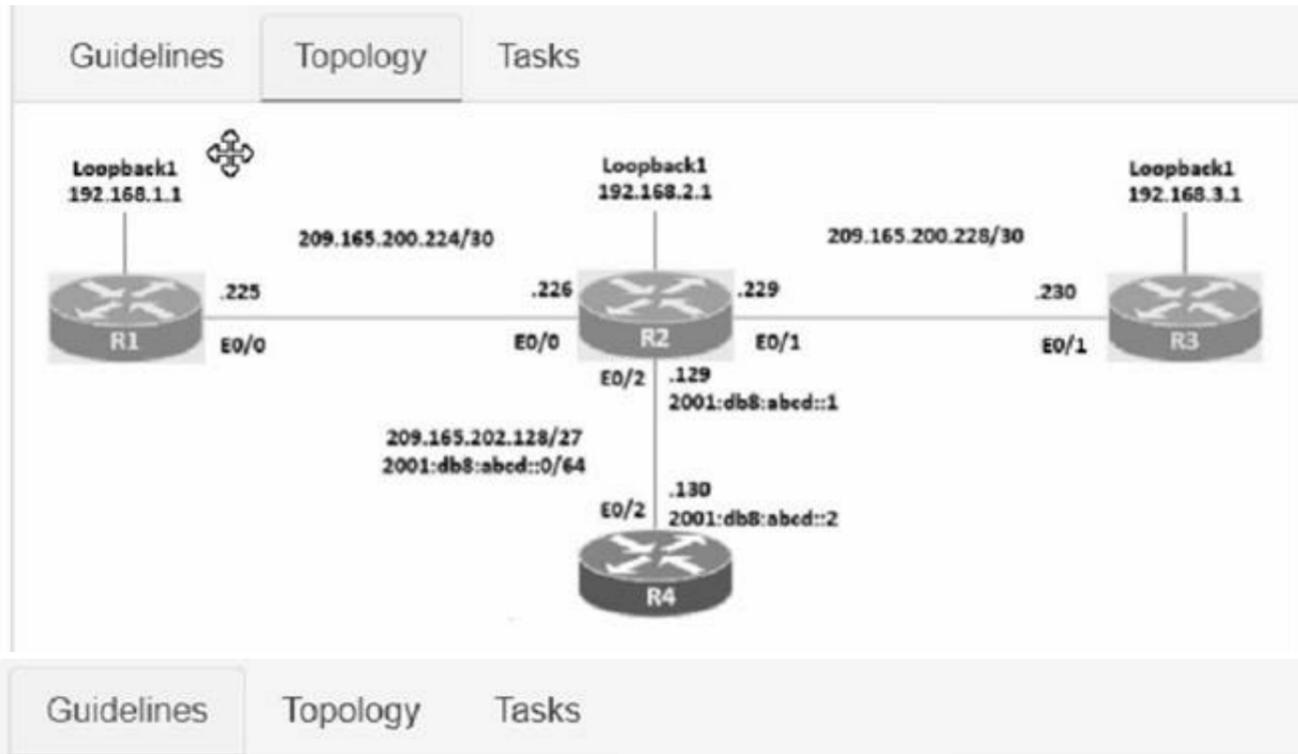
- ? On both SW1 and SW2, enter the global configuration mode by using the configure terminal command.
- ? On both SW1 and SW2, select the two interfaces that will form the EtherChannel by using the interface range ethernet 0/0 - 1 command. This will enter the interface range configuration mode.
- ? On both SW1 and SW2, set the protocol to LACP by using the channel-protocol lacp command.
- ? On both SW1 and SW2, assign the interfaces to an EtherChannel group number 44 by using the channel-group 44 mode active command. This will create a logical interface named Port-channel44 and set the LACP mode to active on both ends. The LACP mode must match on both ends for the EtherChannel to form.
- ? On both SW1 and SW2, exit the interface range configuration mode by using the exit command.
- ? On both SW1 and SW2, enter the Port-channel interface configuration mode by using the interface port-channel 44 command.
- ? On both SW1 and SW2, configure the Port-channel interface as a trunk link by using the switchport mode trunk command.
- ? On both SW1 and SW2, configure the Port-channel interface to use 802.1q tags for VLAN identification by using the switchport trunk encapsulation dot1q command.
- ? On both SW1 and SW2, configure VLAN 'MONITORING' as the untagged VLAN of the Port-channel interface by using the switchport trunk native vlan MONITORING command.
- ? On both SW1 and SW2, exit the Port-channel interface configuration mode by using the exit command.
- ? On both SW1 and SW2, save the configuration to NVRAM by using the copy running-config startup-config command.

NEW QUESTION 331

SIMULATION - (Topic 5)

Connectivity between four routers has been established. IP connectivity must be configured in the order presented to complete the implementation. No dynamic routing protocols are included.

- * 1. Configure static routing using host routes to establish connectivity from router R3 to the router R1 Loopback address using the source IP of 209.165.200.230.
- * 2. Configure an IPv4 default route on router R2 destined for router R4.
- * 3. Configure an IPv6 default router on router R2 destined for router R4.



Guidelines

This is a lab item in which tasks will be performed on virtual devices.

- Refer to the **Tasks** tab to view the tasks for this lab item.
- Refer to the **Topology** tab to access the device console(s) and perform the tasks.
- Console access is available for all required devices by clicking the device icon or using the tab(s) above the console window.
- All necessary preconfigurations have been applied.
- Do not change the enable password or hostname for any device.
- **Save your configurations** to NVRAM before moving to the next item.
- Click **Next** at the bottom of the screen to submit this lab and move to the next question.
- When **Next** is clicked, the lab closes and cannot be reopened.

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer as below configuration:

```
* 1.- on R3
config terminal
ip route 192.168.1.1 255.255.255.255 209.165.200.229
end
copy running start

* 2.- on R2
config terminal
ip route 0.0.0.0 0.0.0.0 209.165.202.130
end
copy running start

* 3.- on R2
config terminal
ipv6 route ::/0 2001:db8:abcd::2 end
copy running start
```

NEW QUESTION 335
SIMULATION - (Topic 5)

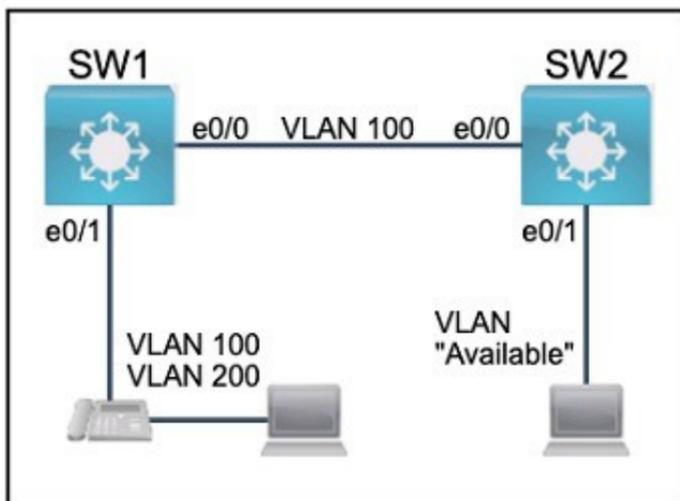
Guidelines

This is a lab item in which tasks will be performed on virtual devices.

- Refer to the **Tasks** tab to view the tasks for this lab item.
- Refer to the **Topology** tab to access the device console(s) and perform the tasks.
- Console access is available for all required devices by clicking the device icon or using the tab(s) above the console window.
- All necessary preconfigurations have been applied.
- Do not change the enable password or hostname for any device.
- **Save your configurations** to NVRAM before moving to the next item.
- Click **Next** at the bottom of the screen to submit this lab and move to the next question.
- When **Next** is clicked, the lab closes and cannot be reopened.

All physical cabling between the two switches is installed. Configure the network connectivity between the switches using the designated VLANs and interfaces.

- * 1. Configure VLAN 100 named Compute and VLAN 200 named Telephony where required for each task.
- * 2. Configure Ethernet0/1 on SW2 to use the existing VLAN named Available.
- * 3. Configure the connection between the switches using access ports.
- * 4. Configure Ethernet0/1 on SW1 using data and voice VLANs.
- * 5. Configure Ethernet0/1 on SW2 so that the Cisco proprietary neighbor discovery protocol is turned off for the designated interface only.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer as below configuration:

```

on sw1 enable conf t vlan 100
name Compute vlan 200
name Telephony int e0/1
switchport voice vlan 200 switchport access vlan 100 int e0/0
switchport mode access do wr
on sw2
Vlan 99
Name Available Int e0/1
Switchport access vlan 99 do wr

```

NEW QUESTION 336

SIMULATION - (Topic 5)

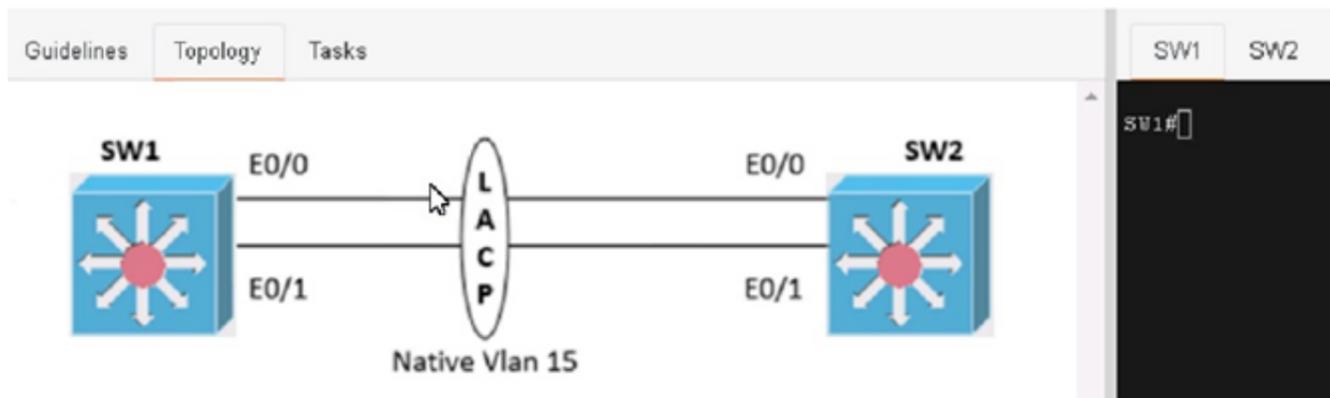
Physical connectivity is implemented between the two Layer 2 switches, and the network connectivity between them must be configured

- * 1. Configure an LACP EtherChannel and number it as 1; configure it between switches SW1 and SW2 using interfaces Ethernet0/0 and Ethernet0/1 on both sides. The LACP mode must match on both ends
- * 2 Configure the EtherChannel as a trunk link.
- * 3. Configure the trunk link with 802.1 q tags.
- * 4. Configure the native VLAN of the EtherChannel as VLAN 15.

Guidelines

This is a lab item in which tasks will be performed on virtual devices.

- Refer to the **Tasks** tab to view the tasks for this lab item.
- Refer to the **Topology** tab to access the device console(s) and perform the tasks.
- Console access is available for all required devices by clicking the device icon or using the tab(s) above the console window.
- All necessary preconfigurations have been applied.
- Do not change the enable password or hostname for any device.
- **Save your configurations** to NVRAM before moving to the next item.
- Click **Next** at the bottom of the screen to submit this lab and move to the next question.
- When **Next** is clicked, the lab closes and cannot be reopened.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer as below configuration:

On SW1:

```
conf terminal vlan 15
exit
interface range eth0/0 - 1 channel-group 1 mode active exit
interface port-channel 1
switchport trunk encapsulation dot1q switchport mode trunk
switchport trunk native vlan 15 end
copy run start
```

on SW2:

```
conf terminal
vlan 15 exit
interface range eth0/0 - 1 channel-group 1 mode active exit
interface port-channel 1
switchport trunk encapsulation dot1q switchport mode trunk
switchport trunk native vlan 15 end
copy run start
```

NEW QUESTION 340

- (Topic 4)

Which is a fact related to FTP?

- A. It uses block numbers to identify and mitigate data-transfer errors
- B. It always operates without user authentication
- C. It relies on the well-known UDP port 69.
- D. It use two separate connections for control and data traffic

Answer: D

NEW QUESTION 343

- (Topic 4)

What are two differences between WPA2 and WPA3 wireless security? (Choose two.)

- A. WPA3 um AES for stronger protection than WPA2 which uses SAE
- B. WPA2 uses 1 M-bit key encryption and WPA3 requires 256-brt key encryption
- C. WPA3 uses AES for stronger protection than WPA2 which uses TKIP WPA3 uses
- D. SAE tor stronger protection than WPA2 which uses AES
- E. WPA2 uses 12B-M key encryption and WPA3 supports 128 bit and 192 bit key encryption

Answer: CE

NEW QUESTION 344

- (Topic 4)

What is a similarity OM3 and OM4 fiber optical cable?

- A. Both have a 62.5 micron core diameter.
- B. Both have a 50 micron core diameter.
- C. Both have a 100 micron core diameter.
- D. Both have a 9 micron core diameter.

Answer: B

NEW QUESTION 345

DRAG DROP - (Topic 4)

Drag and drop the characteristic from the left onto the IPv6 address type on the right.

provides one-to-many communications	Global Unicast Address
has a unicast source sent to a group	
enables aggregation of routing prefixes	Multicast
is routable and reachable via the Internet	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

provides one-to-many communications	Global Unicast Address
has a unicast source sent to a group	
enables aggregation of routing prefixes	Multicast
is routable and reachable via the Internet	

NEW QUESTION 346

- (Topic 4)

What is a link-local all-nodes IPv6 multicast address?

