

200-301 Dumps

Cisco Certified Network Associate

<https://www.certleader.com/200-301-dumps.html>



NEW QUESTION 1

DRAG DROP - (Topic 3)

Drag and drop the Rapid PVST+ forwarding slate 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:

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

NEW QUESTION 2

- (Topic 3)

What are two benefits of FHRPs? (Choose two.)

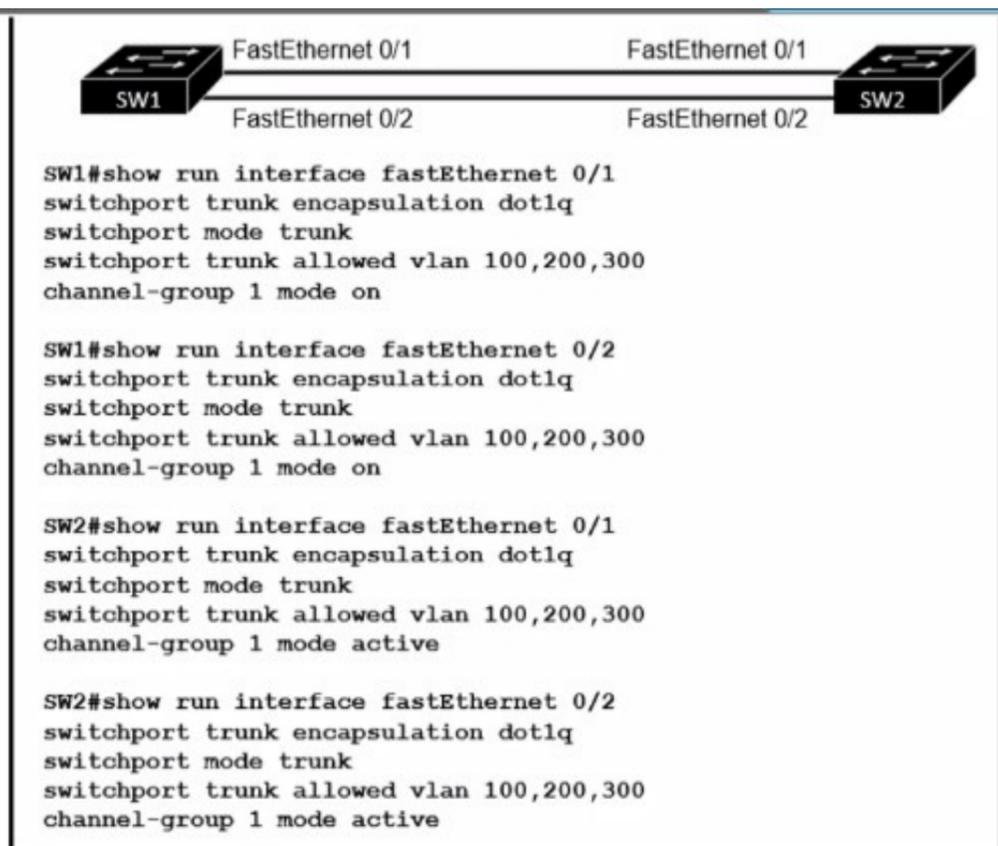
- A. They enable automatic failover of the default gateway.
- B. They allow multiple devices to serve as a single virtual gateway for clients in the network.
- C. They are able to bundle multiple ports to increase bandwidth.
- D. They prevent loops in the Layer 2 network.
- E. They allow encrypted traffic.

Answer: AB

NEW QUESTION 3

- (Topic 3)

Refer to the exhibit.



An engineer built a new L2 LACP EtherChannel between SW1 and SW2 and executed these show commands to verify the work. Which additional task allows the two switches to establish an LACP port channel?

- A. Change the channel-group mode on SW2 to auto
- B. Change the channel-group mode on SW1 to desirable.
- C. Configure the interface port-channel 1 command on both switches.
- D. Change the channel-group mode on SW1 to active or passive.

Answer: D

NEW QUESTION 4

- (Topic 3)

A network engineer must configure two new subnets using the address block 10.70.128.0/19 to meet these requirements:

- The first subnet must support 24 hosts
- The second subnet must support 472 hosts
- Both subnets must use the longest subnet mask possible from the address block Which two configurations must be used to configure the new subnets and meet a requirement to use the first available address in each subnet for the router interfaces? (Choose two)

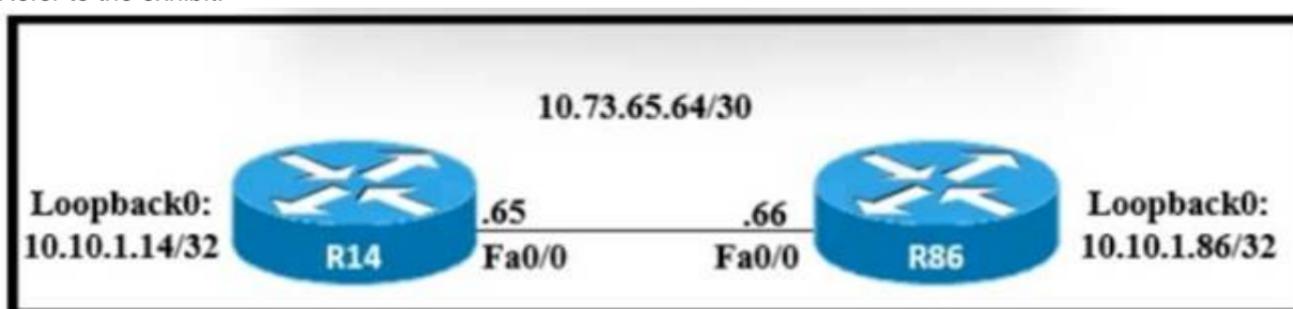
- A. interface vlan 123 ip address 10.70.159.1 255.255.254.0
- B. interface vlan 114 ip address 10.70.148.1 255.255.254.0
- C. interface vlan 472 ip address 10.70.133.17 255.255.255.192
- D. interface vlan 3002 ip address 10.70.147.17 255.255.255.224
- E. interface vlan 155 ip address 10.70.155.65 255.255.255.224

Answer: BD

NEW QUESTION 5

- (Topic 3)

Refer to the exhibit.



A static route must be configured on R14 to forward traffic for the 172.21.34.0/25 network that resides on R86 Which command must be used to fulfill the request?

- A. ip route 172.21.34.0 255.255.255.192 10.73.65.65
- B. ip route 172.21.34.0 255.255.255.0 10.73.65.65
- C. ip route 172.21.34.0 255.255.128.0 10.73.65.64
- D. ip route 172.21.34.0 255.255.255.128 10.73.65.66

Answer: D

NEW QUESTION 6

DRAG DROP - (Topic 3)

Drag and drop the characteristics of networking from the left onto the networking types on the right.

focused on network	Controller-Based Networking
focused on devices	
user input is a configuration	
user input is a policy	Traditional Networking
uses allow list security model	
uses block list security model	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

focused on network	Controller-Based Networking
uses allow list security model	
user input is a policy	
user input is a policy	Traditional Networking
uses block list security model	
user input is a configuration	

NEW QUESTION 7

DRAG DROP - (Topic 3)

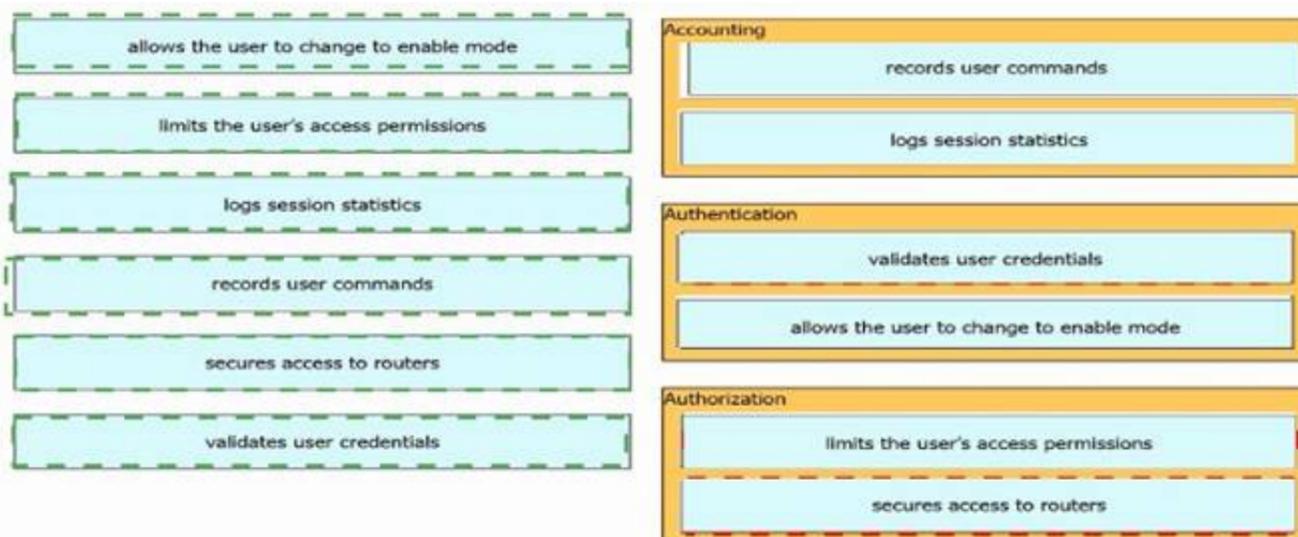
Drag and drop the descriptions of AAA services from the left onto the corresponding services on the right.

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

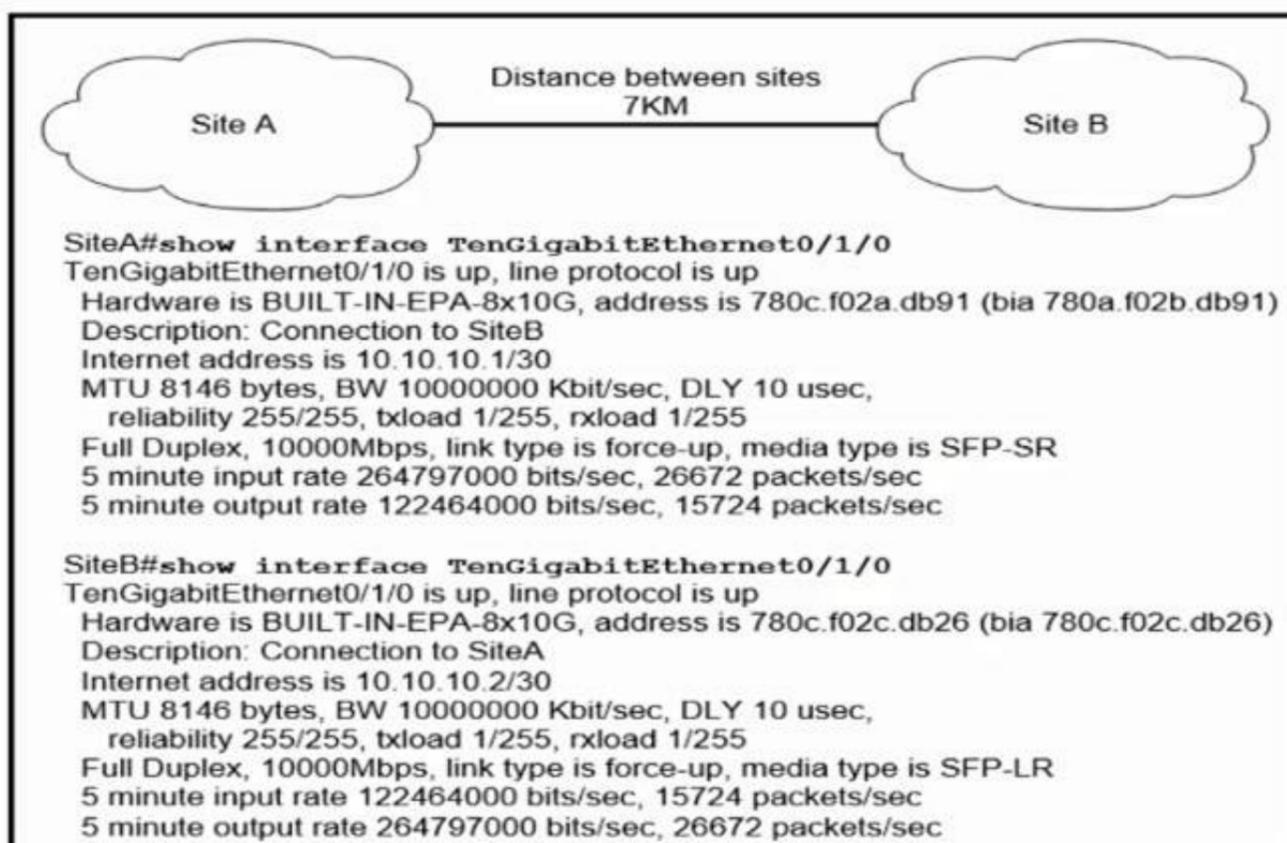
Explanation:



NEW QUESTION 8

- (Topic 3)

Refer to the exhibit.



Site A was recently connected to site B over a new single-mode fiber path. Users at site A report Intermittent connectivity Issues with applications hosted at site B. What is the reason for the problem?

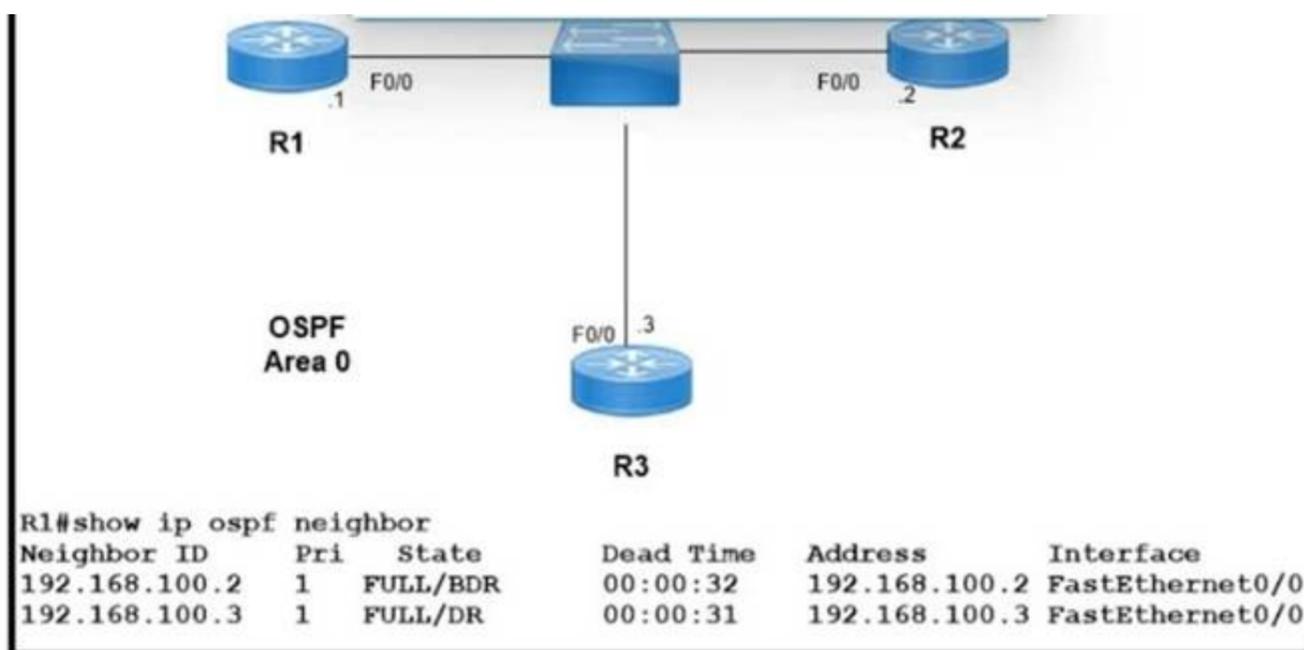
- A. Heavy usage is causing high latency.
- B. An incorrect type of transceiver has been inserted into a device on the link.
- C. physical network errors are being transmitted between the two sites.
- D. The wrong cable type was used to make the connection.

Answer: B

NEW QUESTION 9

- (Topic 3)

Refer to the exhibit.



Which two configurations must the engineer apply on this network so that R1 becomes the DR? (Choose two.)

A)

```

R1(config)#router ospf 1
R1(config-router)#router-id 192.168.100.1
    
```

B)

```

R1(config)#interface fastethernet 0/0
R1(config-if)#ip ospf priority 200
    
```

C)

```

R3(config)#interface fastethernet 0/0
R3(config-if)#ip ospf priority 0
    
```

D)

```

R1(config)#interface fastethernet 0/0
R1(config-if)#ip ospf priority 0
    
```

E)

```

R3(config)#interface fastethernet 0/0
R3(config-if)#ip ospf priority 200
    
```

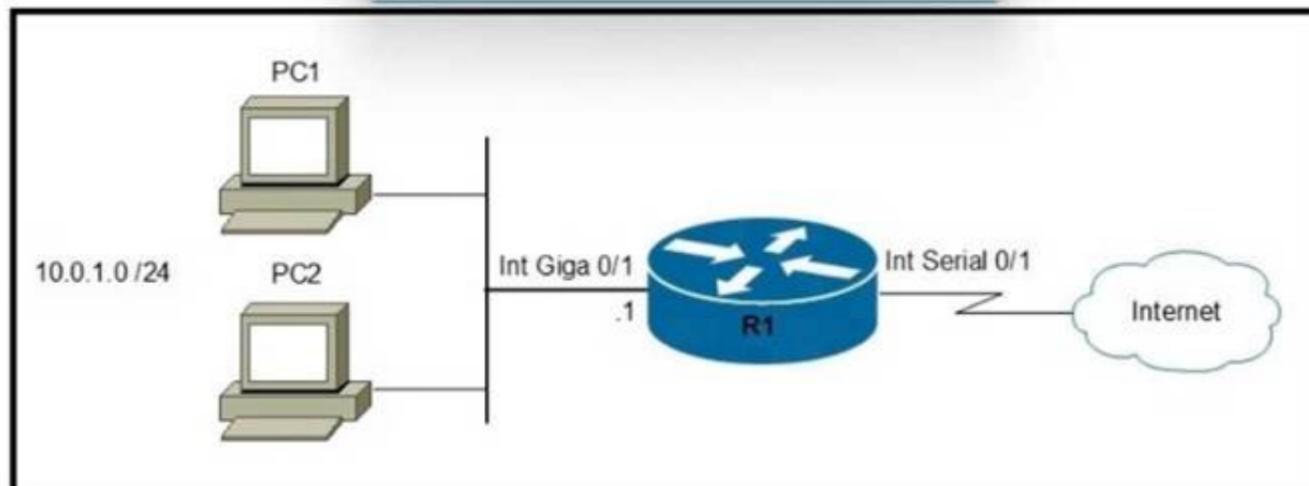
- A. Option A
- B. Option B
- C. Option C
- D. Option D
- E. Option E

Answer: BC

NEW QUESTION 10

- (Topic 3)

Refer to the exhibit.



Which two commands must be configured on router R1 to enable the router to accept secure remote-access connections? (Choose two)

- A. transport input telnet
- B. crypto key generate rsa
- C. ip ssh pubkey-chain
- D. login console
- E. username cisco password 0 Cisco

Answer: BE

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 12

- (Topic 3)

Refer to the exhibit.

RIP	10.1.1.16/28[120/5]	via	F0/0
OSPF	10.1.1.0/24[110/30]	via	F0/1
OSPF	10.1.1.0/24[110/40]	via	F0/2
EIGRP	10.1.0.0/26[90/20]	via	F0/3
EIGRP	10.0.0.0/8 [90/133]	via	F0/4

Packets received by the router from BGP enter via a serial interface at 209 165 201 1 Each route is present within the routing table Which interface is used to forward traffic with a destination IP of 10.1.1.19?

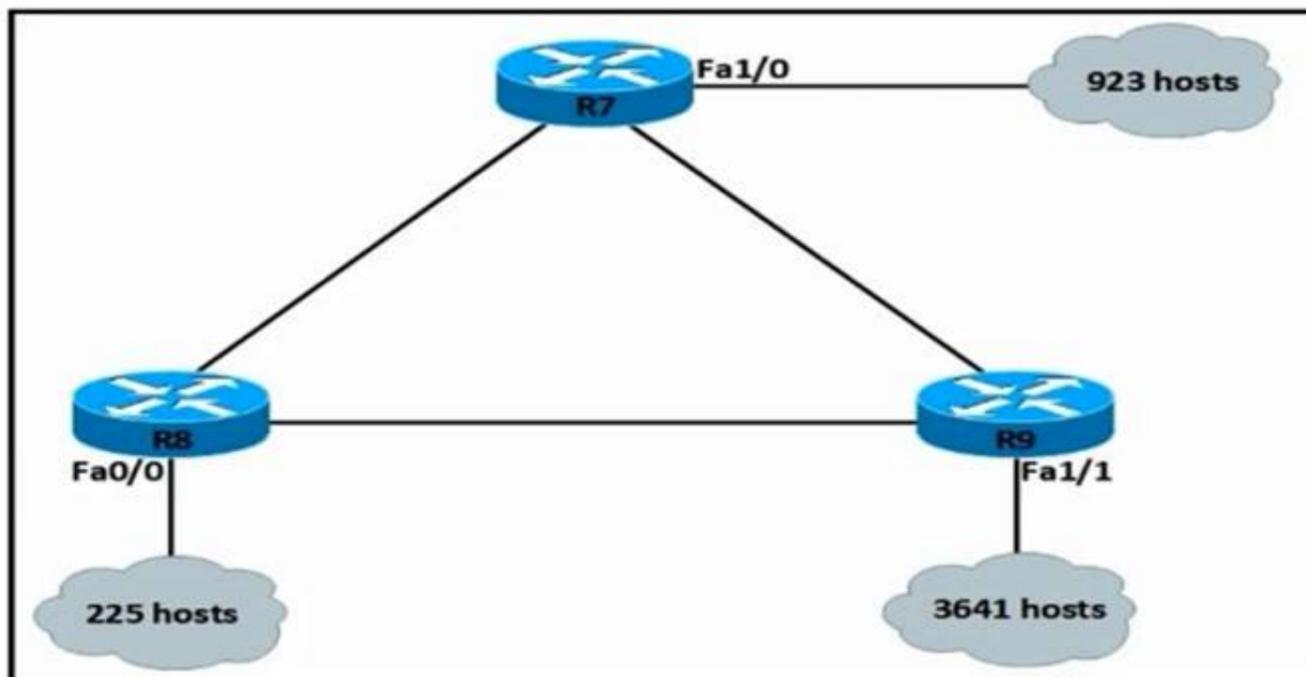
- A. F0/4
- B. F0/0
- C. F0/1
- D. F0/3

Answer: B

NEW QUESTION 15

- (Topic 3)

Refer to the exhibit.



An IP subnet must be configured on each router that provides enough addresses for the number of assigned hosts and anticipates no more than 10% growth for now hosts. Which configuration script must be used?

A)

```
R7#
configure terminal
interface Fa1/0
ip address 10.1.56.1 255.255.252.0
no shutdown
```

```
R8#
configure terminal
interface Fa0/0
ip address 10.9.32.1 255.255.255.0
no shutdown
```

```
R9#
configure terminal
interface Fa1/1
ip address 10.23.96.1 255.255.240.0
no shutdown
```

B)

```
R7#
configure terminal
interface Fa1/0
ip address 10.1.56.1 255.255.248.0
no shutdown
```

```
R8#
configure terminal
interface Fa0/0
ip address 10.9.32.1 255.255.254.0
no shutdown
```

```
R9#
configure terminal
interface Fa1/1
ip address 10.23.96.1 255.255.248.0
no shutdown
```

C)

```
R7#
configure terminal
interface Fa1/0
ip address 10.1.56.1 255.255.240.0
no shutdown

R8#
configure terminal
interface Fa0/0
ip address 10.9.32.1 255.255.224.0
no shutdown

R9#
configure terminal
interface Fa1/1
ip address 10.23.96.1 255.255.192.0
no shutdown
```

D)

```
R7#
configure terminal
interface Fa1/0
ip address 10.1.56.1 255.255.192.0
no shutdown

R8#
configure terminal
interface Fa0/0
ip address 10.9.32.1 255.255.224.0
no shutdown

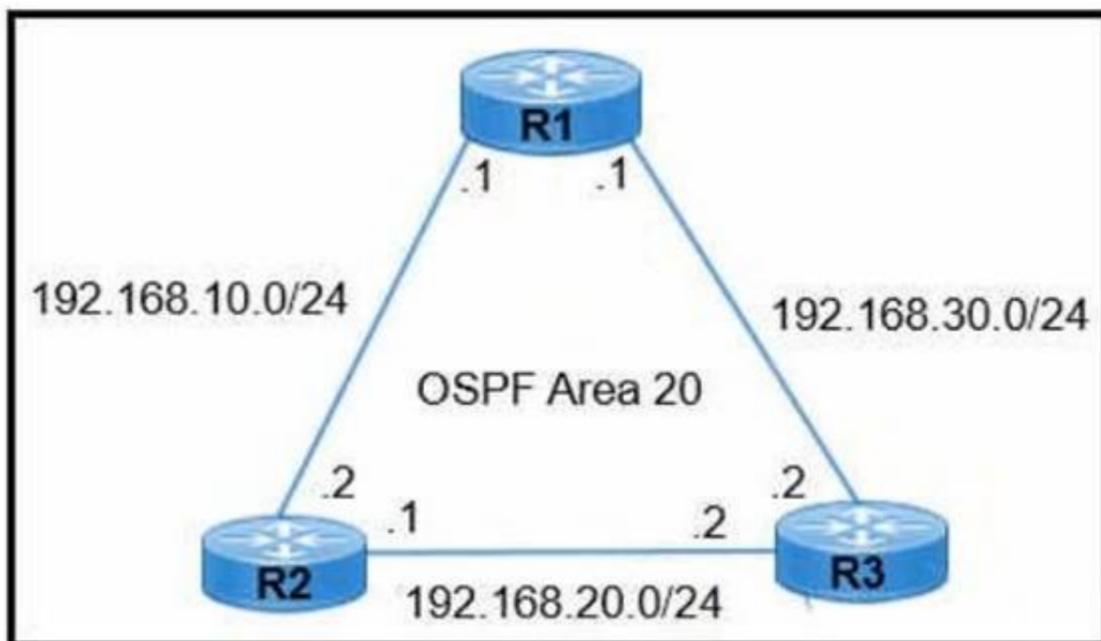
R9#
configure terminal
interface Fa1/1
ip address 10.23.96.1 255.255.128.0
no shutdown
```

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

Answer: C

NEW QUESTION 19

- (Topic 3)
Refer to the exhibit.



R1 learns all routes via OSPF Which command configures a backup static route on R1 to reach the 192.168.20.0/24 network via R3?

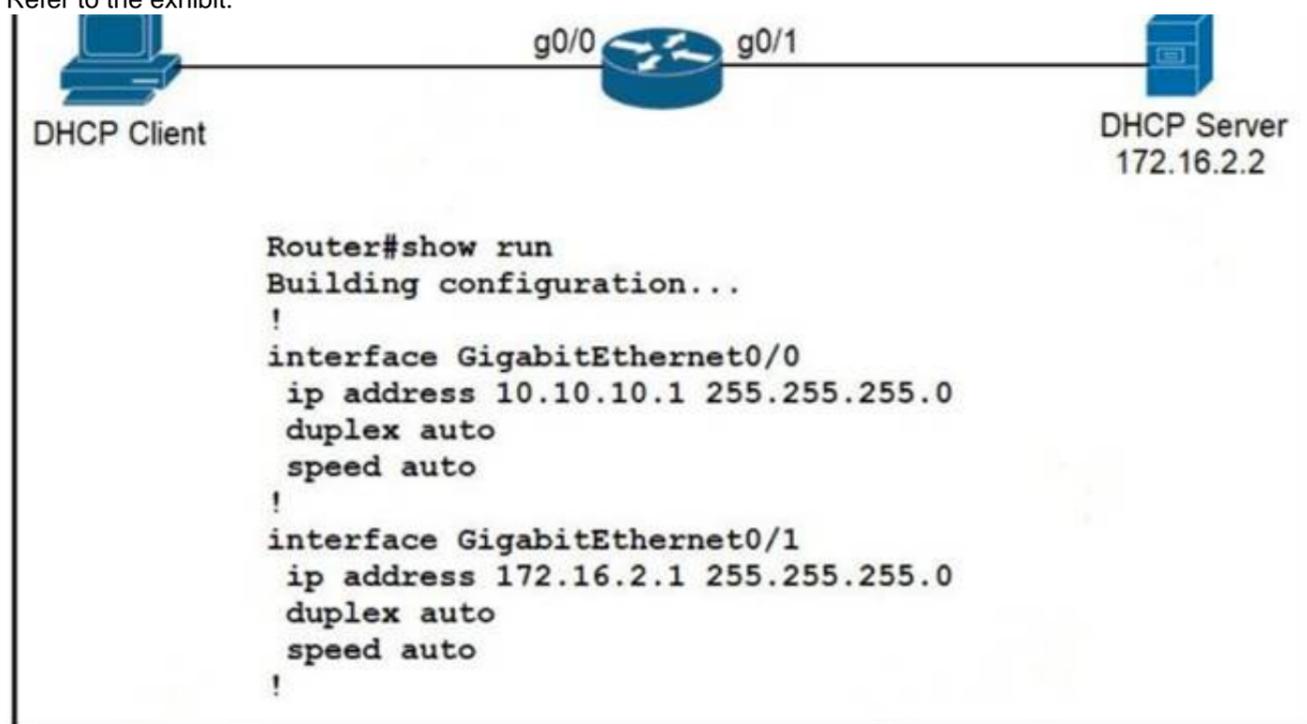
- A. R1(config)#ip route 192.168.20.0 255.255.0.0 192.168.30.2
- B. R1(config)#ip route 192.168.20.0 255.255.255.0 192.168.30.2 90
- C. R1(config)#ip route 192.168.20.0 255.255.255.0 192.168.30.2 111
- D. R1(config)#ip route 192.168.20.0 255.255.255.0 192.168.30.2

Answer: C

NEW QUESTION 24

- (Topic 3)

Refer to the exhibit.



An engineer is configuring a new router on the network and applied this configuration. Which additional configuration allows the PC to obtain its IP address from a DHCP server?

- A. Configure the ip dhcp relay information command under interface Gi0/1.
- B. Configure the ip dhcp smart-relay command globally on the router
- C. Configure the ip helper-address 172.16.2.2 command under interface Gi0/0
- D. Configure the ip address dhcp command under interface Gi0/0

Answer: C

NEW QUESTION 28

- (Topic 3)

Which two network actions occur within the data plane? (Choose two.)

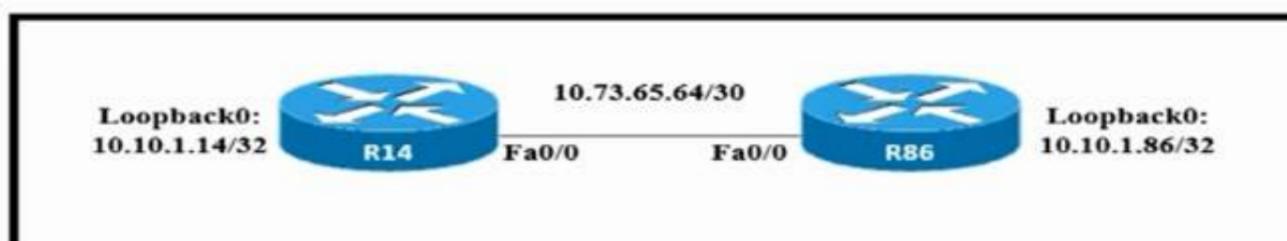
- A. Add or remove an 802.1Q trunking header.
- B. Make a configuration change from an incoming NETCONF RPC.
- C. Run routing protocols.
- D. Match the destination MAC address to the MAC address table.
- E. Reply to an incoming ICMP echo request.

Answer: BD

NEW QUESTION 29

- (Topic 3)

Refer to the exhibit.