- A. ff02:0:0:0:0:0:0:1
- B. 2004:31c:73d9:683e:255::
- C. ffe:034:0dd:45d6:789e::
- D. fe80:4433:034:0dd::2

Answer: D

NEW QUESTION 349

- (Topic 4)

Refer to the exhibit.

```
access-list 10 permit 10.0.0.0 0.0.0.255

interface Serial0

ip access-list 10 in
```

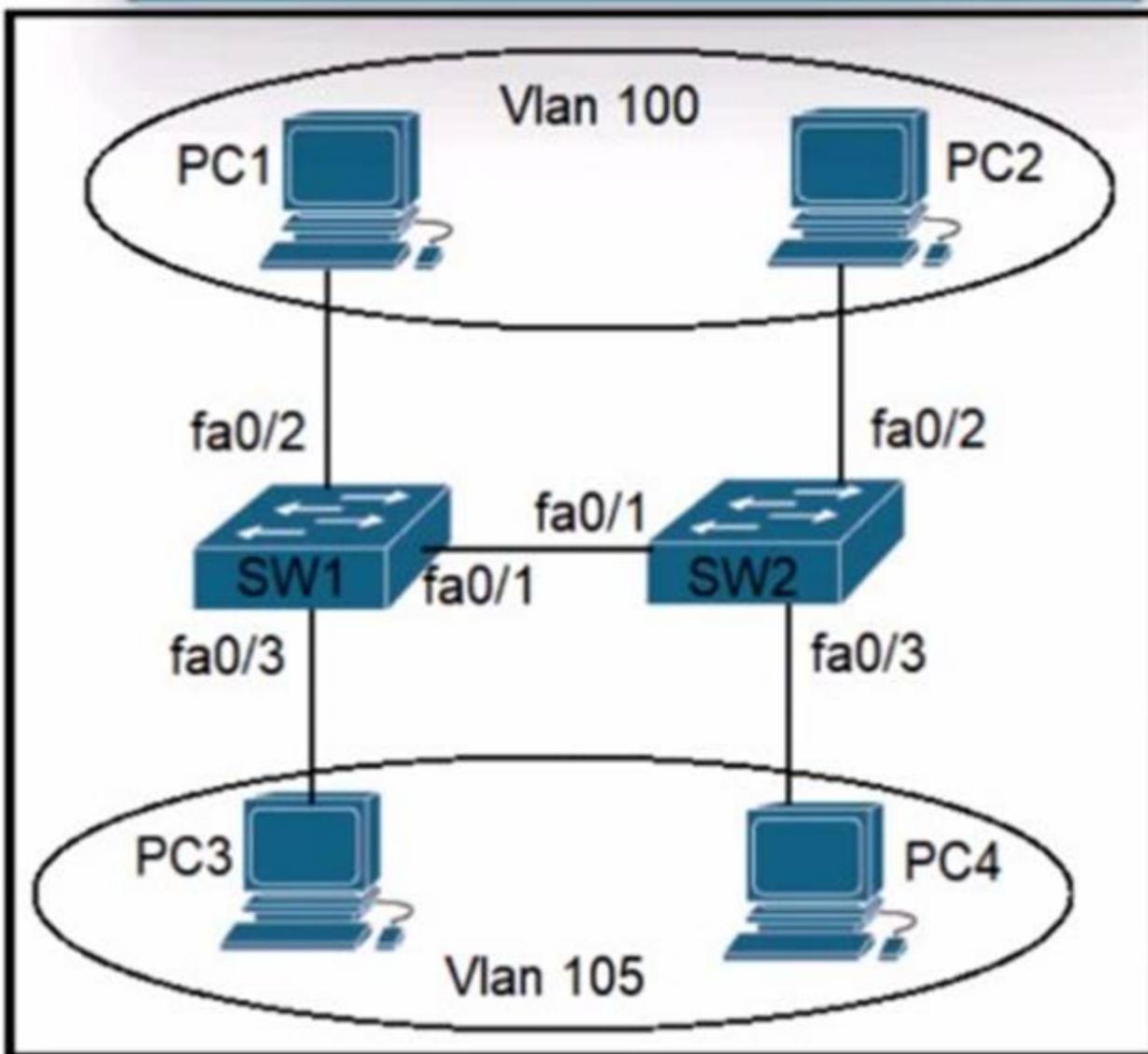
A network administrator must permit traffic from the 10.10.0.0/24 subnet to the WAN on interlace Seria10. What is the effect of the configuration as the administrator applies the command?

- A. The permit command fails and returns an error code.
- B. The router accepts all incoming traffic to Seria10 with the last octet of the source IP set to 0.
- C. The sourced traffic from IP range 10.0.0.0 -10.0.0.255 is allowed on Seria10.
- D. The router fails to apply the access list to the interface.

Answer: C

NEW QUESTION 350

- (Topic 4)



- A)


```
Switch(config-if)#switchport mode dynamic
Switch(config-if)#switchport access vlan 100,105
Switch(config-if)#switchport trunk native vlan 1
```
- B)


```
Switch(config-if)#switchport mode access
Switch(config-if)#switchport trunk encapsulation dot1q
Switch(config-if)#switchport access vlan 100,105
Switch(config-if)#switchport trunk native vlan 3
```

C)

```
Switch(config-if)#switchport mode trunk
Switch(config-if)#switchport trunk encapsulation isl
Switch(config-if)#switchport trunk allowed vlan 100,105
Switch(config-if)#switchport trunk native vlan 1
```

D)

```
Switch(config-if)#switchport mode trunk
Switch(config-if)#switchport trunk encapsulation dot1q
Switch(config-if)#switchport trunk allowed vlan 100,105
Switch(config-if)#switchport trunk native vlan 3
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

NEW QUESTION 353

- (Topic 4)

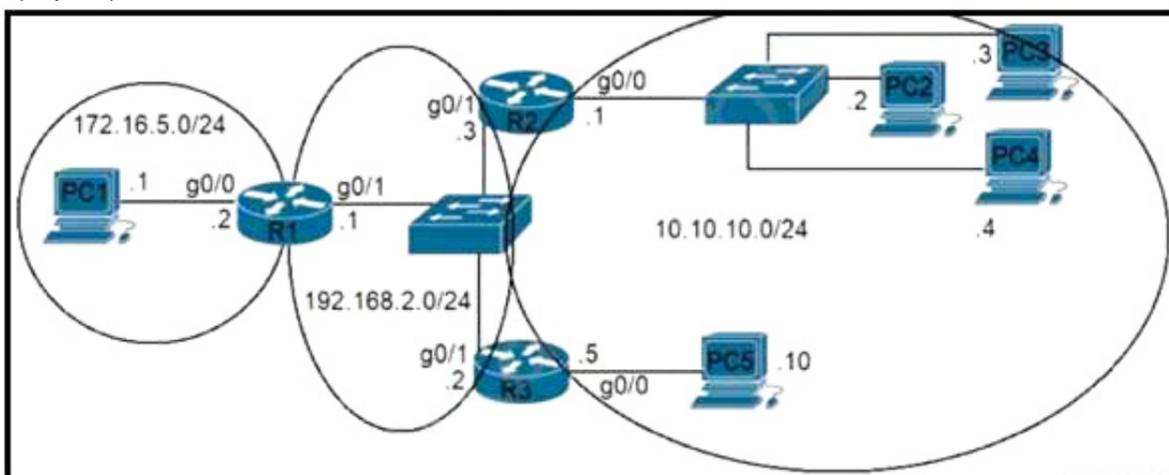
Which cipher is supported for wireless encryption only with the WPA2 standard?

- A. AES256
- B. AES
- C. RC4
- D. SHA

Answer: B

NEW QUESTION 358

- (Topic 4)



Refer to the exhibit. The router R1 is in the process of being configured. Routers R2 and R3 are configured correctly for the new environment. Which two commands must be configured on R1 for PC1 to communicate to all PCs on the 10.10.10.0/24 network? (Choose two.)

- A. ip route 10.10.10.0 255.255.255.0 192.168.2.3
- B. ip route 10.10.10.10 255.255.255.255 192.168.2.2
- C. ip route 10.10.10.10 255.255.255.255 g0/1
- D. ip route 10.10.10.8 255.255.255.248 g0/1
- E. ip route 10.10.10.0 255.255.255.248 192.168.2.2

Answer: AE

NEW QUESTION 361

- (Topic 4)

Which 802.11 frame type is Association Response?

- A. management
- B. control
- C. action
- D. protected frame

Answer: A

NEW QUESTION 364

- (Topic 4)

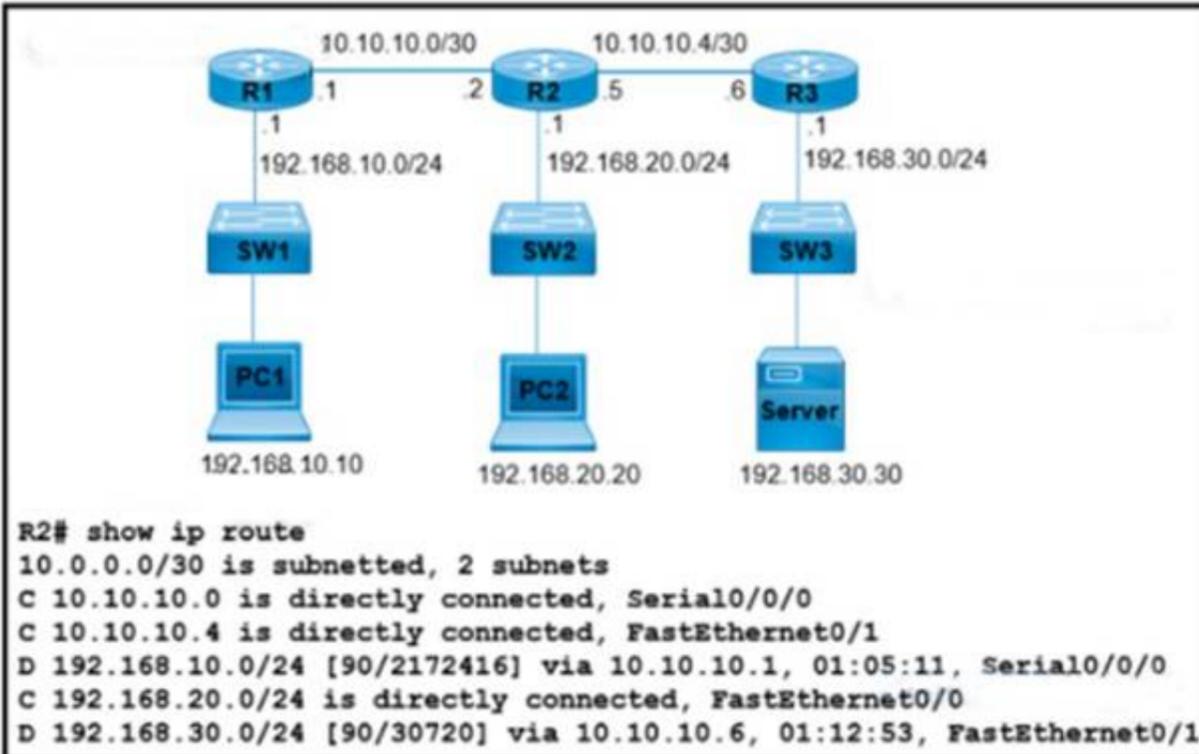
A router has two static routes to the same destination network under the same OSPF process. How does the router forward packets to the destination if the next-hop devices are different?

- A. The router chooses the route with the oldest age.
- B. The router load-balances traffic over all routes to the destination.
- C. The router chooses the next hop with the lowest MAC address.
- D. The router chooses the next hop with the lowest IP address.

Answer: B

NEW QUESTION 366

- (Topic 4)



Refer to the exhibit. What is the next-hop P address for R2 so that PC2 reaches the application server via EIGRP?

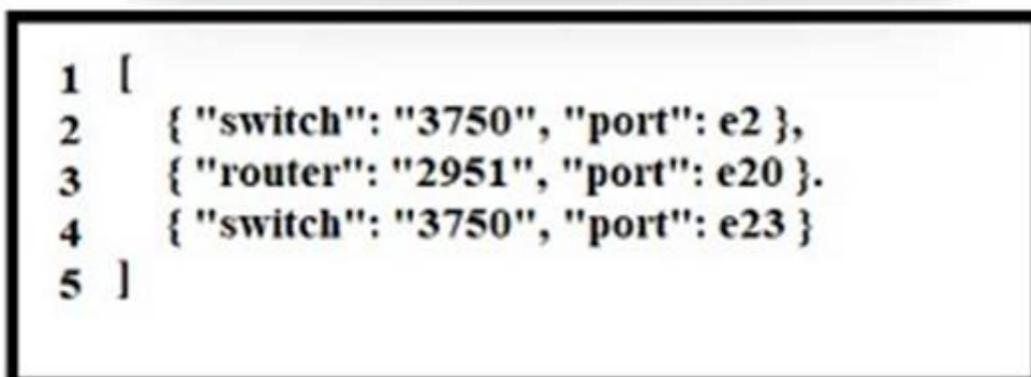
- A. 192.168.30.1
- B. 10.10.105
- C. 10.10.10.6
- D. 192.168.201

Answer: D

NEW QUESTION 370

- (Topic 4)

Refer to the exhibit.



What is represented by the word "switch" in line 2 of the JSON schema?

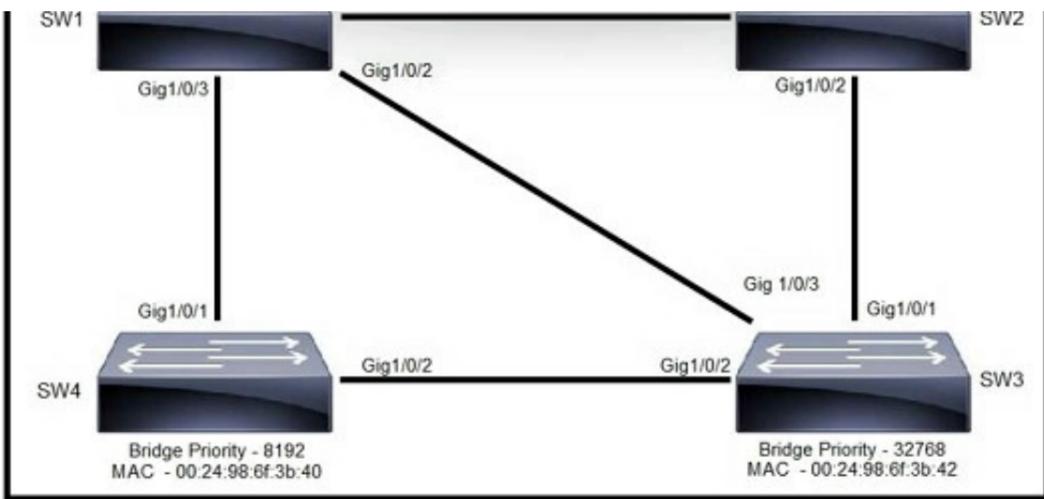
- A. array
- B. key
- C. value
- D. object

Answer: C

NEW QUESTION 375

- (Topic 4)

Refer to the exhibit.



Rapid PVST+ mode is on the same VLAN on each switch. Which switch becomes the root bridge and why?

- A. SW2, because its MAC address is the highest
- B. SW3, because its priority is the highest
- C. SW4, because its priority is highest and its MAC address is lower
- D. SW1, because its priority is the lowest and its MAC address is higher

Answer: B

NEW QUESTION 378

- (Topic 4)

Refer to the exhibit.