Which configuration allows routers R14 and R86 to form an OSPFv2 adjacency while acting as a central point for exchanging OSPF information between routers?
A)

```
R14#  
interface Loopback0  
ip ospf 10 area 0  
  
interface FastEthernet0/0  
ip address 10.73.65.65 255.255.255.252  
ip ospf network broadcast  
ip ospf 10 area 0  
ip mtu 1500  
  
router ospf 10  
ip ospf priority 255  
router-id 10.10.1.14
```

```
R86#  
interface Loopback0  
ip ospf 10 area 0  
  
interface FastEthernet0/0  
ip address 10.73.65.66 255.255.255.252  
ip ospf network broadcast  
ip ospf 10 area 0  
ip mtu 1500
```

B)

```
R14#  
interface FastEthernet0/0  
ip address 10.73.65.65 255.255.255.252  
ip ospf network broadcast  
ip ospf priority 255  
ip mtu 1500  
  
router ospf 10  
router-id 10.10.1.14  
network 10.10.1.14 0.0.0.0 area 0  
network 10.73.65.64 0.0.0.3 area 0  
R86#  
interface FastEthernet0/0  
ip address 10.73.65.66 255.255.255.252  
ip ospf network broadcast  
ip mtu 1500  
  
router ospf 10  
router-id 10.10.1.86  
network 10.10.1.86 0.0.0.0 area 0  
network 10.73.65.64 0.0.0.3 area 0
```

C)

```
R14#  
interface FastEthernet0/0  
ip address 10.73.65.65 255.255.255.252  
ip ospf network broadcast  
ip ospf priority 0  
ip mtu 1400  
  
router ospf 10  
router-id 10.10.1.14  
network 10.10.1.14 0.0.0.0 area 0  
network 10.73.65.64 0.0.0.3 area 0  
R86#  
interface Loopback0  
ip address 10.10.1.86 255.255.255.255
```

D)

```
R14#
interface FastEthernet0/0
ip address 10.73.65.65 255.255.255.252
ip ospf network broadcast
ip ospf priority 255
ip mtu 1500

router ospf 10
router-id 10.10.1.14
network 10.10.1.14 0.0.0.0 area 0
network 10.73.65.64 0.0.0.3 area 0
R86#
interface FastEthernet0/0
ip address 10.73.65.66 255.255.255.252
ip ospf network broadcast
ip mtu 1400

router ospf 10
router-id 10.10.1.86
network 10.10.1.86 0.0.0.0 area 0
network 10.73.65.64 0.0.0.3 area 0
```

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

Answer: D

NEW QUESTION 31

- (Topic 3)

What is an expected outcome when network management automation is deployed?

- A. A distributed management plane must be used.
- B. Software upgrades are performed from a central controller
- C. Complexity increases when new device configurations are added
- D. Custom applications are needed to configure network devices

Answer: B

NEW QUESTION 36

- (Topic 3)

What is one reason to implement LAG on a Cisco WLC?

- A. to increase security and encrypt management frames
- B. to provide link redundancy and load balancing
- C. to allow for stateful and link-state failover
- D. to enable connected switch ports to failover and use different VLANs

Answer: B

NEW QUESTION 40

- (Topic 3)

What is a requirement for nonoverlapping Wi-Fi channels?

- A. different security settings
- B. discontinuous frequency ranges
- C. different transmission speeds
- D. unique SSIDs

Answer: B

NEW QUESTION 44

- (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 45

DRAG DROP - (Topic 3)

Drag and drop the facts about wireless architectures from the left onto the types of access point on the right. Not all options are used.

supports automatic deployment	Autonomous Access Point
managed from a web-based dashboard	
accessible for management via Telnet, SSH, or a web GUI	Cloud-Based Access Point
configured and managed by a WLC	
requires a management IP address	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

supports automatic deployment	Autonomous Access Point
managed from a web-based dashboard	
accessible for management via Telnet, SSH, or a web GUI	Cloud-Based Access Point
configured and managed by a WLC	
requires a management IP address	

NEW QUESTION 50

DRAG DROP - (Topic 3)

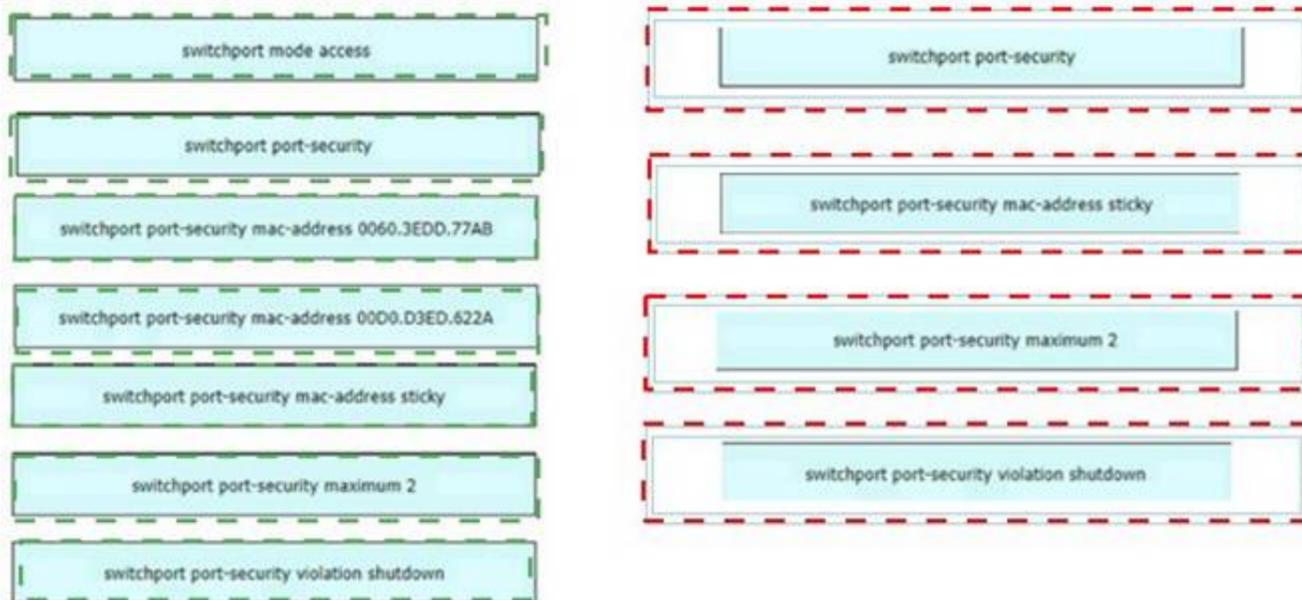
An engineer is tasked to configure a switch with port security to ensure devices that forward unicasts multicasts and broadcasts are unable to flood the port The port must be configured to permit only two random MAC addresses at a time Drag and drop the required configuration commands from the left onto the sequence on the right Not all commands are used.

switchport mode access	1
switchport port-security	2
switchport port-security mac-address 0060.3EDD.77AB	3
switchport port-security mac-address 00D0.D3ED.622A	4
switchport port-security mac-address sticky	
switchport port-security maximum 2	
switchport port-security violation shutdown	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 55

- (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 60

- (Topic 3)

Refer to the exhibit.

```

service timestamps debug datetime msec
service timestamps log datetime msec
service password-encryption
!
hostname R4
!
boot-start-marker
boot-end-marker
!
ip cef
!
interface FastEthernet0/0
description WAN_INTERFACE
ip address 10.0.1.2 255.255.255.252
ip access-group 100 in
!
interface FastEthernet0/1
description LAN_INTERFACE
ip address 10.148.2.1 255.255.255.0
duplex auto
speed auto
!
ip forward-protocol nd
!
access-list 100 permit eigrp any any
access-list 100 permit icmp any any
access-list 100 permit tcp 10.149.3.0 0.0.0.255 host 10.0.1.2 eq 22
access-list 100 permit tcp any any eq 80
access-list 100 permit tcp any any eq 443
access-list 100 deny ip any any log
    
```

Which configuration enables DHCP addressing for hosts connected to interface FastEthernetO/1 on router R4?

- A. interface FastEthernet0/0 ip helper-address 10.0.1.1access-list 100 permit udp host 10.0.1.1 eq bootps host 10.148.2.1
- B. interface FastEthernet0/1 ip helper-address 10.0.1.1!access-list 100 permit tcp host 10.0.1.1 eq 67 host 10.148.2.1
- C. interface FastEthernetO/0 ip helper-address 10.0.1.1!access-list 100 permit host 10.0.1.1 host 10.148.2.1 eq bootps

D. interface FastEthernet0/1 ip helper-address 10.0.1.1!access-list 100 permit udp host 10.0.1.1 eq bootps host 10.148.2.1

Answer: B

NEW QUESTION 62

- (Topic 2)

What are two differences between optical-fiber cabling and copper cabling? (Choose two)

- A. Light is transmitted through the core of the fiber
- B. A BNC connector is used for fiber connections
- C. The glass core component is encased in a cladding
- D. Fiber connects to physical interfaces using Rj-45 connections
- E. The data can pass through the cladding

Answer: AC

NEW QUESTION 65

- (Topic 2)

Refer to the exhibit.

```
R1#show ip route
#output suppressed

Gateway of last resort is 192.168.14.4 to network 0.0.0.0

C    172.16.1.128/25 is directly connected, GigabitEthernet1/1/0
C    192.168.12.0/24 is directly connected, FastEthernet0/0
C    192.168.13.0/24 is directly connected, FastEthernet0/1
C    192.168.14.0/24 is directly connected, FastEthernet1/0
C    172.16.16.1 is directly connected, Loopback1
     192.168.10.0/24 is variably subnetted, 3 subnets, 3 masks
O    192.168.10.0/24 [110/2] via 192.168.14.4, 00:02:01, FastEthernet1/0
O    192.168.10.32/27 [110/11] via 192.168.13.3, 00:00:52, FastEthernet0/1
O    192.168.0.0/16 [110/2] via 192.168.15.5, 00:05:01, FastEthernet1/1
D    192.168.10.1/32 [90/52778] via 192.168.12.2, 00:03:44, FastEthernet0/0
O*E2 0.0.0.0/0 [110/1] via 192.168.14.4, 00:00:10, FastEthernet1/0
```

If R1 receives a packet destined to 172.161.1, to which IP address does it send the packet?

- A. 192.168.12.2
- B. 192.168.13.3
- C. 192.168.14.4
- D. 192.168.15.5

Answer: C

NEW QUESTION 68

- (Topic 2)

What is a capability of FTP in network management operations?

- A. encrypts data before sending between data resources
- B. devices are directly connected and use UDP to pass file information
- C. uses separate control and data connections to move files between server and client
- D. offers proprietary support at the session layer when transferring data

Answer: C

Explanation:

The File Transfer Protocol (FTP) is a standard communication protocol used for the transfer of computer files from a server to a client on a computer network. FTP is built on a client-server model architecture using separate control and data connections between the client and the server.

NEW QUESTION 73

- (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 74

DRAG DROP - (Topic 2)

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

sends transmissions in sequence	TCP
transmissions include an 8-byte header	
transmits packets as a stream	
transmits packets individually	UDP
uses a higher transmission rate to support latency-sensitive applications	
uses a lower transmission rate to ensure reliability	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

sends transmissions in sequence	TCP
transmissions include an 8-byte header	
transmits packets as a stream	
transmits packets individually	UDP
uses a higher transmission rate to support latency-sensitive applications	
uses a lower transmission rate to ensure reliability	

NEW QUESTION 79

- (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 84

- (Topic 2)

Which two protocols must be disabled to increase security for management connections to a Wireless LAN Controller? (Choose two)

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

Answer: AC

NEW QUESTION 88

- (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 92

- (Topic 2)

Router A learns the same route from two different neighbors, one of the neighbor routers is an OSPF neighbor and the other is an EIGRP neighbor. What is the administrative distance of the route that will be installed in the routing table?

- A. 20
- B. 90
- C. 110
- D. 115

Answer: B

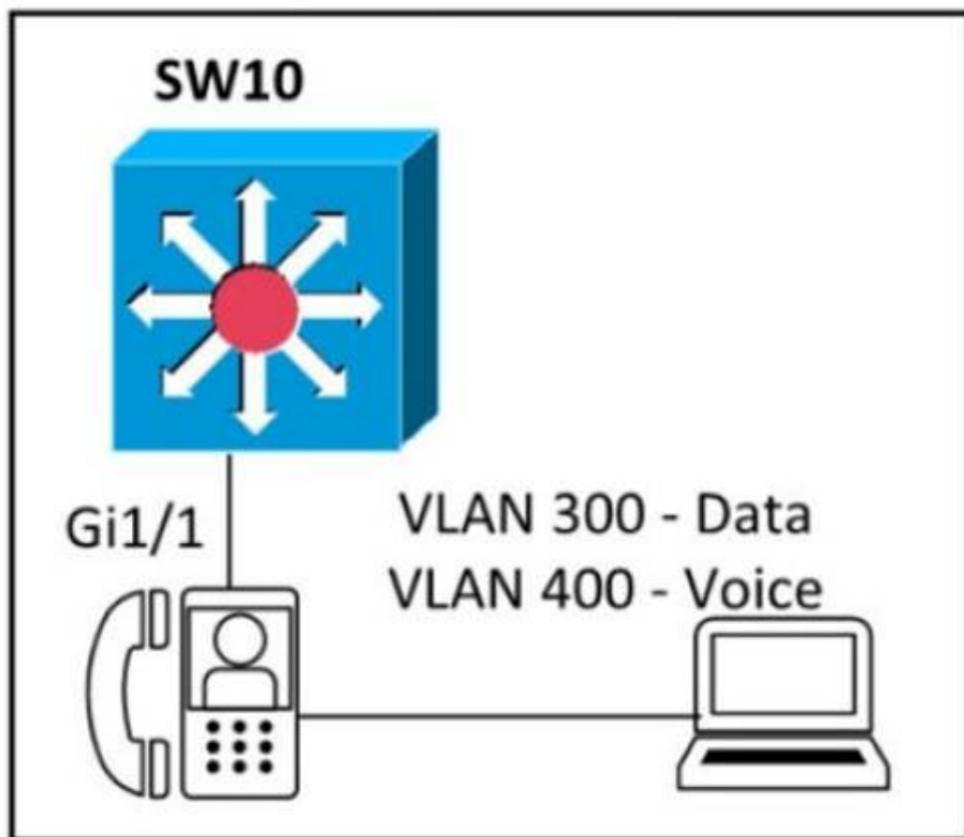
Explanation:

The Administrative distance (AD) of EIGRP is 90 while the AD of OSPF is 110 so EIGRP route will be chosen to install into the routing table.

NEW QUESTION 93

- (Topic 2)

Refer to the exhibit.



An engineer must configure GigabitEthernet1/1 to accommodate voice and data traffic Which configuration accomplishes this task?

```
interface gigabitethernet1/1
switchport mode access
switchport access vlan 300
switchport voice vlan 400
```

```
interface gigabitethernet1/1
switchport mode trunk
switchport trunk vlan 300
switchport voice vlan 400
```

```
interface gigabitethernet1/1
switchport mode trunk
switchport trunk vlan 300
switchport trunk vlan 400
```

```
interface gigabitethernet1/1
switchport mode access
switchport voice vlan 300
switchport access vlan 400
```

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

Answer: A

NEW QUESTION 98

- (Topic 2)

What is a similarity between 1000BASE-LX and 1000BASE-T standards?

- A. Both use the same data-link header and trailer formats
- B. Both cable types support LP connectors
- C. Both cable types support Rj-45 connectors
- D. Both support up to 550 meters between nodes

Answer: A

Explanation:

"In computer networking, Gigabit Ethernet (GbE or 1 GigE) is the term applied to transmitting Ethernet frames at a rate of a gigabit per second." Both standards use Ethernet framing (same headers and trailers)

NEW QUESTION 103

DRAG DROP - (Topic 2)

Refer to the exhibit.

```
C:\>ipconfig/all

Windows IP Configuration

Host Name . . . . . : Inspiron15
Primary Dns Suffix . . . . . :
Node Type . . . . . : Mixed
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No

Wireless LAN adapter Local Area Connection* 12:

Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . . . . . :
Description . . . . . : Microsoft Wi-Fi Direct Virtual Adapter
Physical Address. . . . . : 1A-76-3F-7C-57-DF
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . . : Yes

Wireless LAN adapter Wi-Fi:

Connection-specific DNS Suffix . . . . . :
Description . . . . . : Dell Wireless 1703 802.11b/g/n (2.4GHz)
Physical Address. . . . . : B8-76-3F-7C-57-DF
DHCP Enabled. . . . . : No
Autoconfiguration Enabled . . . . . : Yes
Link-local IPv6 Address . . . . . : fe80::e09f:9839:6e86:f755%12(Preferred)
. . . . . : 192.168.1.20(Preferred)
. . . . . : 255.255.255.0
. . . . . : 192.168.1.1
DHCPv6 IAID . . . . . : 263747135
DHCPv6 Client DUID. . . . . : 00-01-00-01-18-E6-32-43-B8-76-3F-7C-57-DF
. . . . . : 192.168.1.15
. . . . . : 192.168.1.16
NetBIOS over Tcpi. . . . . : Enabled
```

An engineer is tasked with verifying network configuration parameters on a client workstation to report back to the team lead. Drag and drop the node identifiers from the left onto the network parameters on the right.

192.168.1.1	broadcast address
192.168.1.20	default gateway
192.168.1.254	host IP address
192.168.1.255	last assignable IP address in the subnet
B8-76-3F-7C-57-DF	MAC address

- A. Mastered
- B. Not Mastered

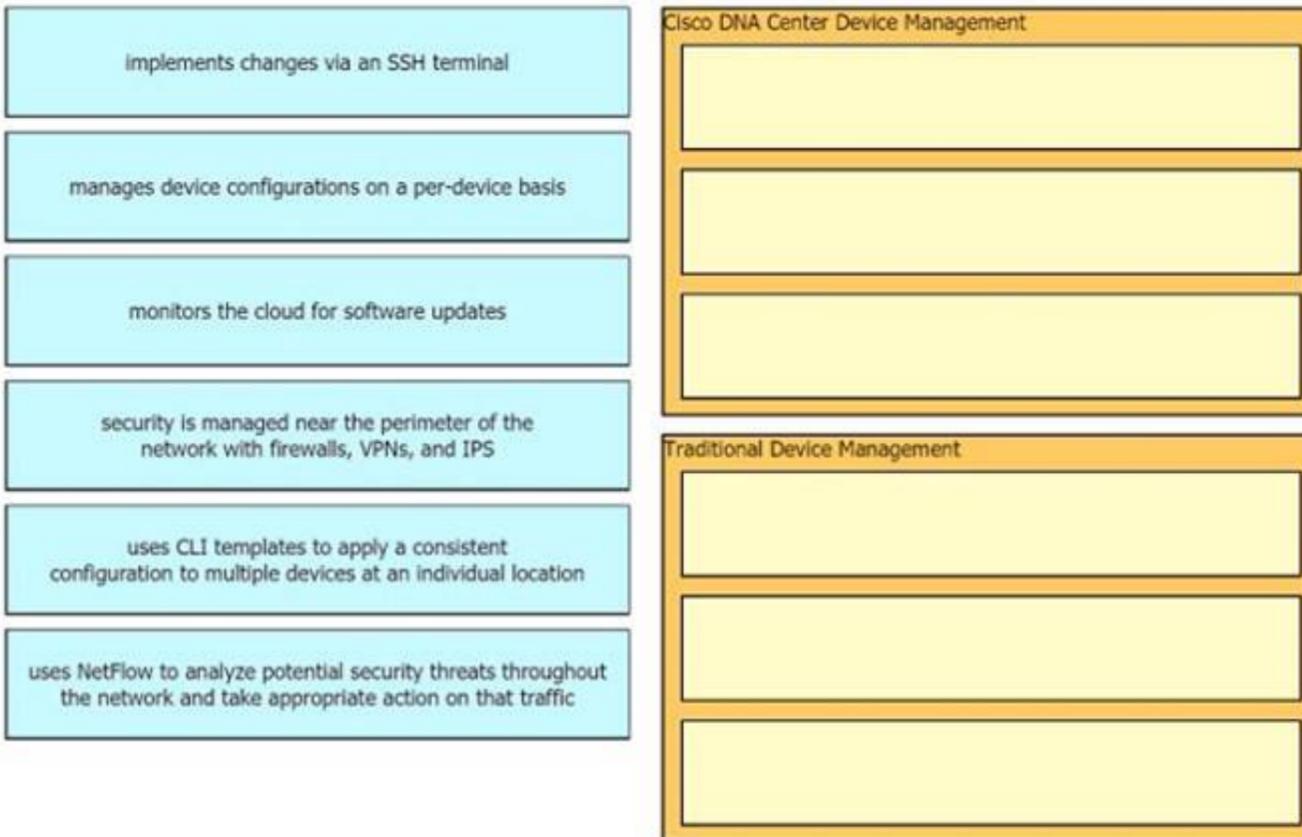
Answer: A

Explanation:

NEW QUESTION 105

DRAG DROP - (Topic 2)

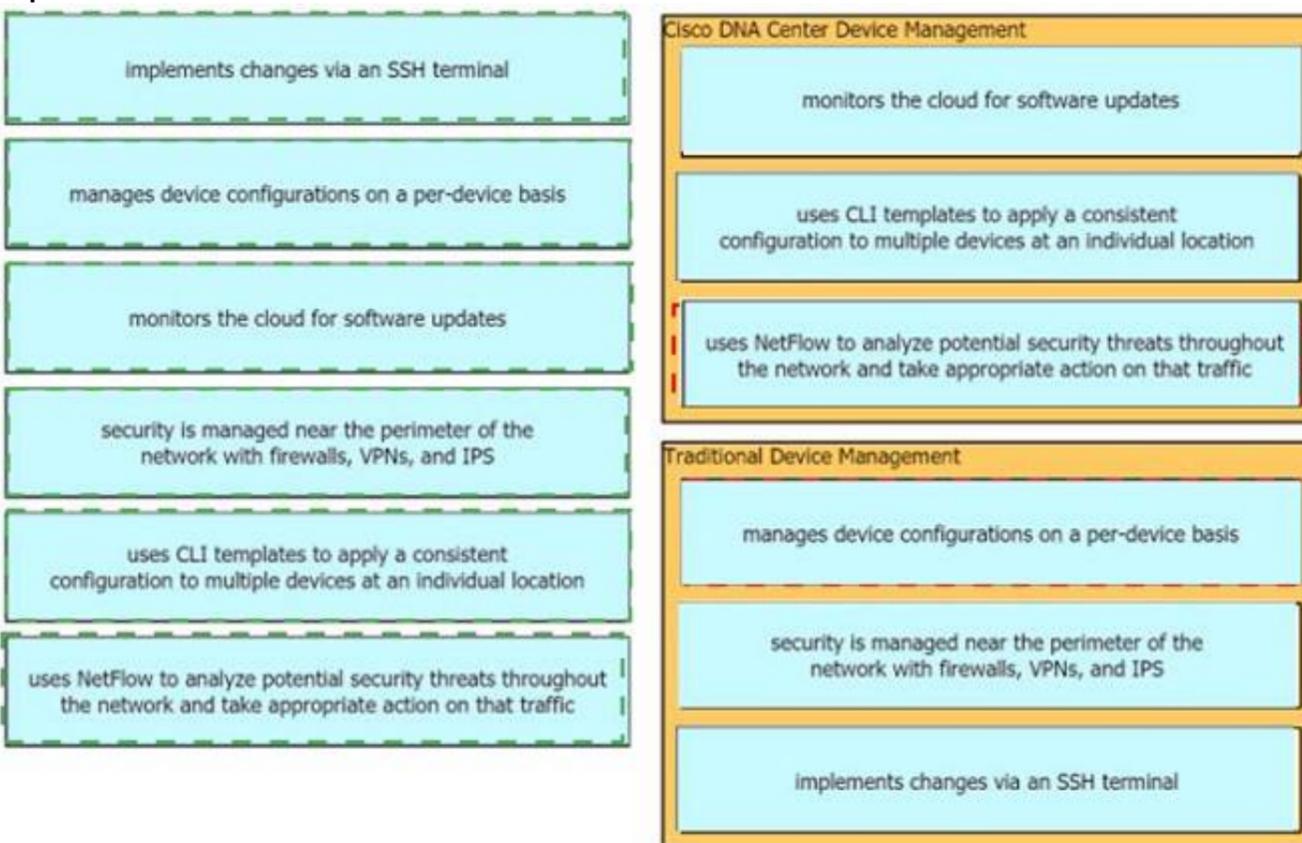
Drag the descriptions of device management from the left onto the types of device management on the right.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 109

- (Topic 2)
Refer to the exhibit.

```
SW1#sh lacp neighbor
Flags: S - Device is requesting Slow LACPDUs
       F - Device is requesting Fast LACPDUs
       A - Device is in Active mode       P - Device is in Passive mode

Channel group 35 neighbors

Partner's information:

Port      Flags  LACP port
Port      Priority  Dev ID      Age      Admin  Oper  Port  Port
Et1/0     SP      32768      aabb.cc80.7000  8s     0x0   0x23  0x101  0x3C
Et1/1     SP      32768      aabb.cc80.7000  8s     0x0   0x23  0x102  0x3C
```

Based on the LACP neighbor status, in which mode is the SW1 port channel configured?

- A. passive
- B. mode on
- C. auto
- D. active

Answer: D

Explanation:

From the neighbor status, we notice the "Flags" are SP. "P" here means the neighbor is in Passive mode. In order to create an Etherchannel interface, the (local) SW1 ports should be in Active mode. Moreover, the "Port State" in the exhibit is "0x3c" (which equals to "00111100 in binary format). Bit 3 is "1" which means the ports are synchronizing -
> the ports are working so the local ports should be in Active mode.

NEW QUESTION 112

- (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 116

DRAG DROP - (Topic 2)

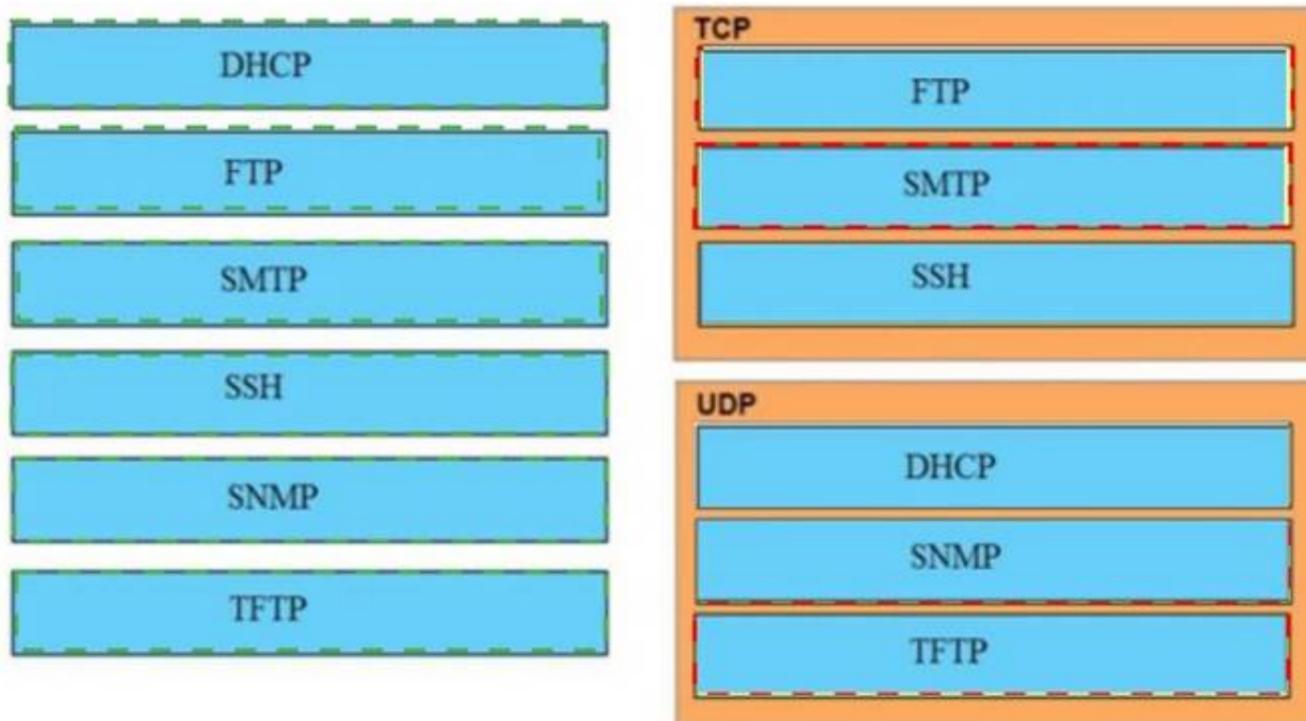
Drag and drop the application protocols from the left onto the transport protocols that it uses on the right

DHCP	TCP
FTP	
SMTP	
SSH	
SNMP	UDP
TFTP	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 121

- (Topic 2)

When the active router in an HSRP group fails, what router assumes the role and forwards packets?

- A. backup
- B. standby
- C. listening
- D. forwarding

Answer: B

NEW QUESTION 126

- (Topic 2)

Refer to the exhibit.

```
Router#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
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route

Gateway of last resort is 209.165.202.131 to network 0.0.0.0

S*    0.0.0.0/0 [1/0] via 209.165.202.131
      209.165.200.0/27 is subnetted, 1 subnets
S      209.165.200.224 [254/0] via 209.165.202.129
S      209.165.201.0/27 is subnetted, 1 subnets
S      209.165.201.0 [1/0] via 209.165.202.130
```

Which command configures a floating static route to provide a backup to the primary link?

- A. ip route 0.0.0.0 0.0.0.0 209.165.202.131
- B. ip route 209.165.201.0 255.255.255.224 209.165.202.130
- C. ip route 0.0.0.0 0.0.0.0 209.165.200.224
- D. ip route 209.165.200.224 255.255.255.224 209.165.202.129 254

Answer: D

NEW QUESTION 128

- (Topic 2)

Which command must be entered to configure a DHCP relay?

- A. ip helper-address
- B. ip address dhcp
- C. ip dhcp pool
- D. ip dhcp relay

Answer: A

NEW QUESTION 131

- (Topic 2)

Which design element is a best practice when deploying an 802.11b wireless infrastructure?

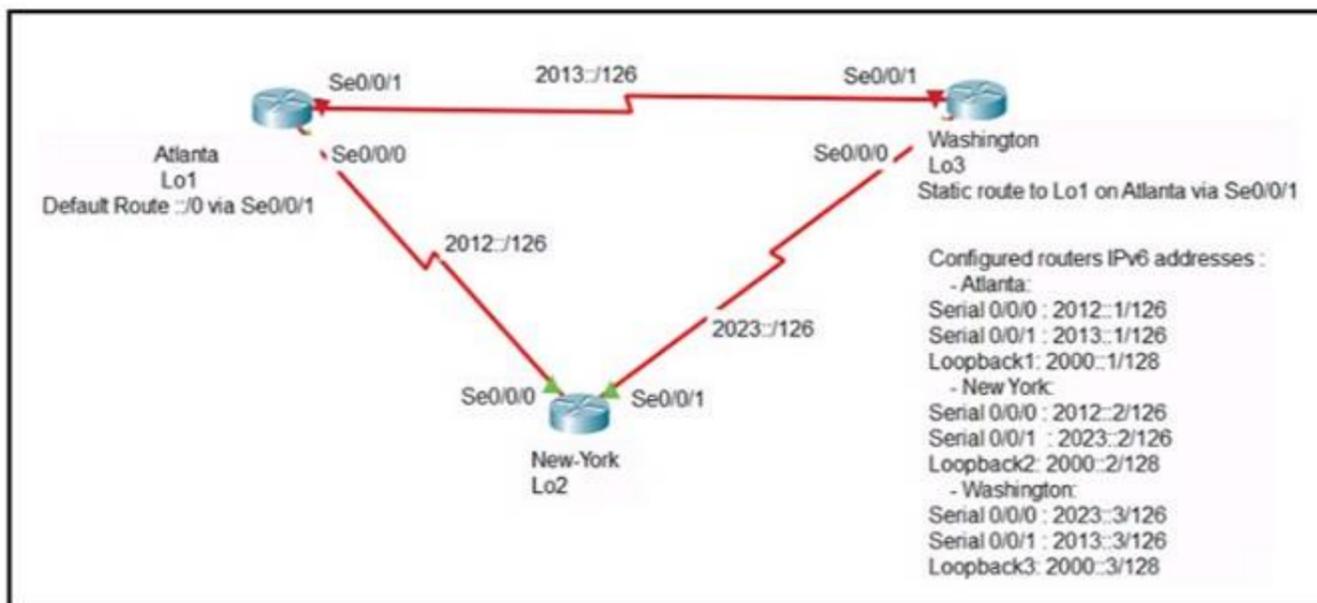
- A. disabling TPC so that access points can negotiate signal levels with their attached wireless devices.
- B. setting the maximum data rate to 54 Mbps on the Cisco Wireless LAN Controller
- C. allocating nonoverlapping channels to access points that are in close physical proximity to one another
- D. configuring access points to provide clients with a maximum of 5 Mbps

Answer: C

NEW QUESTION 133

- (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 138

- (Topic 2)

Which function does an SNMP agent perform?

- A. it sends information about MIB variables in response to requests from the NMS
- B. it requests information from remote network nodes about catastrophic system events.
- C. it manages routing between Layer 3 devices in a network
- D. it coordinates user authentication between a network device and a TACACS+ or RADIUS server

Answer: A

NEW QUESTION 140

- (Topic 2)

What are two reasons for an engineer to configure a floating state route? (Choose two)

- A. to automatically route traffic on a secondary path when the primary path goes down
- B. to route traffic differently based on the source IP of the packet
- C. to enable fallback static routing when the dynamic routing protocol fails
- D. to support load balancing via static routing
- E. to control the return path of traffic that is sent from the router

Answer: AC

NEW QUESTION 144

- (Topic 2)

Refer to me exhibit.

```
Router1#show ip route
Gateway of last resort is not set
 209.165.200.0/27 is subnetted, 1 subnets
 B    209.165.200.224 [20/0] via 10.10.12.2, 00:09:57
 10.0.0.0/8 is variably subnetted, 4 subnets, 3 masks
 C    10.10.10.0/28 is directly connected, GigabitEthernet0/0
 C    10.10.11.0/30 is directly connected, FastEthernet2/0
 O    10.10.13.0/24 [110/2] via 10.10.10.1, 00:08:34, GigabitEthernet0/0
 C    10.10.12.0/30 is directly connected, GigabitEthernet0/1
```

Which action is taken by the router when a packet is sourced from 10.10.10.2 and destined for 10.10.10.16?