```
R_1# show ip route
.....
D 192.168.20.0/26 [90/24513456] via 10.10.10.1
R 192.168.20.0/24 [120/5] via 10.10.10.2
O 192.168.0.0/19 [110/219414] via 10.10.10.13
B 192.168.0.0/16 is variably subnetted, 4 subnets, 4 masks
D 192.168.20.0/27 [90/4123710] via 10.10.10.12
D 192.168.20.0/25 [90/14464211] via 10.10.10.11
S. 0.0.0.0/0 [1/0] via 10.10.10.14
```

Packets are flowing from 192.168.10.1 to the destination at IP address 192.168.20.75. Which next hop will the router select for the packet?

- A. 10.10101
- B. 10.10.10.11
- C. 10.10.10.12
- D. 10.101014

Answer: B

Explanation:

The router will select the next hop based on the longest prefix match in the routing table. The destination IP address 192.168.20.75 belongs to the network 192.168.0.0/19, which is a classless network created by subnetting the classful network 192.168.0.0/16. The routing table has two entries for the network 192.168.0.0/19, one with a metric of 219414 and another with a metric of 5. The router will choose the entry with the lower metric, which is 5, and forward the packet to the next hop 10.10.10.11.

NEW QUESTION 383

- (Topic 4)

Why would VRRP be implemented when configuring a new subnet in a multivendor environment?

- A. when a gateway protocol is required that support more than two Cisco devices for redundancy
- B. to enable normal operations to continue after a member failure without requiring a change in a host ARP cache
- C. to ensure that the spanning-tree forwarding path to the gateway is loop-free
- D. to interoperate normally with all vendors and provide additional security features for Cisco devices

Answer: A

NEW QUESTION 388

- (Topic 4)

An engineer is configuring a switch port that is connected to a VoIP handset. Which command must the engineer configure to enable port security with a manually assigned MAC address of abcd-bod on voice VLAN 4?

- A. switchport port-security mac-address abcd.abcd.abcd
- B. switchport port-security mac-address abed.abed.abed vlan 4
- C. switchport port-security mac-address sticky abcd.abcd.abcd vlan 4
- D. switchport port-security mac-address abcd.abcd.abcd vlan voice

Answer: A

NEW QUESTION 391

- (Topic 4)

What is the role of the root port in a switched network?

- A. It replaces the designated port when the designated port fails
- B. It is the best path to the root from a nonroot switch.
- C. It replaces the designated port when the root port fails.
- D. It is administratively disabled until a failover occurs.

Answer: B

Explanation:

The root port is the port on a nonroot switch that has the lowest cost to reach the root bridge in a switched network. The root bridge is the switch that is elected as the central point of the network by the spanning tree protocol (STP). The root port is responsible for forwarding traffic to the root bridge, and it is always in a forwarding state. The cost of a port is determined by the speed and bandwidth of the link, and the lower the cost, the better the path. If there are multiple paths to the root bridge with the same cost, the switch will choose the one with the lowest bridge ID as the tiebreaker. The root port does not replace or replace any designated port, which is the port that forwards traffic on a network segment. The root port is also not administratively disabled or enabled, but it is dynamically selected by STP1234.

References:

- ? 1: Solved: STP: Root port vs. designated port - Cisco Community
- ? 2: Difference between Root Port and Designated Port - GeeksforGeeks
- ? 3: What is a Root Port - Snabay Networking
- ? 4: What is a Root Port - omniseccu.com

NEW QUESTION 393

- (Topic 4)

Refer to the exhibit.

```
Media State . . . . . : Media disconnected
Connection-specific DNS Suffix :
Description . . . . . : Realtek PCIe GBE Family
Controller
Physical Address. . . . . : 3C-52-82-33-F3-8F
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . : Yes

Wireless LAN adapter Wi-Fi:
Connection-specific DNS Suffix : arcep.se
Description . . . . . : Intel(R) Dual Band
Wireless-AC 7265
Physical Address. . . . . : C8-21-58-B4-F3-EF
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . : Yes
Link-local IPv6 Address . . . . : fe80::45a1:b3fa:2f37:bf37%2 (Preferred)
IPv4 Address. . . . . : 192.168.1.226 (Preferred)
Subnet Mask . . . . . : 255.255.255.0
Lease Obtained. . . . . : October 3, 2019 12:28:08 PM
Lease Expires . . . . . : October 3, 2019 7:18:37 PM
Default Gateway . . . . . : 192.168.1.100
DHCP Server . . . . . : 192.168.1.254
DHCPv6 IAID . . . . . : 46670168
DHCPv6 Client DUID. . . . . : 00-01-00-01-20-FF-05-55-3C-52-82-33-D3-84
DNS Servers . . . . . : 192.168.1.253
NetBIOS over Tcpip. . . . . : Enabled
Connection-specific DNS Suffix Search List :
arcep.se
```

The given Windows PC is requesting the IP address of the host at www.cisco.com. To which IP address is the request sent?

- A. 192.168.1.226
- B. 192.168.1.100
- C. 192.168.1.254
- D. 192.168.1.253

Answer: D

NEW QUESTION 396

- (Topic 4)

Refer to the exhibit. A multivendor network exists and the company is implementing VoIP over the network for the first time.

A)

```
SW1(config)#no cdp enable
SW1(config)#interface gigabitethernet1/0/1
SW1(config-if)#cdp run
```

B)

```
SW1(config)#lldp enable
SW1(config)#interface gigabitethernet1/0/1
SW1(config-if)#lldp run
```

C)

```
SW1(config)#lldp run
SW1(config)#interface gigabitethernet1/0/1
SW1(config-if)#lldp enable
```

D)

```
SW1(config)#no cdp run
SW1(config)#interface gigabitethernet1/0/1
SW1(config-if)#lldp transmit
SW1(config-if)#lldp receive
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

NEW QUESTION 397

- (Topic 4)

Refer to the exhibit.

```
interface g2/0/0
  channel-group 1 mode active
interface g4/0/0
  channel-group 1 mode active
interface Port-channell
  ip address 203.0.113.65 255.255.255.252

%LINEPROTO-5-UPDOWN: Line protocol on Interface Port-channell, changed state to down
```

An engineer is configuring a Layer 3 port-channel interface with LACP. The configuration on the first device is complete, and it is verified that both interfaces have registered the neighbor device in the CDP table. Which task on the neighbor device enables the new port channel to come up without negotiating the channel?

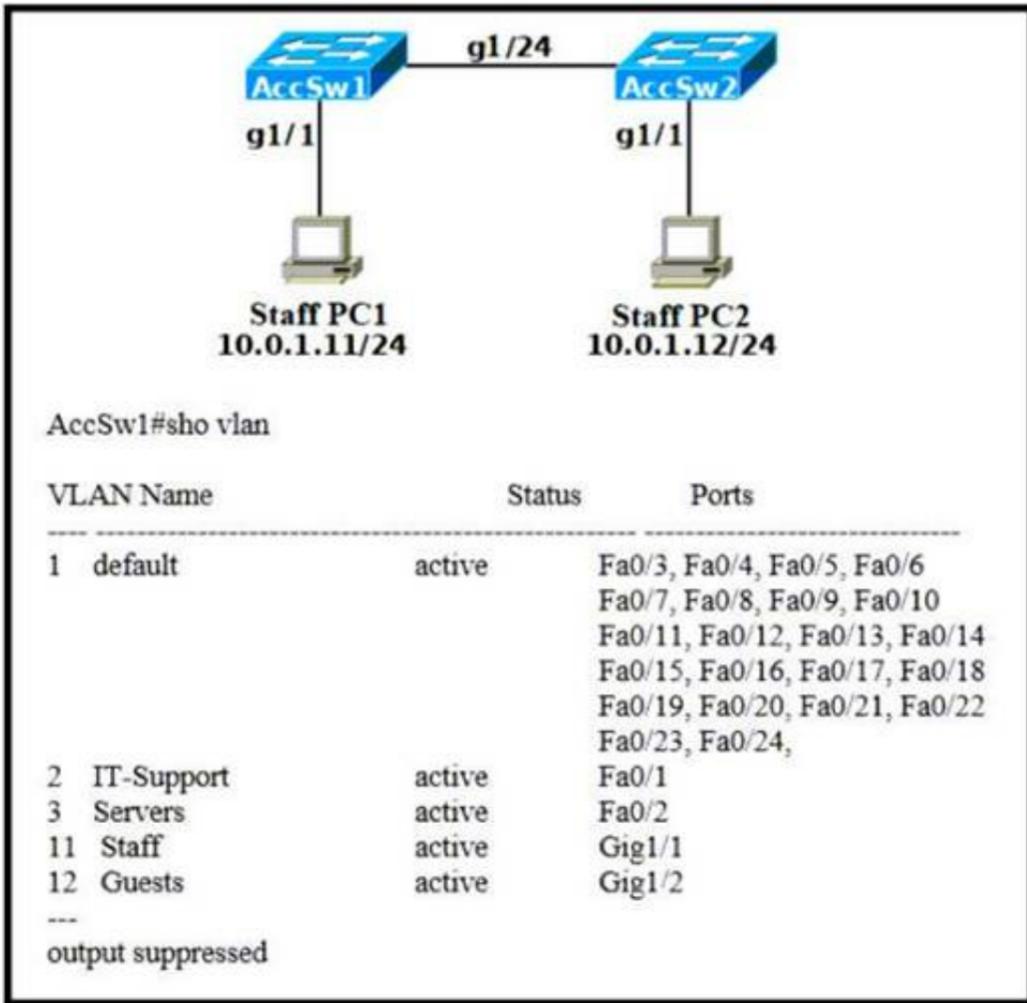
- A. Change the EtherChannel mode on the neighboring interfaces to auto.
- B. Configure the IP address of the neighboring device.
- C. Bring up the neighboring interfaces using the no shutdown command.
- D. Modify the static EtherChannel configuration of the device to passive mode.

Answer: D

NEW QUESTION 401

- (Topic 4)

Refer to the exhibit.



Switch AccSw2 has just been added to the network along with PC2. All VLANs have been implemented on AccSw2. How must the ports on AccSw2 be configured to establish Layer 2 connectivity between PC1 and PC2?

- A.
 - interface GigabitEthernet1/1
 - switchport mode access
 - switchport access vlan 11
 - !
 - interface GigabitEthernet1/24
 - switchport mode trunk
- B.
 - interface GigabitEthernet1/2
 - switchport mode access
 - switchport access vlan 12
 - !
 - interface GigabitEthernet1/24
 - switchport mode trunk
 - switchport trunk allowed vlan 11,12
- C.
 - interface GigabitEthernet1/24
 - switchport mode trunk
 - switchport trunk allowed vlan 11,12
 - !
 - interface GigabitEthernet1/1
 - switchport access vlan 11
- D.
 - interface GigabitEthernet1/2
 - switchport mode access
 - switchport access vlan 2
 - !
 - interface GigabitEthernet1/24
 - switchport mode trunk

A.
 Answer: A

NEW QUESTION 402

- (Topic 4)

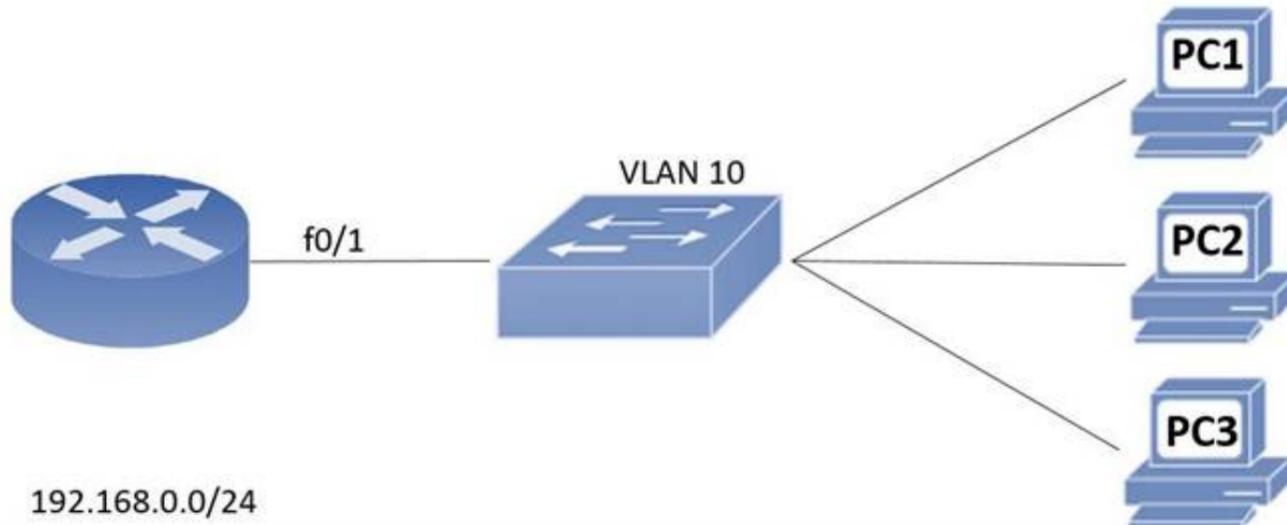
Why is TCP desired over UDP for application that require extensive error checking, such as HTTPS?