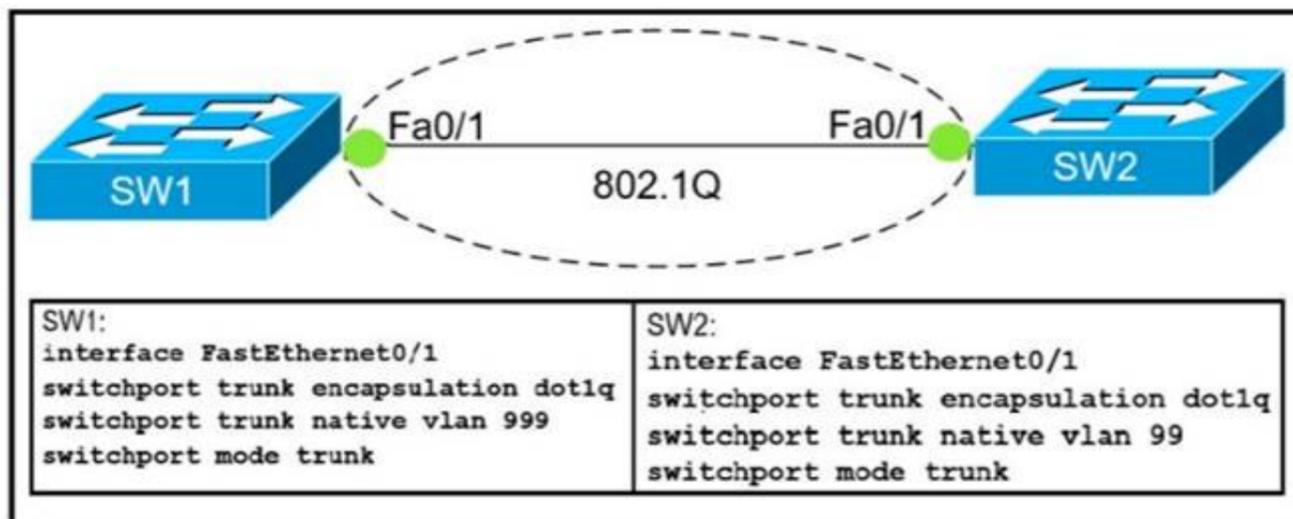
- A. It uses a route that is similar to the destination address
- B. It discards the packets.
- C. It floods packets to all learned next hops.
- D. It Queues the packets waiting for the route to be learned.

Answer: A

NEW QUESTION 149

- (Topic 2)

Refer to Exhibit.



Which action do the switches take on the trunk link?

- A. The trunk does not form and the ports go into an err-disabled status.
- B. The trunk forms but the mismatched native VLANs are merged into a single broadcast domain.
- C. The trunk does not form, but VLAN 99 and VLAN 999 are allowed to traverse the link.
- D. The trunk forms but VLAN 99 and VLAN 999 are in a shutdown state.

Answer: B

Explanation:

The trunk still forms with mismatched native VLANs and the traffic can actually flow between mismatched switches. But it is absolutely necessary that the native VLANs on both ends of a trunk link match; otherwise a native VLAN mismatch occurs, causing the two VLANs to effectively merge. For example with the above configuration, SW1 would send untagged frames for VLAN 999. SW2 receives them but would think they are for VLAN 99 so we can say these two VLANs are merged.

NEW QUESTION 151

- (Topic 2)

What is the primary function of a Layer 3 device?

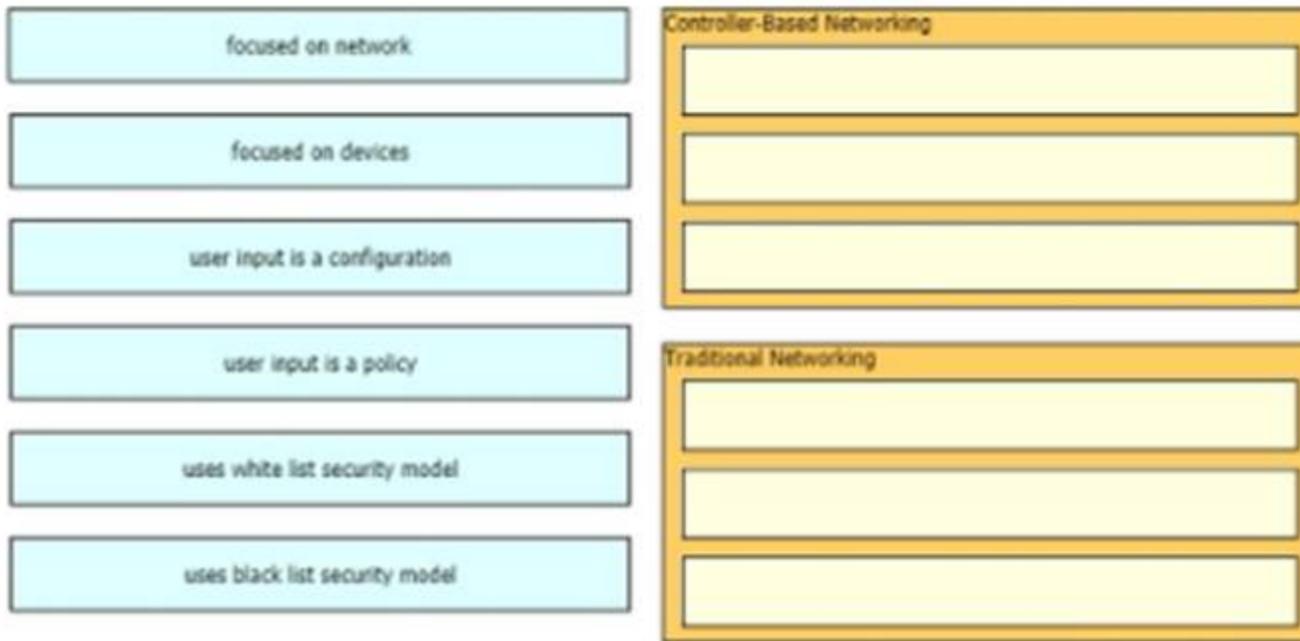
- A. to analyze traffic and drop unauthorized traffic from the Internet
- B. to transmit wireless traffic between hosts
- C. to pass traffic between different networks
- D. forward traffic within the same broadcast domain

Answer: C

NEW QUESTION 153

DRAG DROP - (Topic 2)

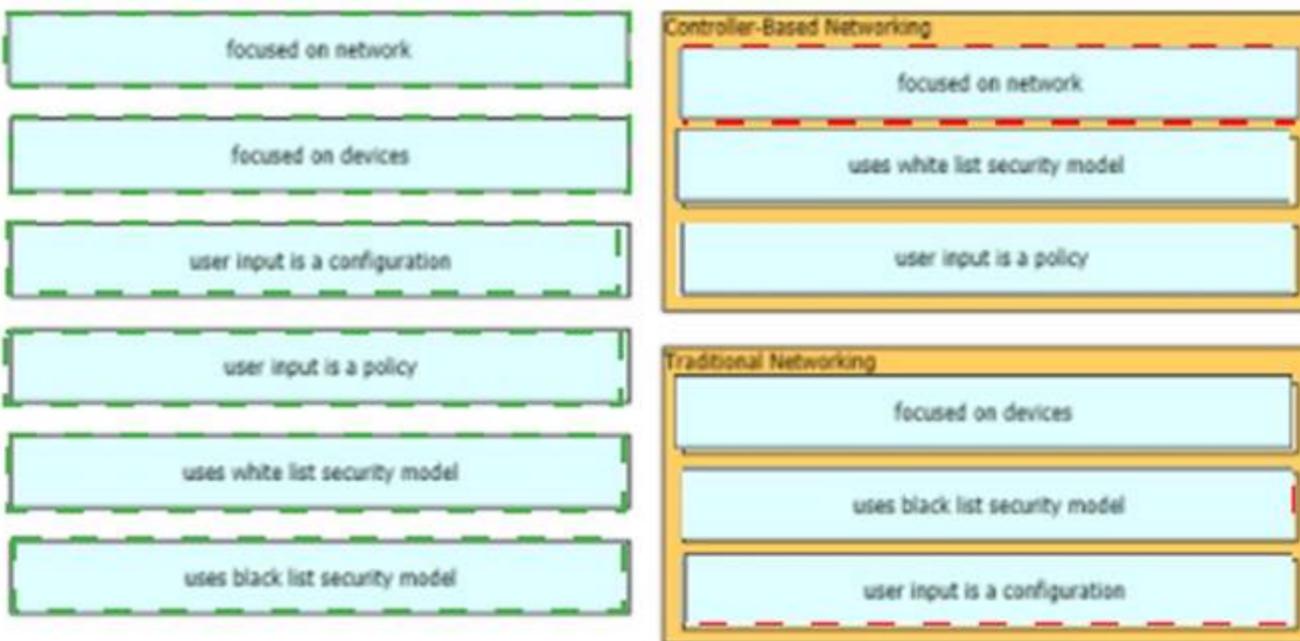
Drag and drop to the characteristics of networking from the left onto the correct networking types on the right.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 158

- (Topic 2)

What is a function of TFTP in network operations?

- A. transfers a backup configuration file from a server to a switch using a username and password
- B. transfers files between file systems on a router
- C. transfers a configuration files from a server to a router on a congested link
- D. transfers IOS images from a server to a router for firmware upgrades

Answer: D

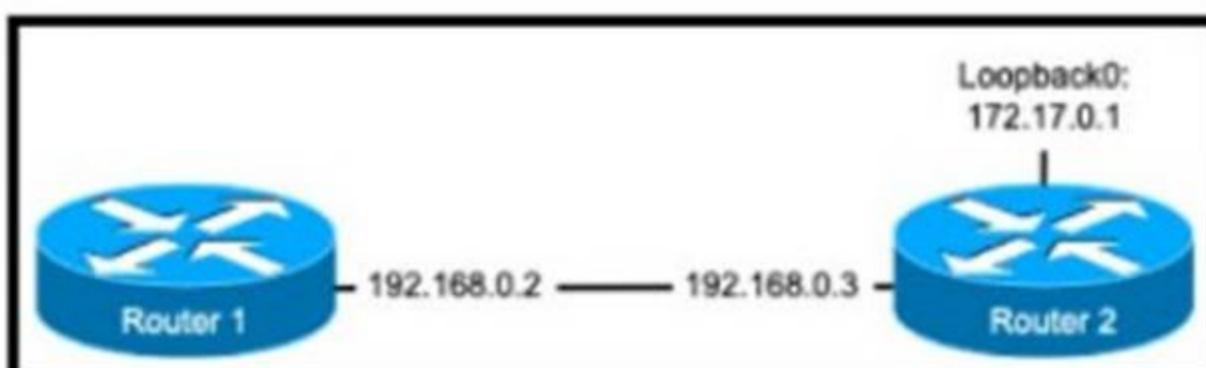
Explanation:

TFTP is mostly used (Firmware upgrade) whereby the admin have the IOS image on one device and uses TFTP to load the image to all other devices quickly.

NEW QUESTION 159

- (Topic 2)

Refer to the exhibit.



The ntp server 192.168.0.3 command has been configured on router 1 to make it an NTP client of router 2. Which command must be configured on router 2 so that it operates in server-only mode and relies only on its internal clock?

- A. Router2(config)#ntp passive
- B. Router2(config)#ntp server 172.17.0.1
- C. Router2(config)#ntp master 4
- D. Router2(config)#ntp server 192.168.0.2

Answer: B

Explanation:

- To use internal clock of this router, use any configured IP address in any interface of this router.

NEW QUESTION 162

- (Topic 2)

Refer to the exhibit.

```
Switch(config)#hostname R1
R1(config)#interface FastEthernet0/1
R1(config-if)#no switchport
R1(config-if)#ip address 10.100.20.42 255.255.255.0
R1(config-if)#line vty 0 4
R1(config-line)#login
```

An engineer booted a new switch and applied this configuration via the console port. Which additional configuration must be applied to allow administrators to authenticate directly to enable privilege mode via Telnet using a local username and password?

- R1(config)#username admin privilege 15 secret p@ss1234
R1(config-if)#line vty 0 4
R1(config-line)#login local
- R1(config)#username admin secret p@ss1234
R1(config-if)#line vty 0 4
R1(config-line)#login local
R1(config)#enable secret p@ss1234
- R1(config)#username admin
R1(config-if)#line vty 0 4
R1(config-line)#password p@ss1234
R1(config-line)#transport input telnet
- R1(config)#username admin
R1(config-if)#line vty 0 4
R1(config-line)#password p@ss1234

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

Answer: A

NEW QUESTION 163

- (Topic 2)

An engineer must establish a trunk link between two switches. The neighboring switch is set to trunk or desirable mode. What action should be taken?

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

Answer: C

NEW QUESTION 165

DRAG DROP - (Topic 2)

Refer to the exhibit.

```
C:\>ipconfig/all

Windows IP Configuration

Host Name . . . . . : Inspiron15
Primary Dns Suffix . . . . . :
Node Type . . . . . : Mixed
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No

Wireless LAN adapter Local Area Connection* 12:

Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . . . . . :
Description . . . . . : Microsoft Wi-Fi Direct Virtual Adapter
Physical Address. . . . . : 1A-76-3F-7C-57-DF
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . . : Yes

Wireless LAN adapter Wi-Fi:

Connection-specific DNS Suffix . . . . . :
Description . . . . . : Dell Wireless 1703 802.11b/g/n (2.4GHz)
Physical Address. . . . . : B8-76-3F-7C-57-DF
DHCP Enabled. . . . . : No
Autoconfiguration Enabled . . . . . : Yes
Link-local IPv6 Address . . . . . : fe80::e09f:9839:6e86:f755%12(Preferred)
IPv4 Address. . . . . : 192.168.1.20(Preferred)
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 192.168.1.1
DHCPv6 IAID . . . . . : 263747135
DHCPv6 Client DUID. . . . . : 00-01-00-01-18-E6-32-43-B8-76-3F-7C-57-DF

NetBIOS over Tcpip. . . . . : Enabled
```

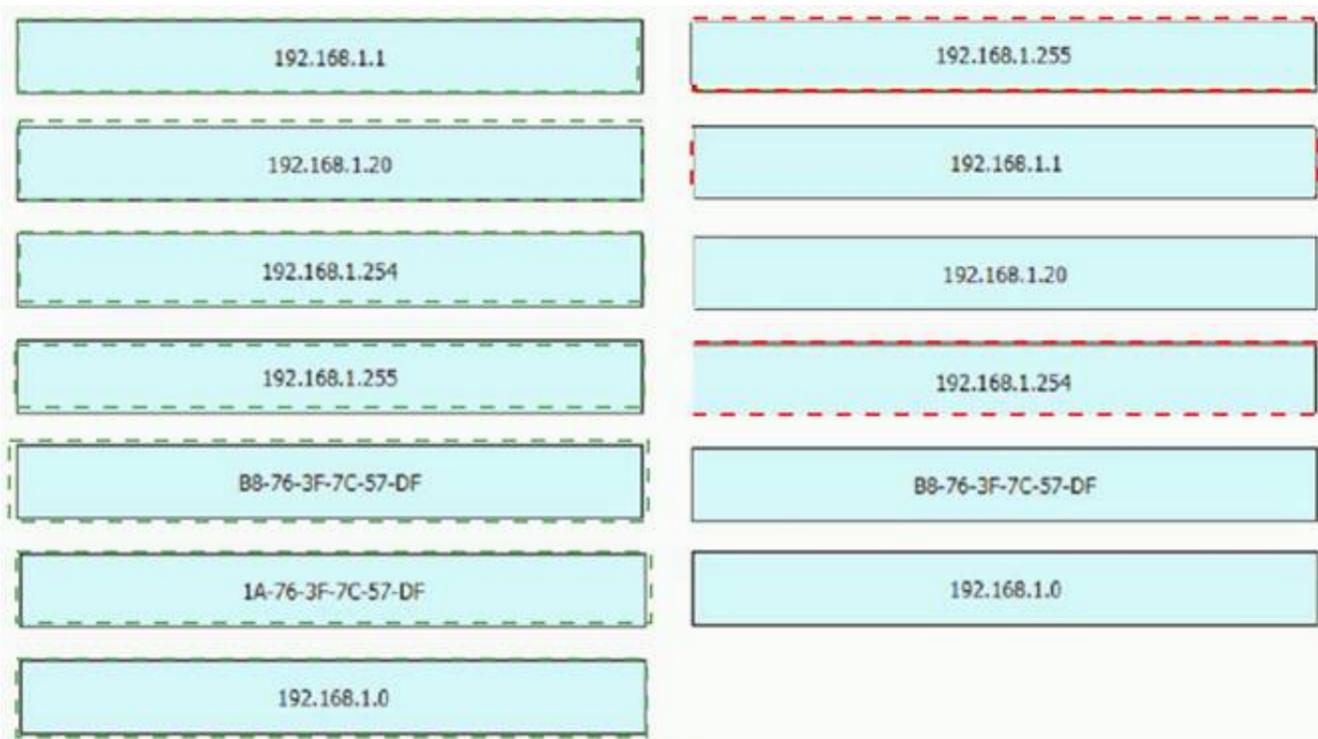
An engineer is required to verify that the network parameters are valid for the users wireless LAN connectivity on a /24 subnet. Drag and drop the values from the left onto the network parameters on the right. Not all values are used.