- A. UDP operates without acknowledgments, and TCP sends an acknowledgment for every packet received.
- B. UDP reliably guarantees delivery of all packets, and TCP drops packets under heavy load.
- C. UDP uses flow control mechanisms for the delivery of packets, and TCP uses congestion control for efficient packet delivery.
- D. UDP uses sequencing data for packets to arrive in order, and TCP offers trie capability to receive packets in random order.

Answer: A

NEW QUESTION 403

- (Topic 4)
 Refer to the exhibit.



An engineer assigns IP addressing to the current VLAN with three PCs. The configuration must also account for the expansion of 30 additional VLANs using the same Class C subnet for subnetting and host count. Which command set fulfills the request while reserving address space for the expected growth?

- A. Switch(config)#interface vlan 10Switch(config-if)#ip address 192.168.0.1 255 255.255.252
- B. Switch(config)#interface vlan 10Switch(config-if)#ip address 192.168.0.1 255 255.255.248
- C. Switch(config)#interface vlan 10Switch(config-if)#ip address 192.168.0.1 255 255.255.0
- D. Switch(config)#interface vlan 10Switch(config-if)#ip address 192.168.0.1 255.255.255.128

Answer: B

NEW QUESTION 408

DRAG DROP - (Topic 4)
 Drag and drop the characteristic from the left onto the IPv6 address type on the right.

provides for one-to-one communication	Global Unicast Address
is a counterpart of private IPv4 addresses	
is publicly routable in the same way as IPv4 addresses	Unique Local
allows sites to be combined without address conflicts	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

provides for one-to-one communication	Global Unicast Address
is a counterpart of private IPv4 addresses	
is publicly routable in the same way as IPv4 addresses	Unique Local
allows sites to be combined without address conflicts	

NEW QUESTION 409

- (Topic 4)
 What is a zero-day exploit?

- A. It is when a new network vulnerability is discovered before a fix is available
- B. It is when the perpetrator inserts itself in a conversation between two parties and captures or alters data.
- C. It is when the network is saturated with malicious traffic that overloads resources and bandwidth
- D. It is when an attacker inserts malicious code into a SOL server.

Answer: A

Explanation:

<https://www.kaspersky.com/resource-center/definitions/zero-day-exploit>

NEW QUESTION 410

- (Topic 4)
 What is the purpose of classifying network traffic in QoS?

- A. services traffic according to its class
- B. identifies the type of traffic that will receive a particular treatment
- C. writes the class identifier of a packet to a dedicated field in the packet header
- D. configures traffic-matching rules on network devices

Answer: B

NEW QUESTION 415

- (Topic 4)
 How does authentication differ from authorization?

- A. Authentication verifies the identity of a person accessing a network, and authorization determines what resource a user can access.
- B. Authentication is used to record what resource a user accesses, and authorization is used to determine what resources a user can access
- C. Authentication is used to determine what resources a user is allowed to access, and authorization is used to track what equipment is allowed access to the network
- D. Authentication is used to verify a person's identity, and authorization is used to create syslog messages for logins.

Answer: A

NEW QUESTION 419

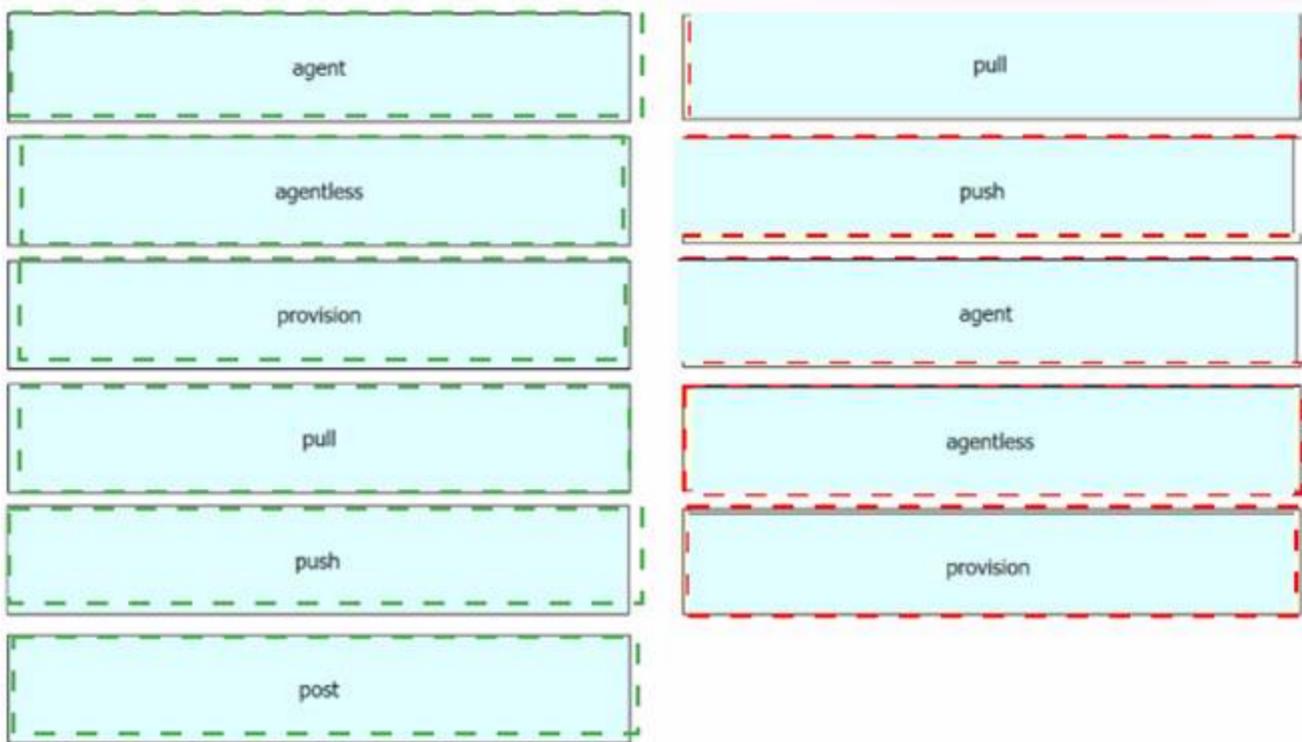
DRAG DROP - (Topic 4)
 Drag and drop the configuration management terms from the left onto the descriptions on the right. Not all terms are used.

agent	daemon that determines when the central authority has updates available
agentless	model in which the central server sends updates to nodes on an as-needed basis
provision	easy-to-manage deployment option that may lack scalability
pull	device hardware that runs without embedded management features
push	to automatically install or deploy a configuration or update
post	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 420

- (Topic 4)

Which functionality is provided by the console connection on a Cisco WLC?

- A. out-of-band management
- B. secure in-band connectivity for device administration
- C. unencrypted in-band connectivity for file transfers
- D. HTTP-based GUI connectivity

Answer: B

NEW QUESTION 424

- (Topic 4)

What is the role of SNMP in the network?

- A. to monitor network devices and functions using a TCP underlay that operates on the presentation layer
- B. to collect data directly from network devices using an SSL underlay that operates on the transport layer
- C. to monitor and manage network devices using a UDP underlay that operates on the application layer
- D. to collect telemetry and critical information from network devices using an SSH underlay that operates on the network layer

Answer: C

NEW QUESTION 429

- (Topic 4)

What does a switch search for in the CAM table when forwarding a frame?

- A. source MAC address and aging time
- B. destination MAC address and flush time
- C. source MAC address and source port
- D. destination MAC address and destination port

Answer: D

Explanation:

A switch searches for the destination MAC address and the destination port in the CAM table when forwarding a frame. The CAM table, or content addressable memory table, is a data structure that stores the MAC addresses of the devices connected to the switch ports and their associated VLANs. The switch uses the CAM table to make layer 2 forwarding decisions based on the destination MAC address of a frame. When a frame arrives at a switch port, the switch first learns the source MAC address and the source port of the frame and updates the CAM table accordingly. Then, the switch looks up the destination MAC address of the frame in the CAM table and finds the corresponding destination port. If there is a match, the switch forwards the frame out of that port only. If there is no match, the switch floods the frame out of all ports except the source port.

References:

- ? 1: Why is the CAM table in a switch called CAM table and not MAC table even though it holds MAC addresses?
- ? 2: ARP and CAM Table
- ? 3: The CAM Table or MAC address Table

NEW QUESTION 433

- (Topic 4)

What are two protocols within the IPsec suite? (Choose two)

- A. AH
- B. 3DES
- C. ESP
- D. TLS

E. AES

Answer: DE

NEW QUESTION 436

DRAG DROP - (Topic 4)

Drag and drop the Rapid PVST+ forwarding state actions from the left to the right. Not all actions are used.

BPDUs received are forwarded to the system module.	action
BPDUs received from the system module are processed and transmitted.	action
Frames received from the attached segment are discarded.	action
Frames received from the attached segment are processed.	action
Switched frames received from other ports are advanced.	
The port in the forwarding state responds to network management messages.	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

- * 1. BPDUs received are forwarded to the system module.
- * 2. Frames received from the attached segment are processed.
- * 3. Switched frames received from other ports are advanced.
- * 4. The port in the forwarding state responds to network management messages.

https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus5000/sw/layer2/503_n1_1/Cisco_n5k_layer2_config_gd_rel_503_N1_1_chapter9.html

NEW QUESTION 437

- (Topic 4)

Refer to the exhibit.



Host A switch interface is configured in VLAN 2. Host D sends a unicast packet destined for the IP address of host A.

Sw1#show mac-address table
 Mac Address Table

Vlan	Mac Address	Type	Ports
2	000c.859c.bb7b	DYNAMIC	e0/1
3	000c.859c.bb7b	DYNAMIC	e0/1
2	0010.11dc.3e91	DYNAMIC	e0/2
3	0010.11dc.3e91	DYNAMIC	e0/2
2	0043.49d4.c383	DYNAMIC	e0/3

Sw1#

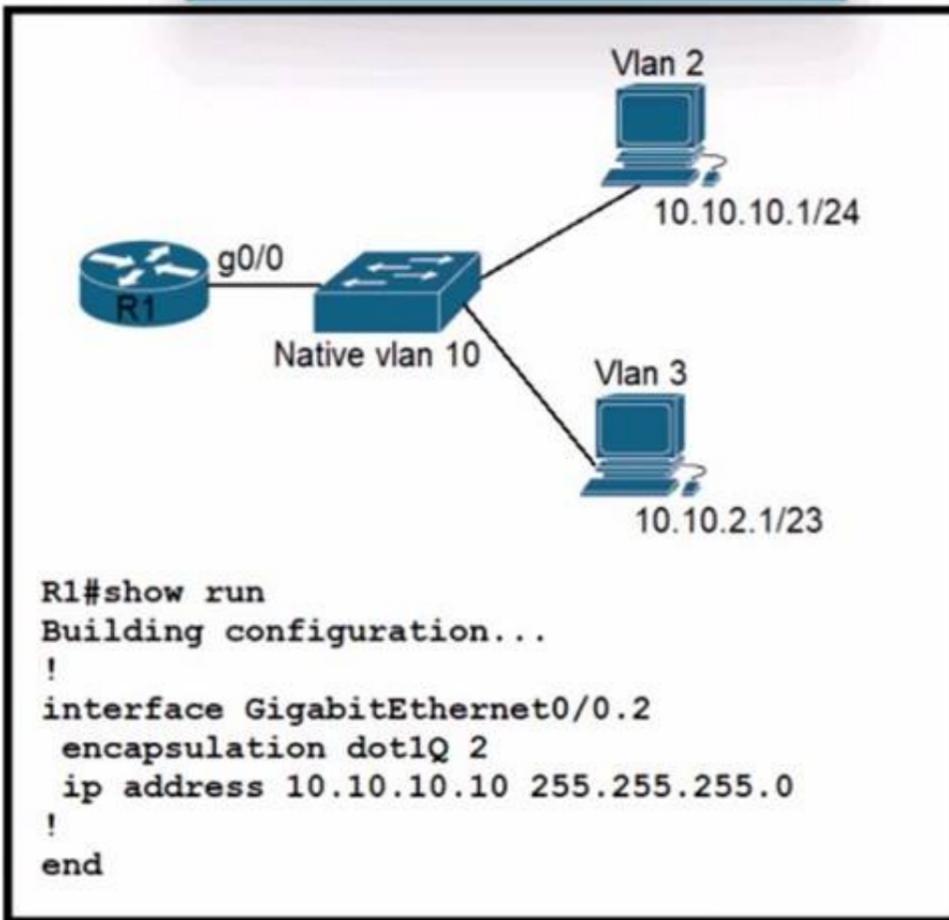
What does the switch do when it receives the frame from host D?