192.168.1.1	broadcast address
192.168.1.20	default gateway
192.168.1.254	host IP address
192.168.1.255	last assignable IP address in the subnet
B8-76-3F-7C-57-DF	MAC address
1A-76-3F-7C-57-DF	network address
192.168.1.0	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 169

- (Topic 2)

An office has 8 floors with approximately 30-40 users per floor. What command must be configured on the router Switched Virtual Interface to use address space efficiently?

- A. ip address 192.168.0.0 255.255.0.0
- B. ip address 192.168.0.0 255.255.254.0
- C. ip address 192.168.0.0 255.255.255.128
- D. ip address 192.168.0.0 255.255.255.224

Answer: B

NEW QUESTION 172

- (Topic 2)

Refer to the exhibit.

```
R2#show ip route
C    192.168.1.0/26 is directly connected, FastEthernet0/1
```

Which two prefixes are included in this routing table entry? (Choose two.)

- A. 192.168.1.17
- B. 192.168.1.61
- C. 192.168.1.64
- D. 192.168.1.127
- E. 192.168.1.254

Answer: BC

NEW QUESTION 173

- (Topic 2)

What prevents a workstation from receiving a DHCP address?

- A. DTP
- B. STP
- C. VTP
- D. 802.10

Answer: B

NEW QUESTION 176

- (Topic 2)

What are two benefits of network automation? (Choose two)

- A. reduced operational costs
- B. reduced hardware footprint
- C. faster changes with more reliable results
- D. fewer network failures
- E. increased network security

Answer: AC

NEW QUESTION 181

- (Topic 2)

Refer to the exhibit.

```
ip arp inspection vlan 5-10
interface fastethernet 0/1
switchport mode access
switchport access vlan 5
```

What is the effect of this configuration?

- A. All ARP packets are dropped by the switch
- B. Egress traffic is passed only if the destination is a DHCP server.
- C. All ingress and egress traffic is dropped because the interface is untrusted
- D. The switch discard all ingress ARP traffic with invalid MAC-to-IP address bindings.

Answer: D

NEW QUESTION 184

- (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

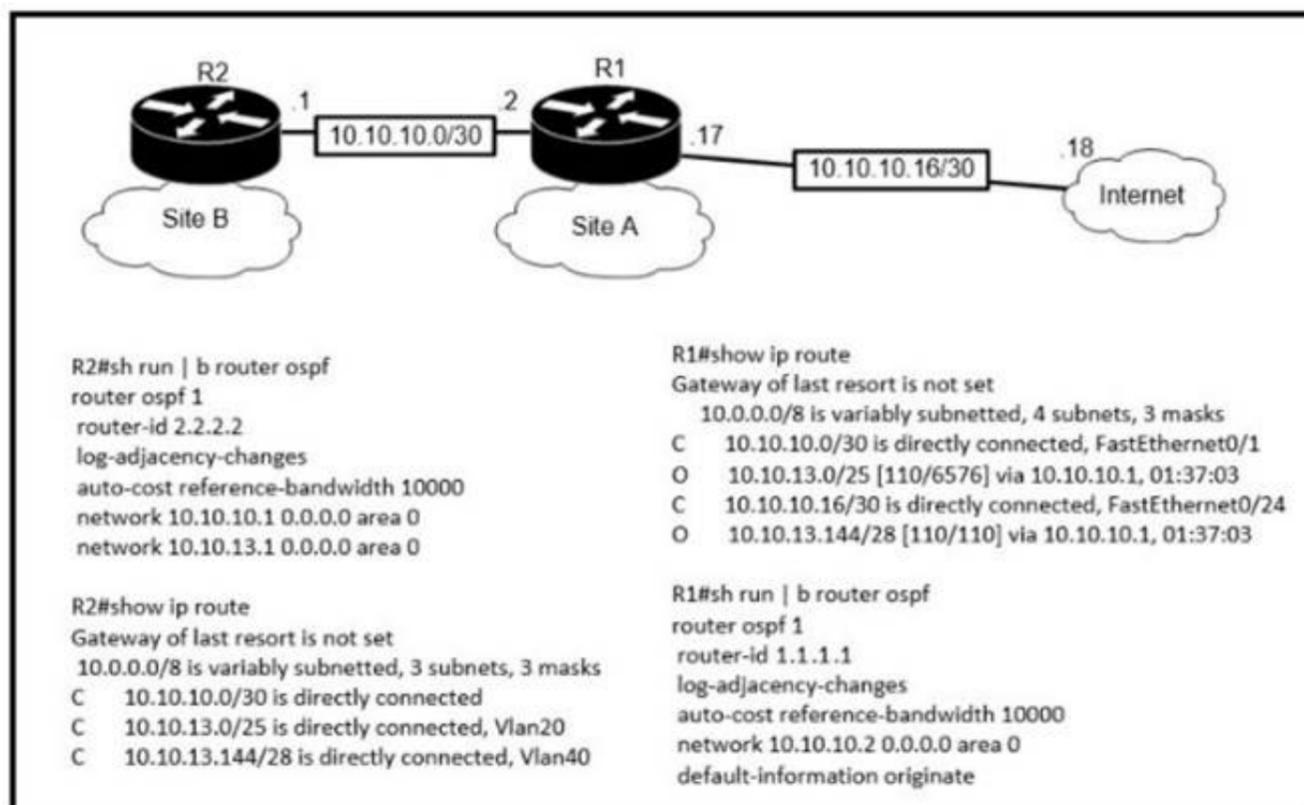
Explanation:

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 189

- (Topic 2)

Refer to the exhibit.



The default-information originate command is configured under the R1 OSPF configuration After testing workstations on VLAN 20 at Site B cannot reach a DNS server on the Internet Which action corrects the configuration issue?

- A. Add the default-information originate command onR2
- B. Configure the ip route 0.0.0.0 0.0.0.0 10.10.10.18 command on R1
- C. Configure the ip route 0.0.0.0 0.0.0.0 10.10.10.2 command on R2
- D. Add the always keyword to the default-information originate command on R1

Answer: B

NEW QUESTION 191

- (Topic 2)

Which configuration management mechanism uses TCP port 22 by default when communicating with managed nodes?

- A. Ansible
- B. Python
- C. Puppet
- D. Chef

Answer: A

NEW QUESTION 195

- (Topic 2)

What is the effect when loopback interfaces and the configured router ID are absent during the OSPF Process configuration?

- A. No router ID is set, and the OSPF protocol does not run.
- B. The highest up/up physical interface IP address is selected as the router ID.
- C. The lowest IP address is incremented by 1 and selected as the router ID.
- D. The router ID 0.0.0.0 is selected and placed in the OSPF process.

Answer: B

NEW QUESTION 197

- (Topic 2)

Refer to the exhibit.

```
Designated Router (ID) 10.11.11.11, Interface address 10.10.10.1
Backup Designated router (ID) 10.3.3.3, Interface address 10.10.10.3
Timer intervals configured, Hello 10, Dead 40, Wait 40, Retransmit 5
oob-resync timeout 40
Hello due in 00:00:08
Supports Link-local Signaling (LLS)
Cisco NSF helper support enabled
IETF NSF helper support enabled
Index 1/1/1, flood queue length 0
Next 0x0(0)/0x0(0)/0x0(0)
Last flood scan length is 1, maximum is 6
Last flood scan time is 0 msec, maximum is 1 msec
Neighbor Count is 3, Adjacent neighbor count is 3
Adjacent with neighbor 10.1.1.4
Adjacent with neighbor 10.2.2.2
Adjacent with neighbor 10.3.3.3 (Backup Designated Router)
Suppress hello for 0 neighbor(s)
```

The show ip ospf interface command has been executed on R1 How is OSPF configured?

- A. The interface is not participating in OSPF
- B. A point-to-point network type is configured
- C. The default Hello and Dead timers are in use
- D. There are six OSPF neighbors on this interface

Answer: C

Explanation:

<https://www.cisco.com/c/en/us/support/docs/ip/open-shortest-path-first-ospf/13689-17.html>

NEW QUESTION 201

- (Topic 2)

R1 has learned route 10.10.10.0/24 via numerous routing protocols. Which route is installed?

- A. route with the lowest cost
- B. route with the next hop that has the highest IP
- C. route with the shortest prefix length
- D. route with the lowest administrative distance

Answer: D

NEW QUESTION 204

- (Topic 2)

What does an SDN controller use as a communication protocol to relay forwarding changes to a southbound API?

- A. OpenFlow
- B. Java
- C. REST
- D. XML

Answer: A

NEW QUESTION 205

- (Topic 2)

Which condition must be met before an NMS handles an SNMP trap from an agent?

- A. The NMS software must be loaded with the MIB associated with the trap.
- B. The NMS must be configured on the same router as the SNMP agent
- C. The NMS must receive a trap and an inform message from the SNMP agent within a configured interval
- D. The NMS must receive the same trap from two different SNMP agents to verify that it is reliable.

Answer: A

NEW QUESTION 207

- (Topic 2)

An implementer is preparing hardware for virtualization to create virtual machines on a host. What is needed to provide communication between hardware and virtual machines?

- A. hypervisor
- B. router
- C. straight cable
- D. switch

Answer: A

NEW QUESTION 211

- (Topic 2)

Which mode must be set for APs to communicate to a Wireless LAN Controller using the Control and Provisioning of Wireless Access Points (CAPWAP) protocol?

- A. bridge
- B. route
- C. autonomous
- D. lightweight

Answer: D

NEW QUESTION 216

- (Topic 2)

Where does a switch maintain DHCP snooping information?

- A. in the MAC address table
- B. in the CAM table
- C. in the binding database
- D. in the frame forwarding database

Answer: C

NEW QUESTION 218

- (Topic 2)

which IPv6 address block forwards packets to a multicast address rather than a unicast address?

- A. 2000::/3
- B. FC00::/7
- C. FE80::/10
- D. FF00::/12

Answer: D

NEW QUESTION 222

- (Topic 2)

Which command must be entered when a device is configured as an NTP server?

- A. ntp authenticate
- B. ntp server
- C. ntp peer
- D. ntp master

Answer: D

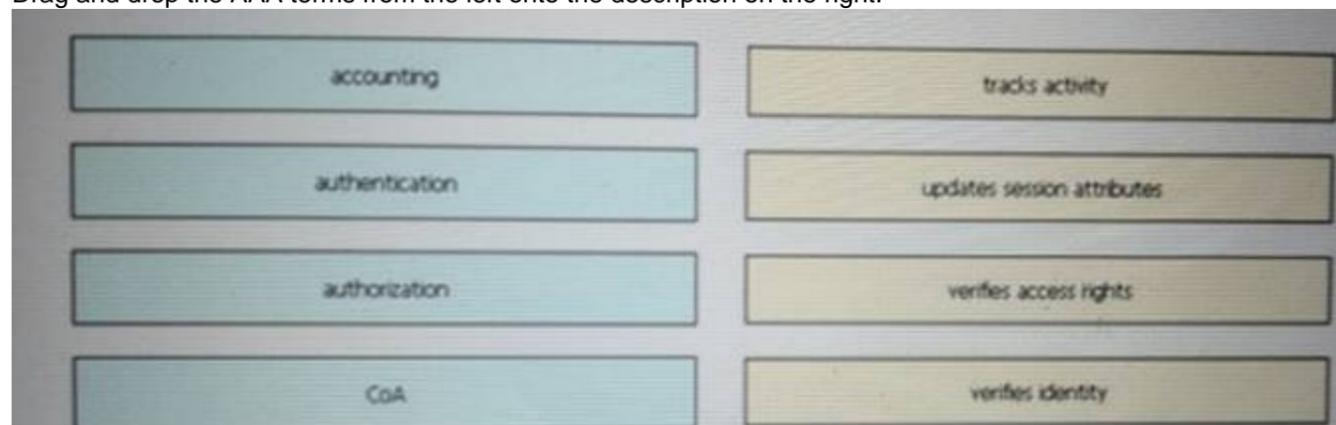
Explanation:

To configure a Cisco device as an Authoritative NTP Server, use the ntp master [stratum] command. To configure a Cisco device as a NTP client, use the command ntp server <IP address>. For example: Router(config)#ntp server 192.168.1.1. This command will instruct the router to query 192.168.1.1 for the time.

NEW QUESTION 223

DRAG DROP - (Topic 2)

Drag and drop the AAA terms from the left onto the description on the right.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

1-1, 2-4, 3-3, 4-2

NEW QUESTION 228

- (Topic 2)

With REST API, which standard HTTP header tells a server which media type is expected by the client?

- A. Accept-Encoding: gzi
- B. deflate
- C. Accept-Patch: text/example; charset=utf-8
- D. Content-Type: application/json; charset=utf-8
- E. Accept: application/json

Answer: D

Explanation:

Accept header is a way for a client to specify the media type of the response content it is expecting and Content-type is a way to specify the media type of request being sent from the client to the server.

<http://www.java-allandsundry.com/2012/08/accept-header-vs-content-type-header.html#:~:text=Accept%20and%20Content%2Dtype%20are,the%20client%20to%20t he%20server>

NEW QUESTION 230

- (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 233

- (Topic 2)

How does the dynamically-learned MAC address feature function?

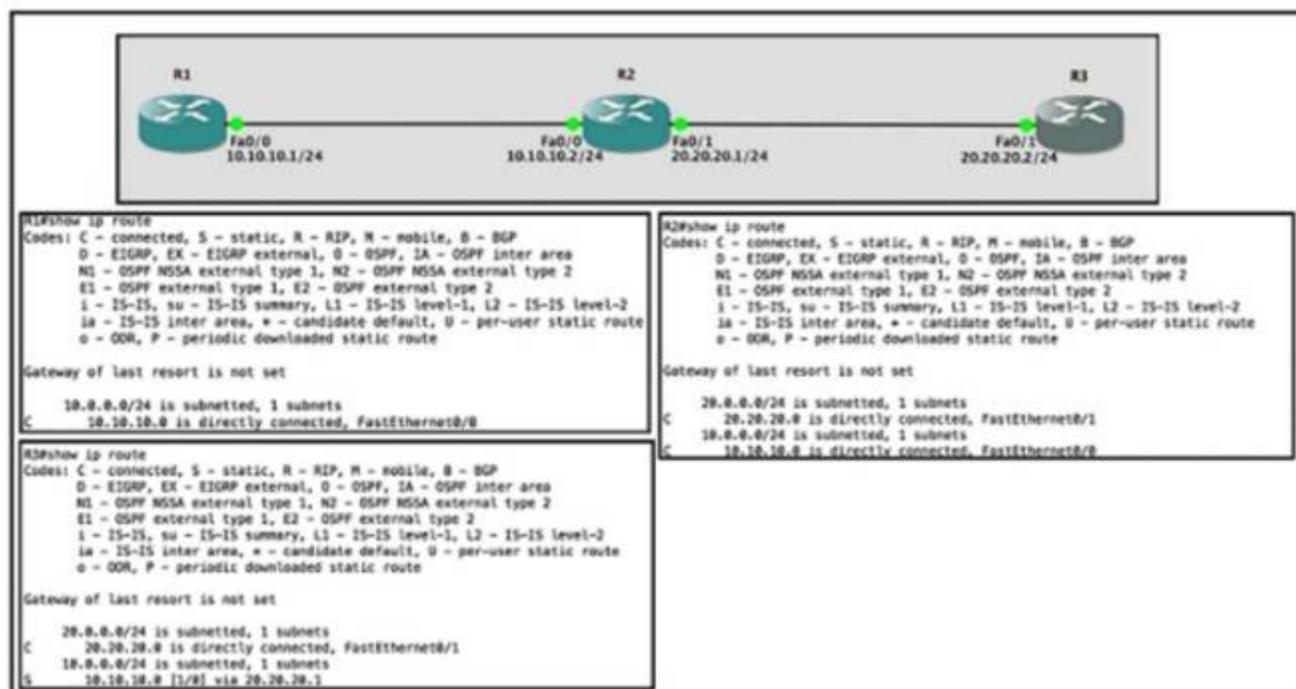
- A. The CAM table is empty until ingress traffic arrives at each port
- B. Switches dynamically learn MAC addresses of each connecting CAM table.
- C. The ports are restricted and learn up to a maximum of 10 dynamically-learned addresses
- D. It requires a minimum number of secure MAC addresses to be filled dynamically

Answer: A

NEW QUESTION 234

- (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?

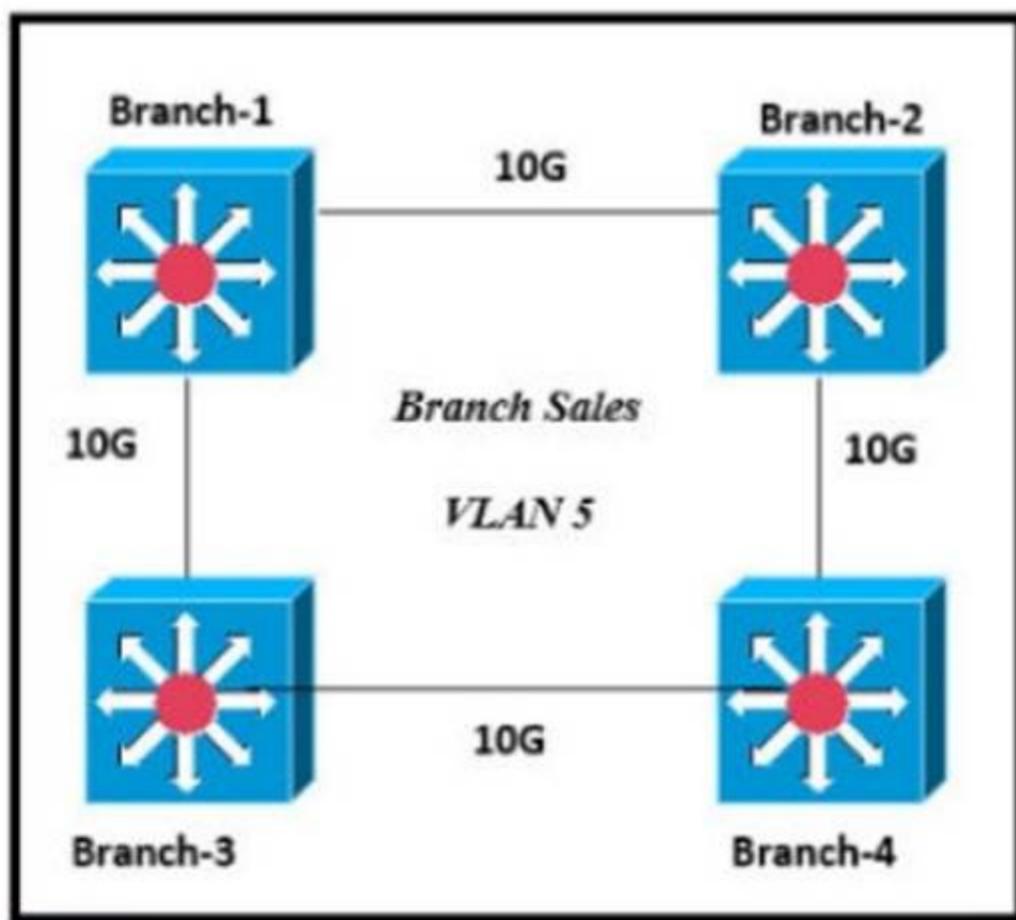
- A. set the default network as 20.20.20.0/24
- B. set the default gateway as 20.20.20.2
- C. configure a static route with Fa0/1 as the egress interface to reach the 20.20.20.0/24 network
- D. configure a static route with 10.10.10.2 as the next hop to reach the 20.20.20.0/24 network

Answer: D

NEW QUESTION 238

- (Topic 2)

Refer to the exhibit.



Only four switches are participating in the VLAN spanning-tree process.

Branch-1 priority 614440

Branch-2: priority 39082416

Branch-3: priority 0 Branch-4: root primary

Which switch becomes the permanent root bridge for VLAN 5?

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

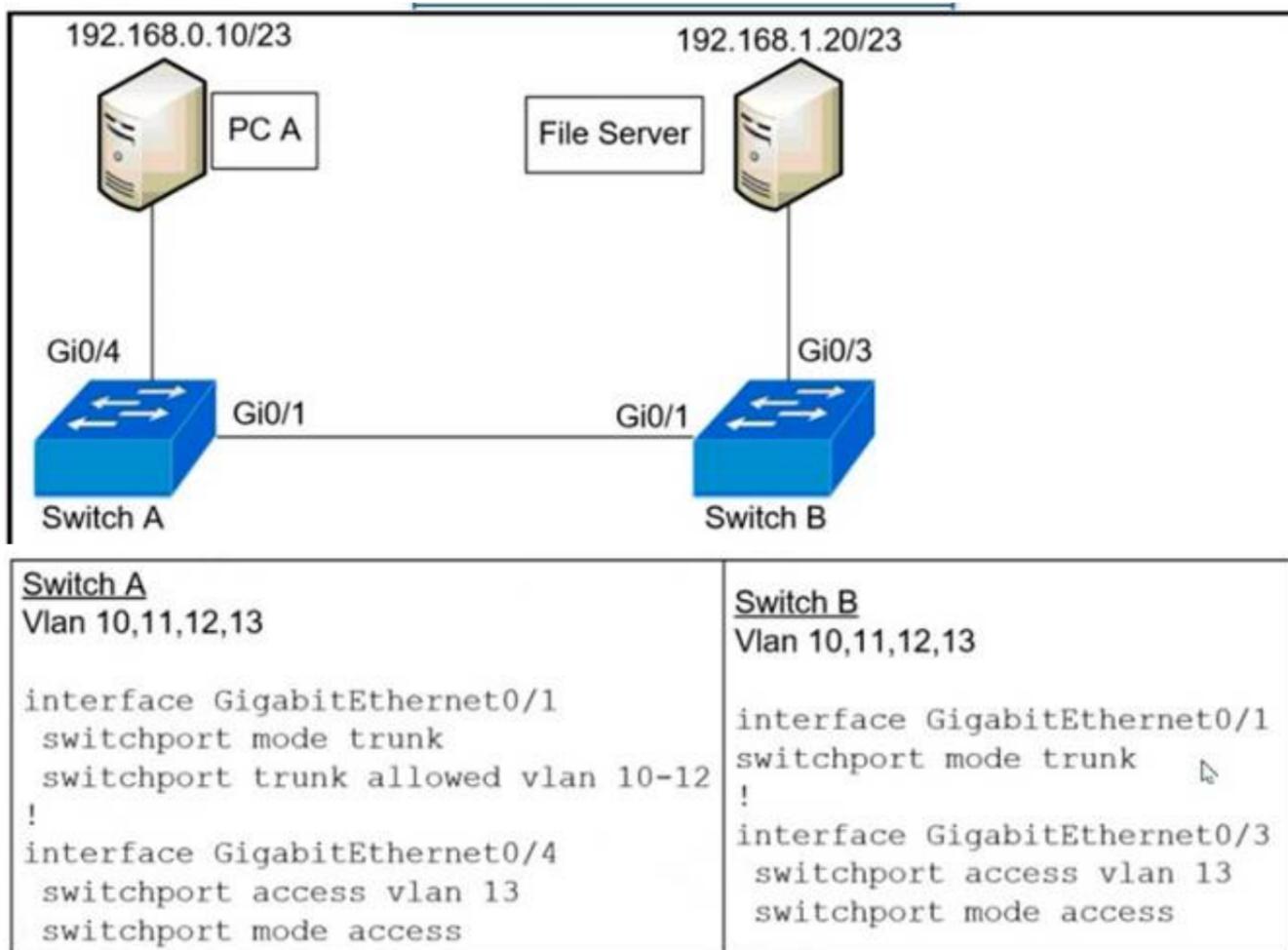
Answer: C

Explanation:

Dynamic ARP inspection is an ingress security feature; it does not perform any egress checking.

NEW QUESTION 240

- (Topic 2)
Refer to the exhibit.



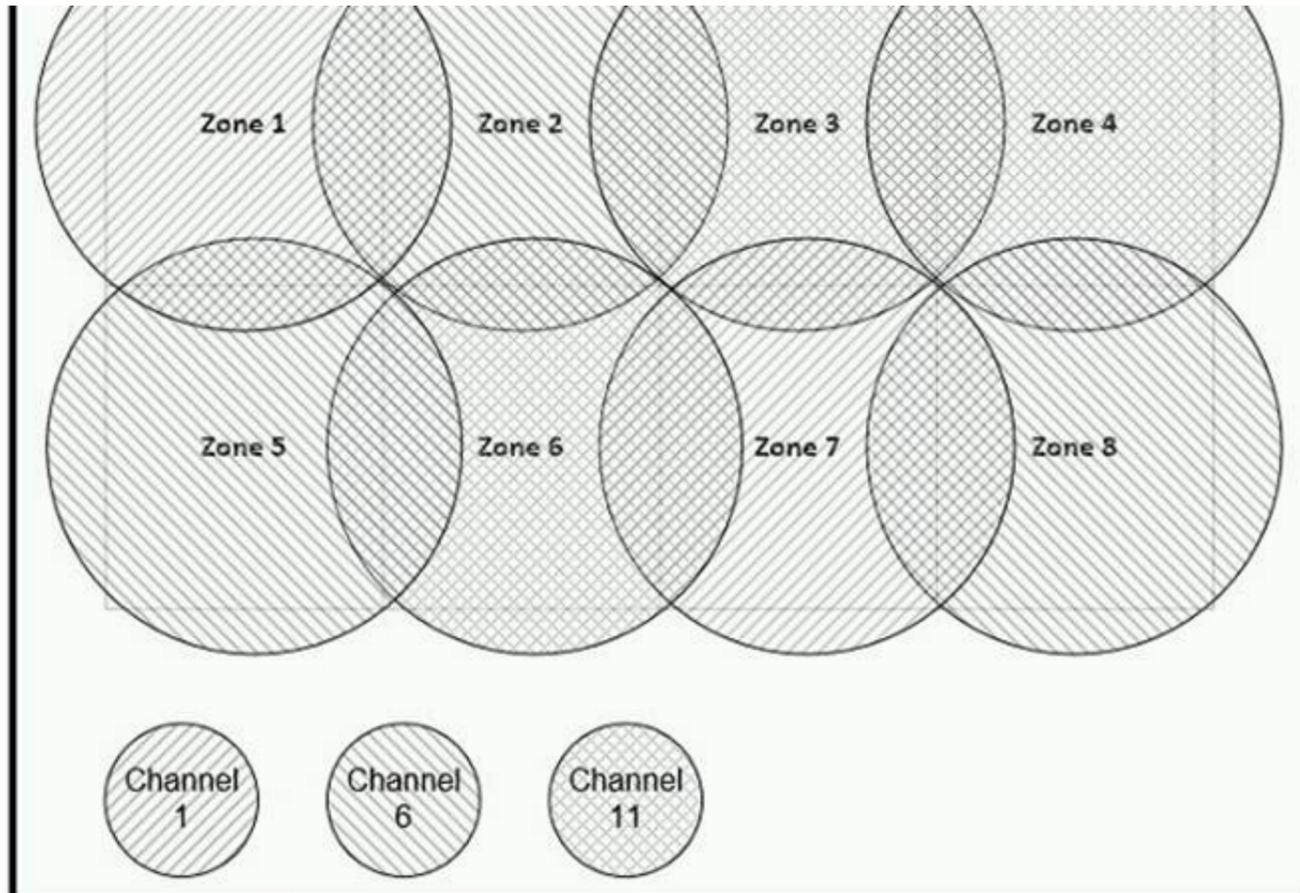
A network administrator assumes a task to complete the connectivity between PC A and the File Server. Switch A and Switch B have been partially configured with VLAN 10, 11, 12, and 13. What is the next step in the configuration?

- A. Add PC A to VLAN 10 and the File Server to VLAN 11 for VLAN segmentation
- B. Add VLAN 13 to the trunk links on Switch A and Switch B for VLAN propagation
- C. Add a router on a stick between Switch A and Switch B allowing for Inter-VLAN routing.
- D. Add PC A to the same subnet as the File Server allowing for intra-VLAN communication.

Answer: B

NEW QUESTION 241

- (Topic 2)
Refer to the exhibit.



Between which zones do wireless users expect to experience intermittent connectivity?

- A. between zones 1 and 2
- B. between zones 2 and 5
- C. between zones 3 and 4
- D. between zones 3 and 6

Answer: D

NEW QUESTION 246

- (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 247

- (Topic 2)

Which technology must be implemented to configure network device monitoring with the highest security?

- A. IP SLA
- B. syslog
- C. NetFlow
- D. SNMPv3

Answer: C

NEW QUESTION 250

DRAG DROP - (Topic 2)

Drag and drop the lightweight access point operation modes from the left onto the descriptions on the right

bridge mode	allows the access point to communicate with the WLC over a WAN link
local mode	allows for packet captures of wireless traffic
monitor mode	rogue detector mode
Flexconnect mode	preferred for connecting access points in a mesh environment
	receive only mode which acts as a dedicated sensor for RFID and IDS
sniffer mode	transmits normally on one channel and monitors other channels for noise and interference

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

bridge mode	local mode
local mode	sniffer mode
monitor mode	rogue detector mode
Flexconnect mode	bridge mode
	Flexconnect mode
sniffer mode	monitor mode

NEW QUESTION 253

- (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 254

- (Topic 2)

Where is the interface between the control plane and data plane within the software- defined architecture?

- A. control layer and the infrastructure layer
- B. application layer and the infrastructure layer
- C. application layer and the management layer
- D. control layer and the application layer

Answer: A

NEW QUESTION 255

- (Topic 2)

How does a Cisco Unified Wireless network respond to Wi-Fi channel overlap?

- A. It alternates automatically between 2.4 GHz and 5 GHz on adjacent access points
- B. It allows the administrator to assign channels on a per-device or per-interface basis.
- C. It segregates devices from different manufacturers onto different channels.
- D. It analyzes client load and background noise and dynamically assigns a channel.

Answer: A

NEW QUESTION 259

- (Topic 2)

What is a function of a Layer 3 switch?

- A. move frames between endpoints limited to IP addresses
- B. transmit broadcast traffic when operating in Layer 3 mode exclusively
- C. forward Ethernet frames between VLANs using only MAC addresses
- D. flood broadcast traffic within a VLAN

Answer: A

NEW QUESTION 264

- (Topic 2)

What is a difference between RADIUS and TACACS+?