- A. It creates a broadcast storm.
- B. It drops the frame from the MAC table of the switch.
- C. It shuts down the source port and places it in err-disable mode.
- D. It floods the frame out of every port except the source port.

Answer: C

NEW QUESTION 440

- (Topic 4)



A)

```

interface GigabitEthernet0/0
 ip address 10.10.2.10 255.255.252.0
    
```

B)

```

interface GigabitEthernet0/0.3
 encapsulation dot1Q 10
 ip address 10.10.2.10 255.255.255.252
    
```

C)

```

interface GigabitEthernet0/0.10
 encapsulation dot1Q 3
 ip address 10.10.2.10 255.255.254.0
    
```

D)

```

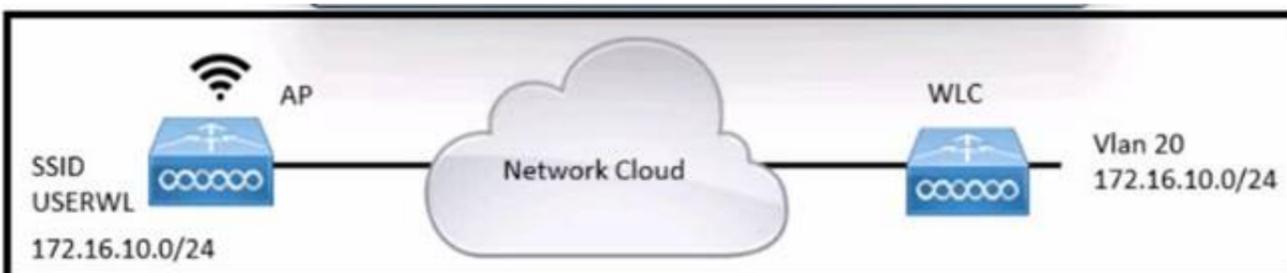
interface GigabitEthernet0/0.3
 encapsulation dot1Q 3 native
 ip address 10.10.2.10 255.255.252.0
    
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: C

NEW QUESTION 443

- (Topic 4)
 Refer to the exhibit.



A network engineer is configuring a WLAN to connect with the 172.16.10.0/24 network on VLAN 20. The engineer wants to limit the number of devices that connect to the WLAN on the USERWL SSID to 125. Which configuration must the engineer perform on the WLC?

- A. In the Management Software activation configuration, set the Clients value to 125.
- B. In the Controller IPv6 configuration, set the Throttle value to 125.
- C. In the WLAN configuration, set the Maximum Allowed Clients value to 125.
- D. In the Advanced configuration, set the DTIM value to 125.

Answer: C

NEW QUESTION 446

- (Topic 4)

Which command configures the Cisco WLC to prevent a serial session with the WLC CLI from being automatical toggged out?

- A. config sessions maxsessions 0
- B. config sessions timeout 0
- C. config serial timeout 0
- D. config serial timeout 9600

Answer: B

NEW QUESTION 447

- (Topic 4)

Which two IPv6 addresses are used to provide connectivity between two routers on a shared link? (Choose two)

- A. ::ffif 1014 1011/96
- B. 2001 7011046:1111:1/64
- C. :jff06bb43cd4dd111bbff02 4545234d
- D. 2002 5121204b 1111:1/64
- E. FF02::0WIFF00:0l)00/104

Answer: B

NEW QUESTION 451

FILL IN THE BLANK - (Topic 4)

Refer to the exhibit.

```
R2#show ip ospf interface
GigabitEthernet0/0/0 is up, line protocol is up
Internet address is 192.168.1.1/24, Area 0
Process ID 1, Router ID 192.168.1.1, Network Type BROADCAST, Cost: 1
Transmit Delay is 1 sec, State DROTHER, Priority 1
Designated Router (ID) 192.168.1.1, Interface address 192.168.1.2
Backup Designated Router (ID) 192.168.1.1, Interface address 192.168.1.2
Timer intervals configured, Hello 10, Dead 40, Wait 40, Retransmit 5
Hello due in 00:00:02
Index 2/2, flood queue length 0
Neighbor Count is 1, Adjacent neighbor count is 2
```

Router OldR is replacing another router on the network with the intention of having OldR and R2 exchange routes_ After the engineer applied the initial OSPF configuration: the routes were still missing on both devices. Which command sequence must be issued before the clear IP ospf process command is entered to enable the neighbor relationship?

- OldR(config)#interface g0/0/0
OldR(config-if)#ip ospf dead-interval 15
- OldR(config)#router ospf 1
OldR(config-router)#no router-id 192.168.1.1
- OldR(config)#router ospf 1
OldR(config-router)#network 192.168.1.0 255.255.255.0 area 2
- OldR(config)#interface g0/0/0
OldR(config-if)#ip ospf hello-interval 15

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: C

NEW QUESTION 454

- (Topic 4)

What are two purposes of HSRP? (Choose two.)

- A. It groups two or more routers to operate as one virtual router.
- B. It improves network availability by providing redundant gateways.
- C. It passes configuration information to hosts in a TCP/IP network.
- D. It helps hosts on the network to reach remote subnets without a default gateway.

E. It provides a mechanism for diskless clients to autoconfigure their IP parameters during boot.

Answer: AB

NEW QUESTION 456

- (Topic 4)
 Refer to the exhibit.



Wireless LAN access must be set up to force all clients from the NA WLAN to authenticate against the local database. The WLAN is configured for local EAP authentication. The time that users access the network must not be limited. Which action completes this configuration?

- A. Uncheck the Guest User check box
- B. Check the Guest User Role check box
- C. Set the Lifetime (seconds) value to 0
- D. Clear the Lifetime (seconds) value

Answer: C

NEW QUESTION 460

- (Topic 4)
 Refer to the exhibit.

```

R1# show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, * - candidate default
       U - per-user static route, o - ODR
Gateway of last resort is not set
C    172.16.0.0/16 is directly connected, Loopback0
     172.16.0/16 is variably subnetted, 4 subnets, 2 masks
O    172.16.1.3/24 [110/100] via 192.168.7.40, 00:39:08, Serial0
C    172.16.1.0/24 is directly connected, Serial0
O    172.16.1.184/29 [110/5] via 192.168.7.35, 00:39:08, Serial0
O    172.16.3.0/24 [110/10] via 192.168.7.4, 00:39:08, Gigabit Ethernet 0/0
D    172.16.1.0/28 [90/10] via 192.168.7.7, 00:39:08, Gigabit Ethernet 0/0
    
```

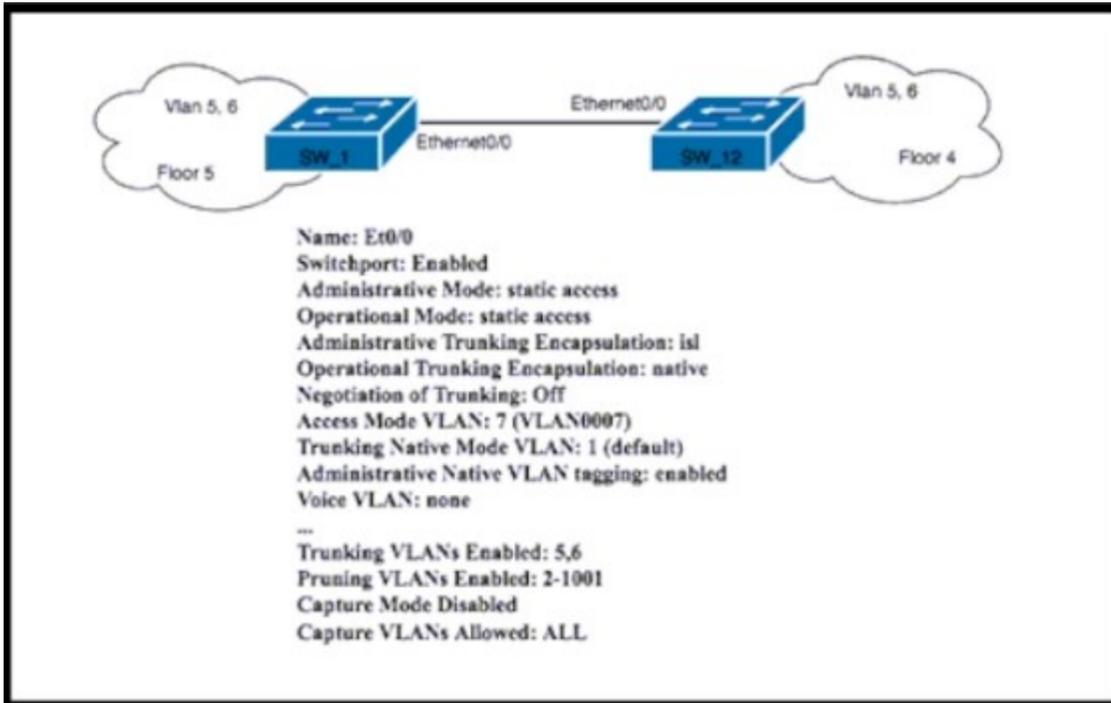
Load-balanced traffic is coming in from the WAN destined to a host at 172.16.1.190. Which next-hop is used by the router to forward the request?

- A. 192.168.7.4
- B. 192.168.7.7
- C. 192.168.7.35
- D. 192.168.7.40

Answer: D

NEW QUESTION 464

- (Topic 4)
 Refer to the exhibit.



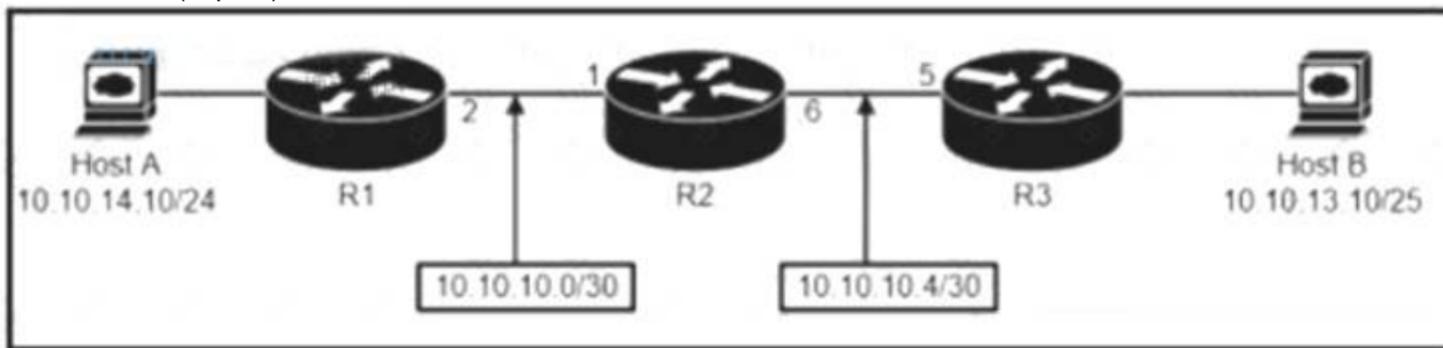
SW_1 and SW_12 represent two companies that are merging. They use separate network vendors. The VLANs on both Sides have been migrated to share IP subnets. Which command sequence must be issued on both sides to join the two companies and pass all VLANs between the companies?

- A. switchport mode trunkswitchport trunk encapsulation dot1q
- B. switchport mode trunk switchport trunk allowed vlan all switchport dot1q ethertype 0800
- C. switchport mode dynamic desirable switchport trunk allowed vlan all switchport trunk native vlan 7
- D. switchport dynamic auto switchport nonegotiate

Answer: A

NEW QUESTION 465

DRAG DROP - (Topic 4)



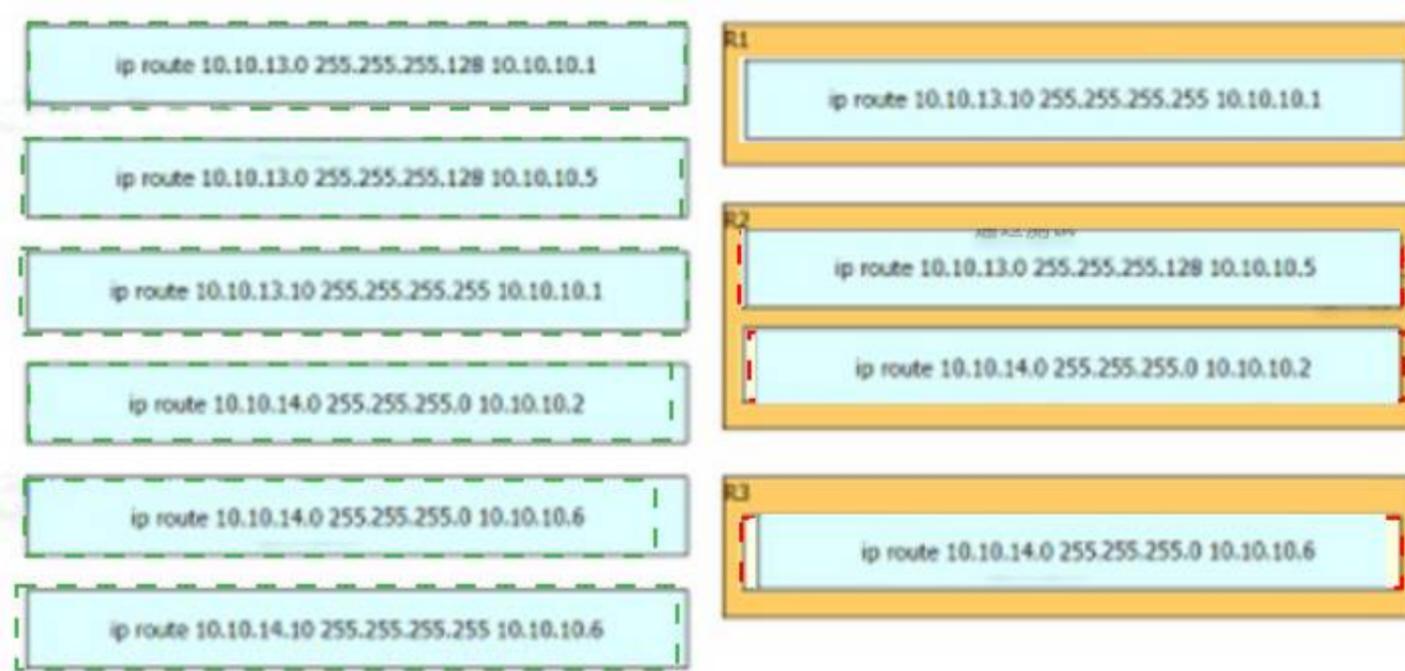
Refer to the exhibit. An engineer must configure a static network route between two networks so that host A communicates with host B. Drag and drop the commands from the left onto the routers where they must be configured on the right. Not all commands are used.

ip route 10.10.13.0 255.255.255.128 10.10.10.1	R1
ip route 10.10.13.0 255.255.255.128 10.10.10.5	
ip route 10.10.13.10 255.255.255.255 10.10.10.1	R2
ip route 10.10.14.0 255.255.255.0 10.10.10.2	
ip route 10.10.14.0 255.255.255.0 10.10.10.6	R3
ip route 10.10.14.10 255.255.255.255 10.10.10.6	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 470

- (Topic 4)

What is a specification for SSIDS?

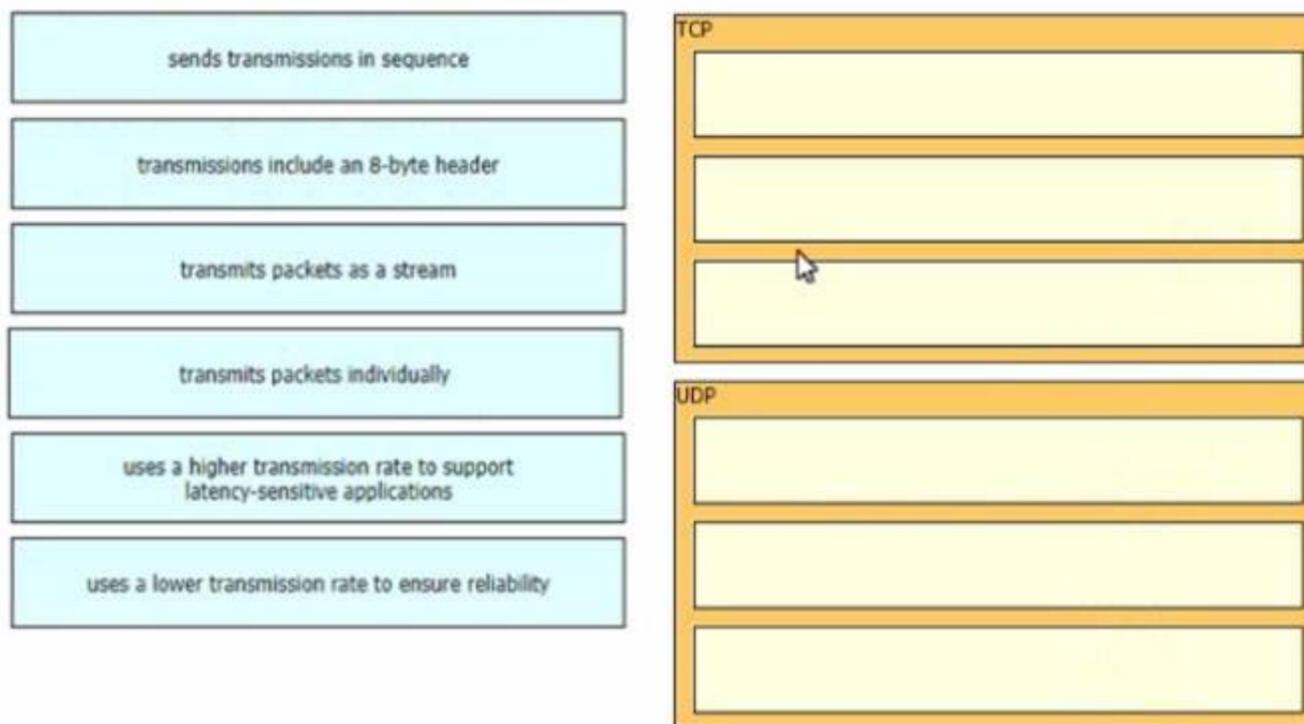
- A. They are a Cisco proprietary security feature.
- B. They must include one number and one letter.
- C. They define the VLAN on a switch.
- D. They are case sensitive.

Answer: B

NEW QUESTION 473

DRAG DROP - (Topic 4)

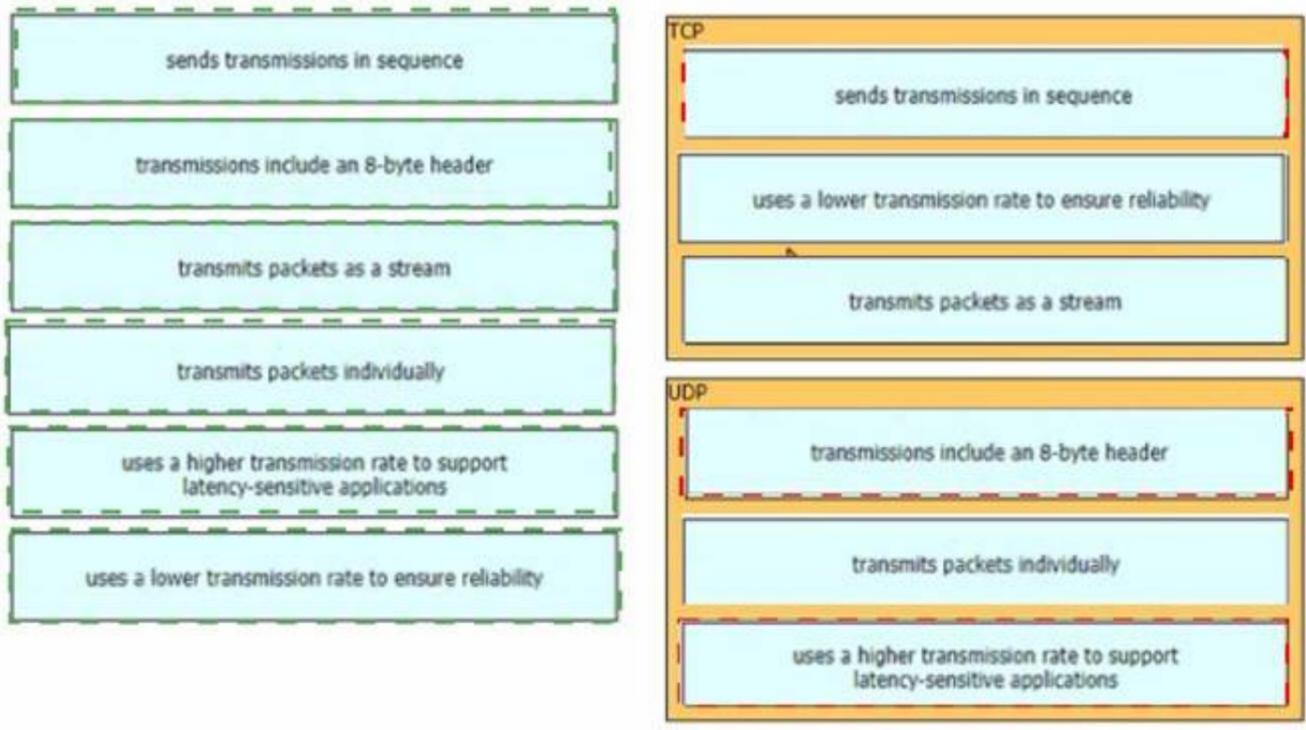
Drag and drop the descriptions of IP protocol transmissions from the left onto the IP traffic types on the right.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 476

- (Topic 4)

A network engineer is upgrading a small data center to host several new applications, including server backups that are expected to account for up to 90% of the bandwidth during peak times. The data center connects to the MPLS network provider via a primary circuit and a secondary circuit. How does the engineer inexpensively update the data center to avoid saturation of the primary circuit by traffic associated with the backups?

- A. Assign traffic from the backup servers to a dedicated switch.
- B. Configure a dedicated circuit for the backup traffic.
- C. Place the backup servers in a dedicated VLAN.
- D. Advertise a more specific route for the backup traffic via the secondary circuit.

Answer: A

NEW QUESTION 479

- (Topic 4)

Refer to the exhibit.

Entry #	
1	192.168.10.0 255.255.254.0
2	192.168.10.0 255.255.255.192
3	192.168.10.0 255.255.0.0
4	192.168.10.0 255.255.224.0

Which entry is the longest prefix match for host IP address 192.168.10.5?

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

Answer: B

NEW QUESTION 481

- (Topic 4)

What describes a northbound REST API for SON?

- A. application-facing interface for SNMP GET requests
- B. network-element-facing interface for GET POST PUT and DELETE methods
- C. network-element-facing interface for the control and data planes
- D. application-facing interface far GET, POST, PUT, and DELETE methods

Answer: D

NEW QUESTION 482

- (Topic 4)

Refer to the exhibit.

```

R1# show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
I - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
* - candidate default, U - per-user static route, o - ODR
P - periodic downloaded static route

Gateway of last resort is not set
10.0.0.0/24 is subnetted, 5 subnets
D 10.1.2.0/24 [90/2170112] via 10.165.20.226, 00:01:30, Serial0/0
D 10.1.3.0/24 [90/2170112] via 10.165.20.226, 00:01:30, Serial0/0
D 10.1.2.0/25 [90/2170112] via 10.165.20.126, 00:01:30, Serial0/0
D 10.1.3.0/25 [90/2170112] via 10.165.20.146, 00:01:30, Serial0/0
D 10.1.4.0/25 [90/2170112] via 10.165.20.156, 00:01:30, Serial0/0
192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.18.10.0/24 is directly connected, GigabitEthernet0/0
192.168.21.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.11.0/24 is directly connected, GigabitEthernet0/1
10.165.20.0/24 is variably subnetted, 2 subnets, 2 masks
C 10.165.20.224/24 is directly connected, Serial0/0
S 10.1.2.112/28 [1/0] via 10.165.20.166
    
```

What is the next hop for traffic entering R1 with a destination of 10.1.2 126?

- A. 10.165 20.126
- B. 10.165.20.146
- C. 10.165.20.166
- D. 10.165 20.226

Answer: D

NEW QUESTION 487

- (Topic 4)

An administrator must use the password complexity not manufacturer-name command to prevent users from adding "cisco" as a password. Which command must be issued before this command?

- A. Password complexity enable
- B. confreg 0x2142
- C. Login authentication my-auth-list
- D. service password-encryption

Answer: A

NEW QUESTION 491

- (Topic 4)

Refer to the exhibit.

```

Cat9K-1# show lldp entry Cat9K-2
Local Intf: Gi1/0/21
Chassis id: 308b.b2b3.2880
Port id: Gi1/0/21
Port Description: GigabitEthernet1/0/21
System Name: Cat9K-2

Management Addresses:
IP: 10.5.110.2
    
```

The network administrator must prevent the switch Cat9K-2 IP address from being visible in LLDP without disabling the protocol. Which action must be taken must be taken to complete the task?

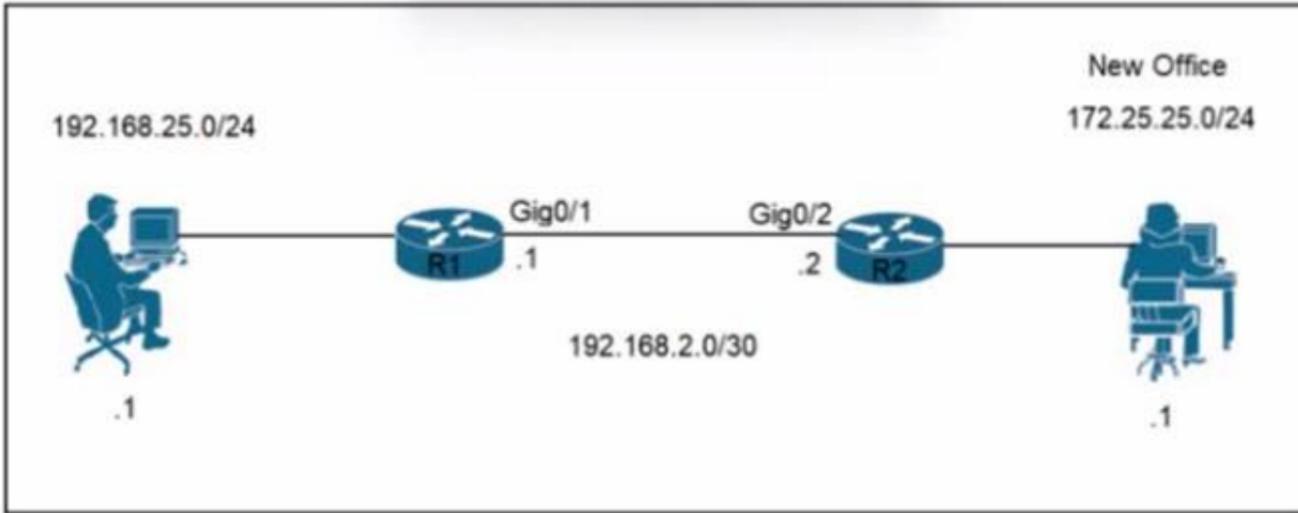
- A. Configure the no lldp tlv-select-management-address command globally on Cat9K-2
- B. Configure the no lldp transmit command on interface G1/0/21 in Cat9K-1
- C. Configure the no lldp receive command on interface G1/0/21 on Cat9K-1
- D. Configure the no lldp mac-phy-cfg command globally on Cat9K-2

Answer: A

NEW QUESTION 494

- (Topic 4)

Refer to the exhibit.



A network engineer is updating the configuration on router R1 to connect a new branch office to the company network R2 has been configured correctly. Which command must the engineer configure so that devices at the new site communicate with the main office?

- A. ip route 172.25.25 0 255 255 255.0 192.168.2.1
- B. ip route 172.25.25 1 255 255 255 255 g0/1
- C. ip route 172.25.25.0.255.255.255.0.192.168.2.2

Answer: C

NEW QUESTION 496

- (Topic 4)
 Refer to the exhibit.

```
Device# configure terminal
Device(config)# netconf ssh acl 1
Device(config)# netconf lock-time 100
Device(config)# netconf max-sessions 1
Device(config)# netconf ma-message 10
```

A network engineer must configure NETCONF. After creating the configuration, the engineer gets output from the command show line but not from show running-config. Which command completes the configuration?

- A. Device(config)# netconf lock-time 500
- B. Device(config)# netconf max-message 1000
- C. Device(config)# no netconf ssh acl 1
- D. Device(config)# netconf max-sessions 100

Answer: B

NEW QUESTION 501

- (Topic 4)
 The address block 192 168 32 0/24 must be subnetted into smaller networks The engineer must meet these requirements

- Create 8 new subnets
- Each subnet must accommodate 30 hosts
- Interface VLAN 10 must use the last usable IP in the first new subnet
- A Layer 3 interface is used

Which configuration must be applied to the interface?

A)

```
no switchport mode access
ip address 192.168.32.62 255.255.255.240
```

B)

```
switchport
ip address 192.168.32.65 255.255.255.240
```

C)

```
no switchport mode trunk
ip address 192.168.32.97 255.255.255.224
```

D)

```
no switchport
ip address 192.168.32.30 255.255.255.224
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: D

NEW QUESTION 505

DRAG DROP - (Topic 4)

Drag and drop the Ansible features from the left to the right Not all features are used.

executes modules via SSH by default	feature
uses the YAML language	feature
uses agents to manage hosts	feature
pushes configurations to the client	feature
requires clients to pull configurations from the server	
operates without agents	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

executes modules via SSH by default	operates without agents
uses the YAML language	executes modules via SSH by default
uses agents to manage hosts	uses agents to manage hosts
pushes configurations to the client	pushes configurations to the client
requires clients to pull configurations from the server	
operates without agents	

NEW QUESTION 507

- (Topic 4)

Which command do you enter so that a switch configured with Rapid PVST + listens and learns for a specific time period?

- A. switch(config)#spanning-tree vlan 1 max-age 6
- B. switch(config)#spanning-tree vlan 1 hello-time 10
- C. switch(config)#spanning-tree vlan 1 priority 4096
- D. switch(config)#spanning-tree vlan 1 forward-time 20

Answer: D

Explanation:

Forward time : Determines how long each of the listening and learning states last before the port begins forwarding.
 Switch(config)# [no] spanning-tree vlan vlan_ID forward-time forward_timeConfigures the forward time of a VLAN. The forward_time value can be from 4 to 30 seconds. <https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst4500/12-2/15-02SG/configuration/guide/config/spantree.html#56177>

NEW QUESTION 510

- (Topic 4)

Which IP header field is changed by a Cisco device when QoS marking is enabled?

- A. Header Checksum
- B. Type of service
- C. DSCP
- D. ECN

Answer: B

NEW QUESTION 513

- (Topic 4)

What is a characteristics of a collapsed-core network topology?

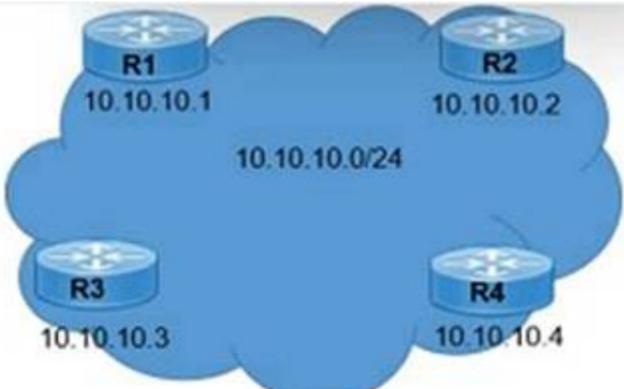
- A. It allows the core and distribution layers to run as a single combined layer.
- B. It enables the core and access layers to connect to one logical distribution device over an EtherChannel.
- C. It enables all workstations in a SOHO environment to connect on a single switch with internet access.
- D. It allows wireless devices to connect directly to the core layer, which enables faster data transmission.

Answer: B

NEW QUESTION 515

- (Topic 4)

Refer to the exhibit.



```

R1# show ip route
C    1.0.0.0/8 is directly connected, Loopback0
C    10.0.0.0/8 is variably subnetted, 4 subnets, 2 masks
O    10.10.10.3/32 [110/100] via 10.10.10.3, 00:39:08, GigabitEthernet0/3
C    10.10.10.0/24 is directly connected, GigabitEthernet0/0
O    10.10.10.2/32 [110/5] via 10.10.10.2, 00:39:08, GigabitEthernet0/2
R    10.10.10.4/32 [120/10] via 10.10.10.4, 00:39:08, GigabitEthernet0/4
    
```

Which next-hop IP address has the least desirable metric when sourced from R1?

- A. 10.10.10.5
- B. 10.10.10.3
- C. 10.10.10.4
- D. 10.10.10.2

Answer: C

NEW QUESTION 519

DRAG DROP - (Topic 4)

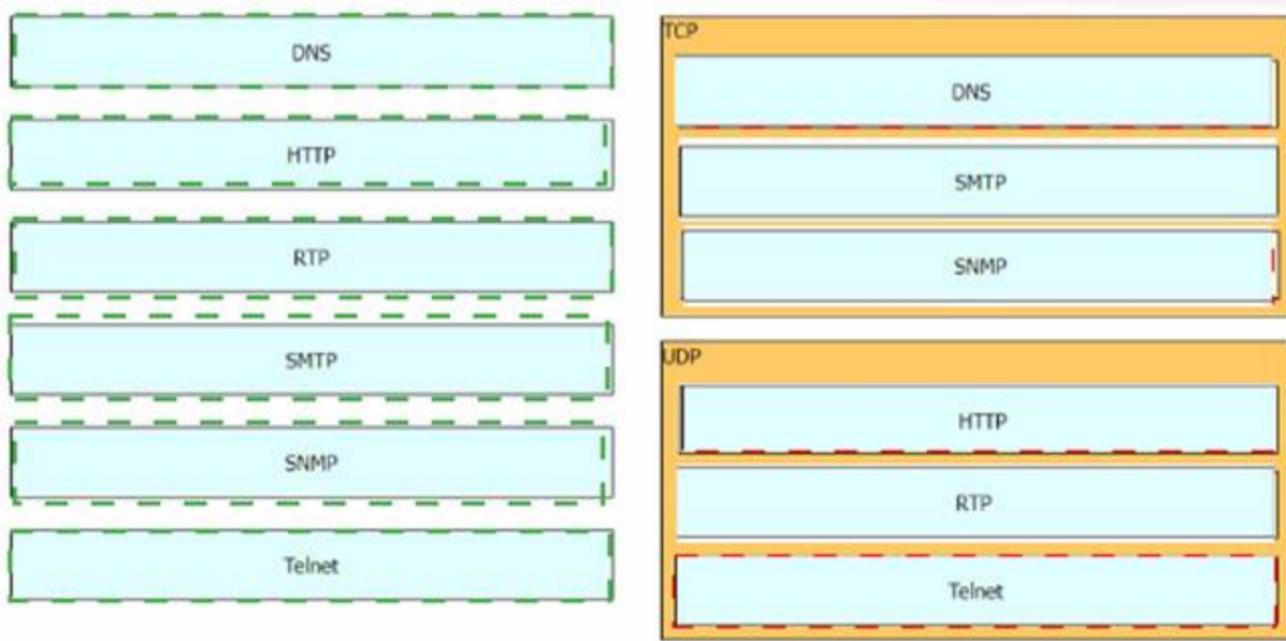
Drag and chop the TCP/IP protocols from the left onto their primary transmission protocols on the right.

DNS	TCP
HTTP	
RTP	
SMTP	UDP
SNMP	
Telnet	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 520

- (Topic 4)

Which type of hypervisor operates without an underlying OS to host virtual machines?

- A. Type 1
- B. Type 2
- C. Type 3
- D. Type 12

Answer: A

NEW QUESTION 521

- (Topic 4)

Which protocol is used in Software Defined Access (SDA) to provide a tunnel between two edge nodes in different fabrics?

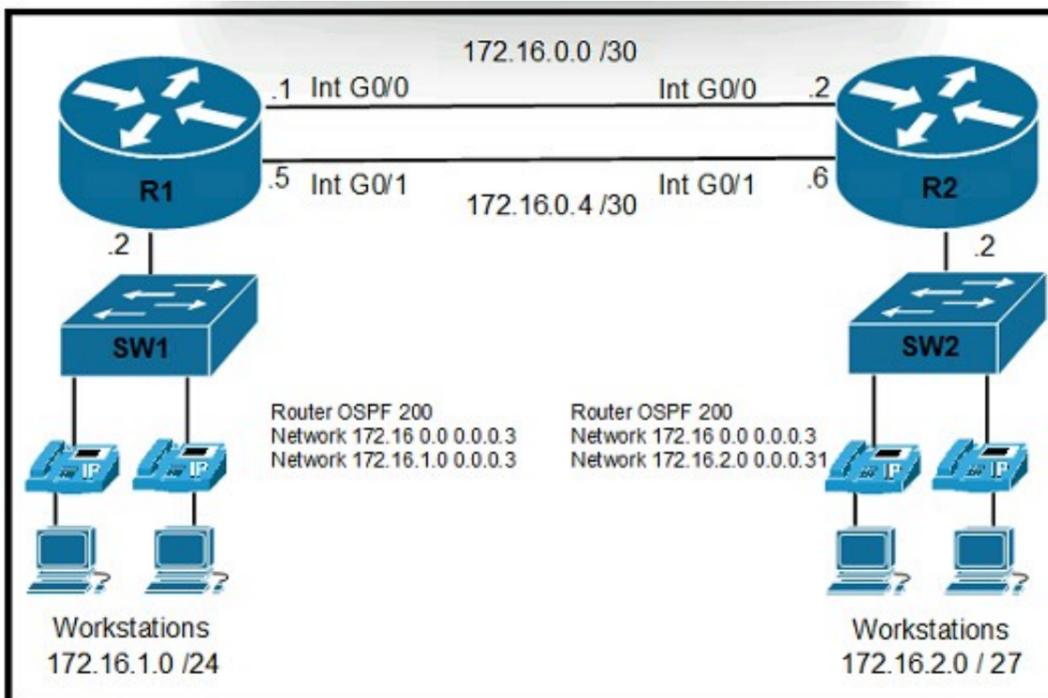
- A. Generic Router Encapsulation (GRE)
- B. Virtual Local Area Network (VLAN)
- C. Virtual Extensible LAN (VXLAN)
- D. Point-to-Point Protocol

Answer: C

NEW QUESTION 525

- (Topic 4)

Refer to the exhibit.



The primary route across Gi0/0 is configured on both routers. A secondary route must be configured to establish connectivity between the workstation networks. Which command set must be configured to complete this task?

A)

R1
ip route 172.16.2.0 255.255.255.240 172.16.0.2 113

R2
ip route 172.16.1.0 255.255.255.0 172.16.0.1 114

B)

R1
ip route 172.16.2.0 255.255.255.240 172.16.0.5 89

R2
ip route 172.16.1.0 255.255.255.0 172.16.0.6 89

C)

R1
ip route 172.16.2.0 255.255.255.248 172.16.0.5 110

R2
ip route 172.16.1.0 255.255.255.0 172.16.0.6 110

D)

R1
ip route 172.16.2.0 255.255.255.224 172.16.0.6 111

R2
ip route 172.16.1.0 255.255.255.0 172.16.0.5 112

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: D

NEW QUESTION 526

- (Topic 4)

```

switchport trunk encapsulation dot1q
switchport mode trunk
switchport trunk allowed vlan 100,200,300
channel-group 1 mode active

SW1#show run interface fastEthernet 0/2
switchport trunk encapsulation dot1q
switchport mode trunk
switchport trunk allowed vlan 100,200
channel-group 1 mode active

SW2#show run interface fastEthernet 0/1
switchport trunk encapsulation dot1q
switchport mode trunk
switchport trunk allowed vlan 100,200,300
channel-group 1 mode active

SW2#show run interface fastEthernet 0/2
switchport trunk encapsulation dot1q
switchport mode trunk
switchport trunk allowed vlan 100,200,300
channel-group 1 mode active
    
```

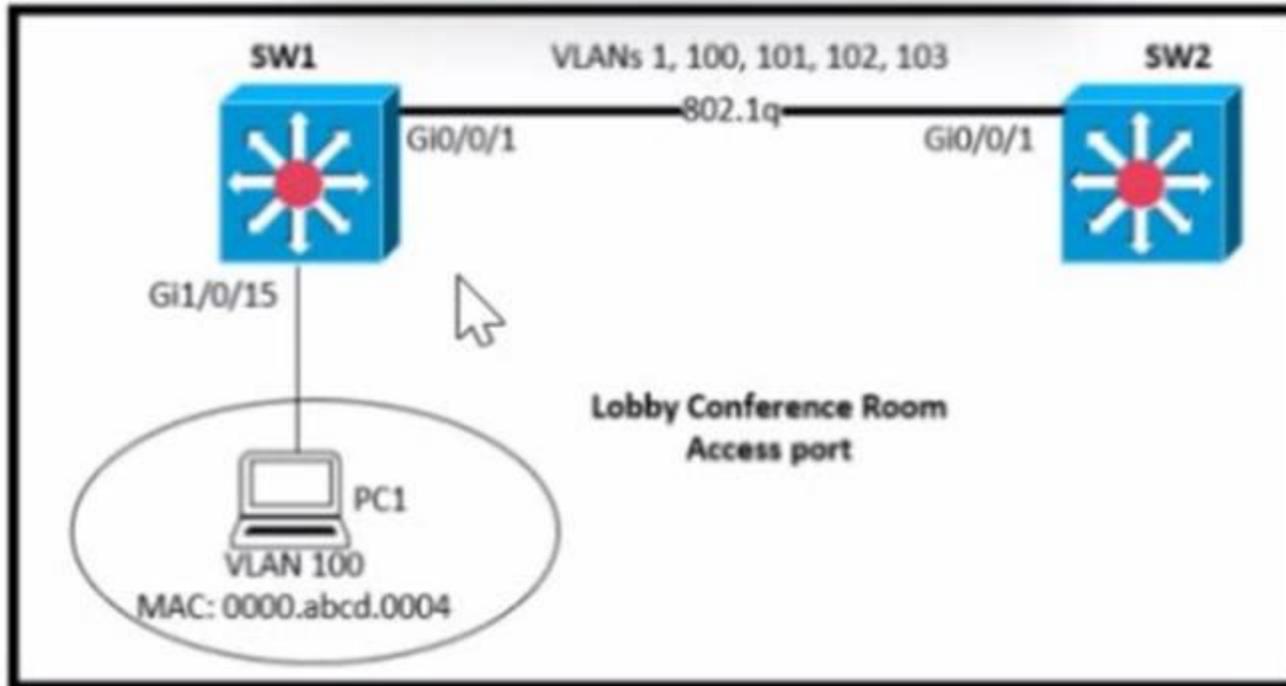
Refer to the exhibit. An engineer is building a new Layer 2 LACP EtherChannel between SW1 and SW2. and they executed the given show commands to verify the work Which additional task must be performed so that the switches successfully bundle the second member in the LACP port-channel?

- A. Configure the switchport trunk allowed vlan 300 command on SW1 port-channel 1
- B. Configure the switchport trunk allowed vlan 300 command on interface Fa0/2 on SW1.
- C. Configure the switchport trunk allowtd vlan add 300 command on interface FaO 2 on SW2.
- D. Configure the switchport trunk allowtd vlan add 300 command on SW1 port-channel 1

Answer: B

NEW QUESTION 529

- (Topic 4)



SW1 supports connectivity for a lobby conference room and must be secured. The engineer must limit the connectivity from PC1 to the SW1 and SW2 network. The MAC addresses allowed must be limited to two. Which configuration secures the conference room connectivity?

A)

```
interface gi1/0/15
switchport port-security mac-address 0000.abcd.0004 vlan 100
```

B)

```
interface gi1/0/15
switchport port-security
switchport port-security maximum 2
```

C)

```
interface gi1/0/15
switchport port-security mac-address 0000.abcd.0004 vlan 100
interface switchport secure-mac limit 2
```

D)

```
interface gi1/0/15
switchport port-security
switchport port-security mac-address 0000.abcd.0004 vlan 100
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

NEW QUESTION 532

- (Topic 4)

What must be considered for a locally switched FlexConnect AP if the VLANs that are used by the AP and client access are different?

- A. The APs must be connected to the switch with multiple links in LAG mode
- B. The switch port mode must be set to trunk
- C. The native VLAN must match the management VLAN of the AP
- D. IEEE 802.10 trunking must be disabled on the switch port.

Answer: C

NEW QUESTION 534

- (Topic 4)

Refer to the exhibit.

```
{
  "Test_Questions" : [
    "Automation",
    "Configuration",
  ],
  "Test_Exam_Level" : [
    "CCNA",
    "CCNP",
  ],
  "Test_Response" : [
    "Correct",
    "Incorrect",
  ]
}
```

How many arrays are present in the JSON data?

- A. one
- B. three
- C. six
- D. nine

Answer: C

NEW QUESTION 538

- (Topic 4)

Refer to the exhibit.

```
{
  "SW1" : ["Ten-GigabitEthernet0/0", "Ten-GigabitEthernet0/1"],
  "SW2" : ["Ten-GigabitEthernet0/0", "Ten-GigabitEthernet0/1"],
  "SW3" : ["Ten-GigabitEthernet0/0", "Ten-GigabitEthernet0/1"],
  "SW4" : ["Ten-GigabitEthernet0/0", "Ten-GigabitEthernet0/1"]
}
```

How many JSON objects are represented?

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

Answer: D

NEW QUESTION 540

- (Topic 4)

Why implement VRRP?

- A. to provide end users with a virtual gateway in a multivendor network
- B. to leverage a weighting scheme to provide uninterrupted service
- C. to detect link failures without the overhead of Bidirectional Forwarding Detection
- D. to hand over to end users the autodiscovery of virtual gateways

Answer: A

NEW QUESTION 542

- (Topic 4)

An engineer is installing a new wireless printer with a static IP address on the Wi-Fi network. Which feature must be enabled and configured to prevent connection issues with the printer?

- A. client exclusion
- B. passive client
- C. DHCP address assignment
- D. static IP tunneling

Answer: C

NEW QUESTION 544

- (Topic 4)

What does WPA3 provide in wireless networking?

- A. safeguards against brute force attacks with SAE
- B. optional Protected Management Frame negotiation
- C. backward compatibility with WPA and WPA2
- D. increased security and requirement of a complex configuration

Answer: A

Explanation:

<https://www.swascan.com/wi-fi-security/>

NEW QUESTION 546

- (Topic 3)

Which action implements physical access control as part of the security program of an organization?

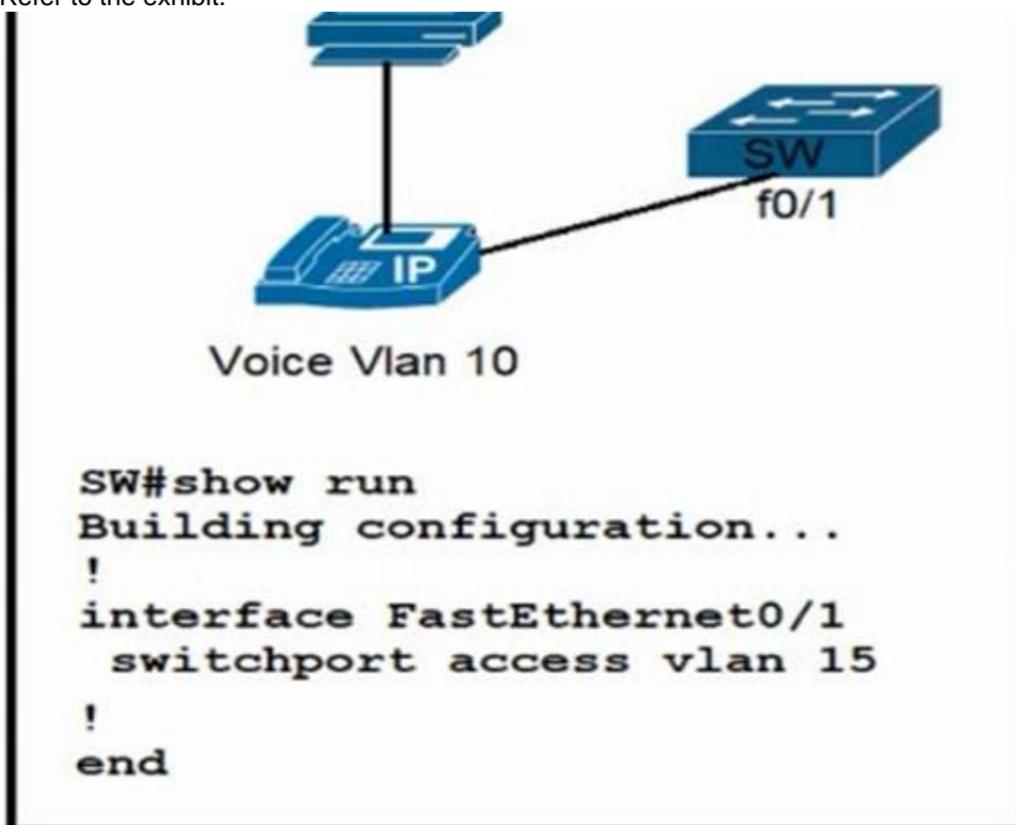
- A. configuring a password for the console port
- B. backing up syslogs at a remote location
- C. configuring enable passwords on network devices
- D. setting up IP cameras to monitor key infrastructure

Answer: A

NEW QUESTION 549

- (Topic 3)

Refer to the exhibit.



All VLANs are present in the VLAN database. Which command sequence must be applied to complete the configuration?

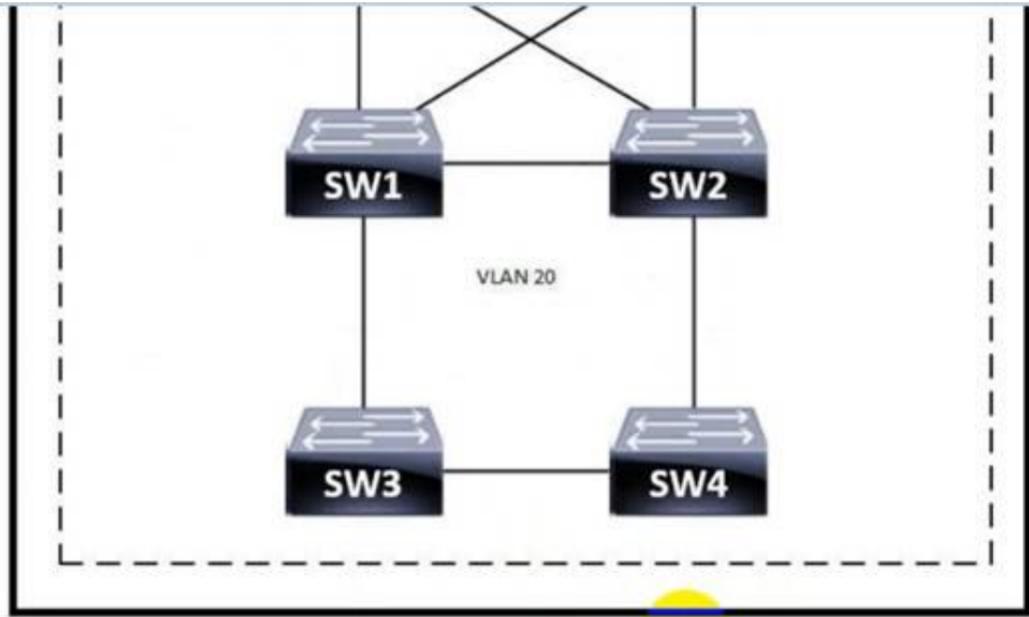
- A. Interface FastEthernet0/1 switchport trunk native vlan 10 switchport trunk allowed vlan 10,15
- B. Interface FastEthernet0/1 switchport mode trunk switchport trunk allowed vlan 10,15
- C. interface FastEthernet0/1 switchport mode access switchport voice vlan 10
- D. Interface FastEthernet0/1 switchport trunk allowed vlan add 10 vlan 10 private-vlan isolated

Answer: C

NEW QUESTION 552

- (Topic 3)

Refer to the exhibit.



Which switch becomes the root of a spanning tree for VLAN 20 if all li links are of equal speed?

```
SW1 = 24596 0018.184e.3c00
SW2 = 28692 004a.14e5.4077
SW3 = 32788 0022.55cf.dd00
SW4 = 64000 0041.454d.407f
```

- A. SW1
- B. SW2
- C. SW3
- D. SW4

Answer: C

NEW QUESTION 557

FILL IN THE BLANK - (Topic 3)

Drag and drop the REST API call methods for HTTP from the left onto the actions they perform on the right Not all methods are used.

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Chart, bar chart Description automatically generated

NEW QUESTION 558

- (Topic 3)

Refer to the exhibit.

```
Router1#show ip route
Gateway of last resort is 10.10.11.2 to network 0.0.0.0
 209.165.200.0/27 is subnetted, 1 subnets
 B   209.165.200.224 [20/0] via 10.10.12.2, 03:22:14
 209.165.201.0/27 is subnetted, 1 subnets
 B   209.165.201.0 [20/0] via 10.10.12.2, 02:26:33
 209.165.202.0/27 is subnetted, 1 subnets
 B   209.165.202.128 [20/0] via 10.10.12.2, 02:26:03
 10.0.0.0/8 is variably subnetted, 10 subnets, 4 masks
 O   10.10.13.0/25 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
 O   10.10.13.128/28 [110/2] via 10.10.10.5, 00:00:12, GigabitEthernet0/1
 O   10.10.13.144/28 [110/2] via 10.10.10.9, 00:01:57, GigabitEthernet0/2
 O   10.10.13.160/29 [110/2] via 10.10.10.5, 00:00:12, GigabitEthernet0/1
 O   10.10.13.208/29 [110/2] via 10.10.10.13, 00:01:57, GigabitEthernet0/3
 S*  0.0.0.0/0 [1/0] via 10.10.11.2
```

Which next-hop IP address does Routed use for packets destined to host 10 10.13.158?

- A. 10.10.10.5

- B. 10.10.11.2
- C. 10.10.12.2
- D. 10.10.10.9

Answer: A

NEW QUESTION 560

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