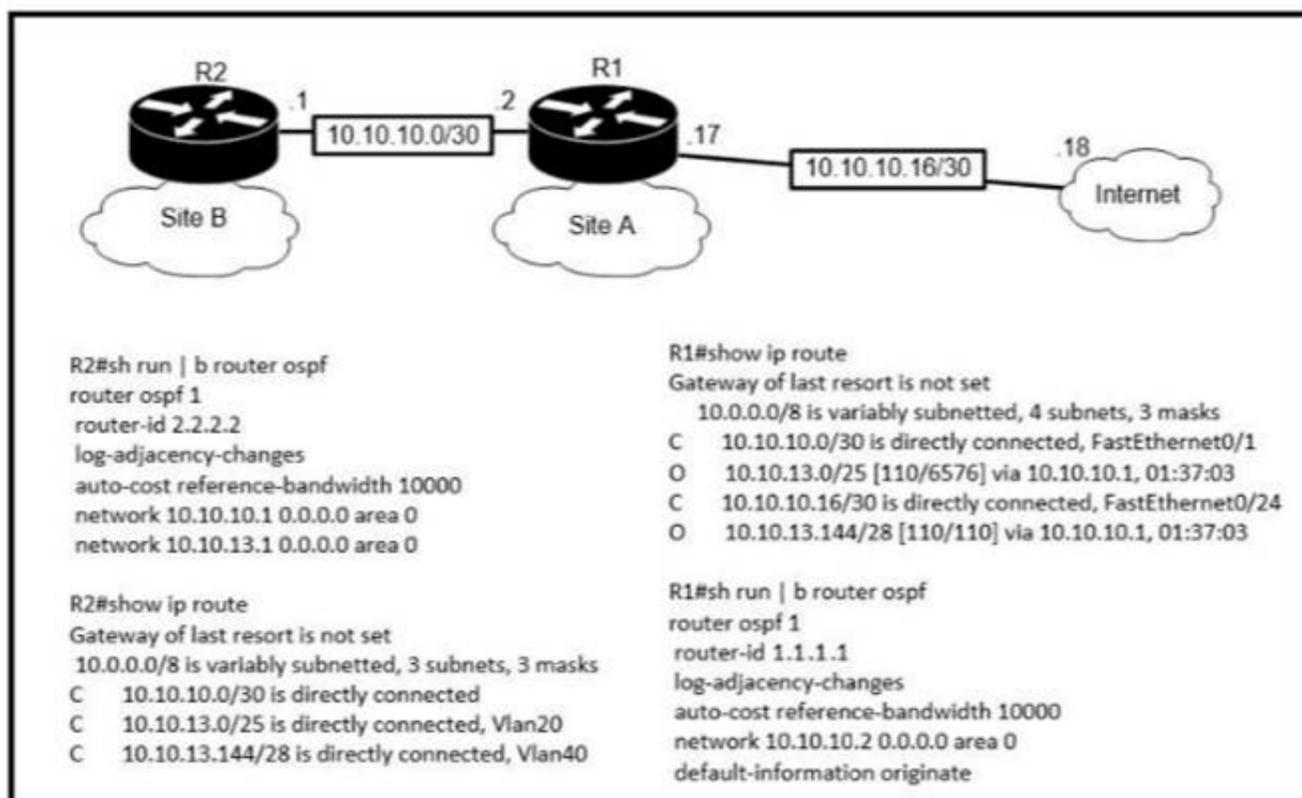
- A. RADIUS is most appropriate for dial authentication, but TACACS+ can be used for multiple types of authentication
- B. TACACS+ encrypts only password information and RADIUS encrypts the entire payload
- C. TACACS+ separates authentication and authorization, and RADIUS merges them
- D. RADIUS logs all commands that are entered by the administrator, but TACACS+ logs only start, stop, and interim commands

Answer: C

NEW QUESTION 268

- (Topic 2)

Refer to the exhibit.



An engineer is bringing up a new circuit to the MPLS provider on the Gi0/1 interface of Router1. The new circuit uses eBGP and teams the route to VLAN25 from the BGP path. What is the expected behavior for the traffic flow for route 10.10.13.0/25?

- A. Traffic to 10.10.13.0/25 is load balanced out of multiple interfaces
- B. Route 10.10.13.0/25 is updated in the routing table as being learned from interface Gi0/1.
- C. Traffic to 10.10.13.0/25 is asymmetrical
- D. Route 10.10.13.0/25 learned via the Gi0/0 interface remains in the routing table

Answer: D

NEW QUESTION 273

- (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 275

- (Topic 2)

Which QoS tool is used to optimize voice traffic on a network that is primarily intended for data traffic?

- A. FIFO
- B. WFQ
- C. PQ
- D. WRED

Answer: C

NEW QUESTION 276

- (Topic 2)

What are two recommendations for protecting network ports from being exploited when located in an office space outside of an IT closet? (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 278

- (Topic 2)

Which result occurs when PortFast is enabled on an interface that is connected to another switch?

- A. Spanning tree may fail to detect a switching loop in the network that causes broadcast storms
- B. VTP is allowed to propagate VLAN configuration information from switch to switch automatically.
- C. Root port choice and spanning tree recalculation are accelerated when a switch link goes down
- D. After spanning tree converges PortFast shuts down any port that receives BPDUs.

Answer: A

Explanation:

Enabling the PortFast feature causes a switch or a trunk port to enter the STP forwarding-state immediately or upon a linkup event, thus bypassing the listening and learning states.

Note: To enable portfast on a trunk port you need the trunk keyword "spanning-tree portfast trunk"

NEW QUESTION 280

- (Topic 2)

Which IPv6 address type provides communication between subnets and is unable to route on the Internet?

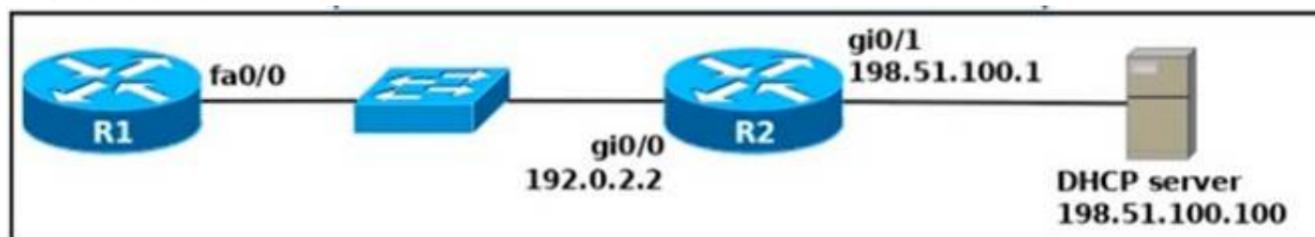
- A. global unicast
- B. unique local
- C. link-local
- D. multicast

Answer: B

NEW QUESTION 282

- (Topic 2)

Refer to the exhibit.



An engineer deploys a topology in which R1 obtains its IP configuration from DHCP. If the switch and DHCP server configurations are complete and correct. Which two sets of commands must be configured on R1 and R2 to complete the task? (Choose two)

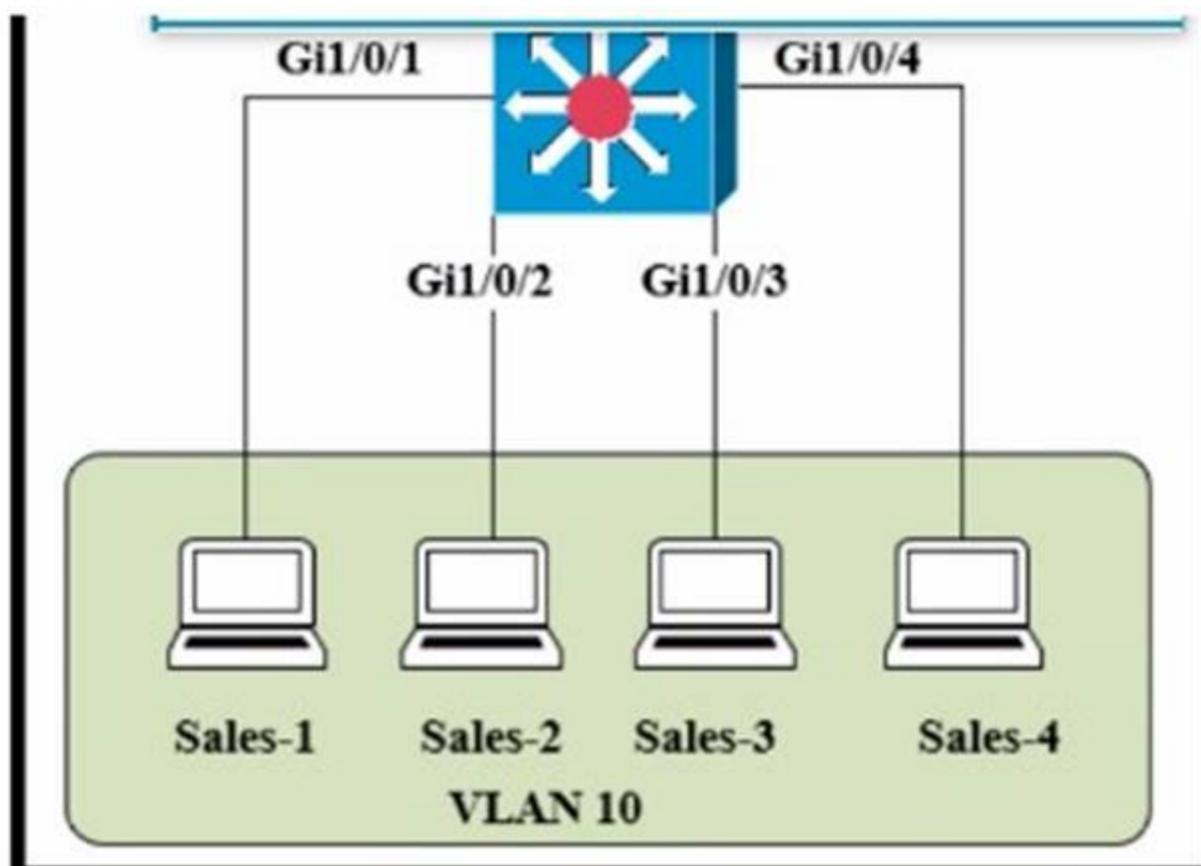
- A. R1(config)# interface fa0/0 R1(config-if)# ip helper-address 198.51.100.100
- B. R2(config)# interface gi0/0 R2(config-if)# ip helper-address 198.51.100.100
- C. R1(config)# interface fa0/0 R1(config-if)# ip address dhcp R1(config-if)# no shutdown
- D. R2(config)# interface gi0/0 R2(config-if)# ip address dhcp
- E. R1(config)# interface fa0/0 R1(config-if)# ip helper-address 192.0.2.2

Answer: BC

NEW QUESTION 283

- (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 285

- (Topic 1)

Which access layer threat-mitigation technique provides security based on identity?

- A. Dynamic ARP Inspection
- B. using a non-default native VLAN
- C. 802.1x
- D. DHCP snooping

Answer: C

NEW QUESTION 286

- (Topic 1)

When using Rapid PVST+, which command guarantees the switch is always the root bridge for VLAN 200?

- A. spanning-tree vlan 200 priority 614440
- B. spanning-tree vlan 200 priority 38572422
- C. spanning-tree vlan 200 priority 0
- D. spanning-tree vlan 200 root primary

Answer: C

NEW QUESTION 287

- (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 288

- (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?

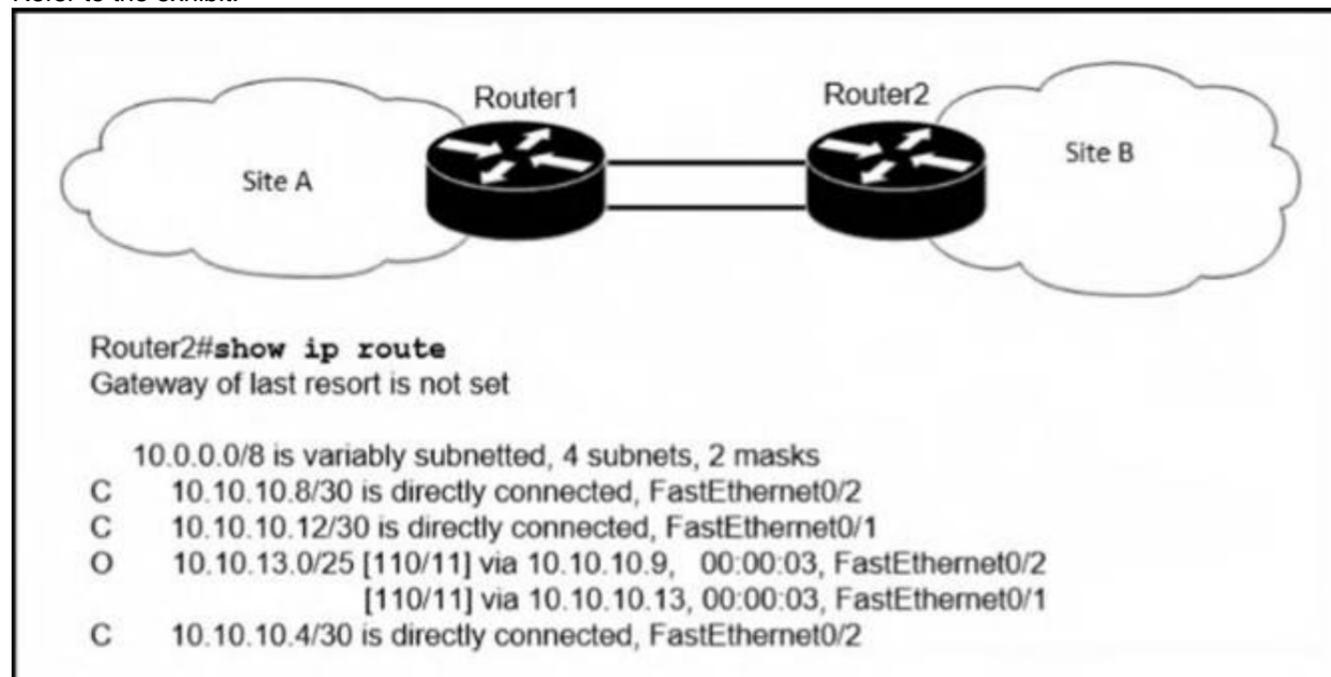
- A. The link is in a down state.
- B. The link is in an error disables state
- C. The link is becomes an access port.
- D. The link becomes a trunk port.

Answer: D

NEW QUESTION 290

- (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 294

- (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 296

- (Topic 1)

Which state does the switch port move to when PortFast is enabled?

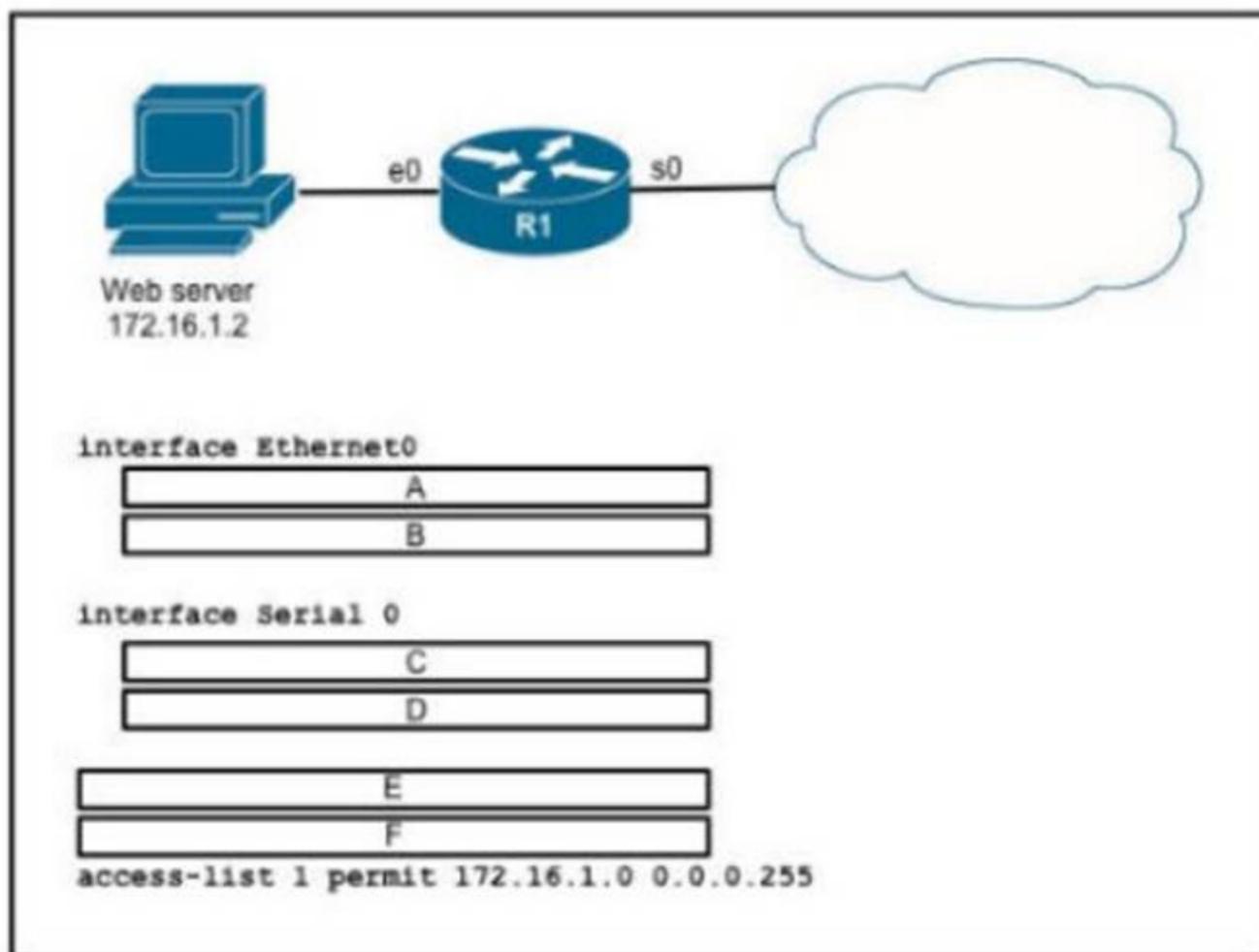
- A. forwarding
- B. listening
- C. blocking
- D. learning

Answer: A

NEW QUESTION 298

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 299

- (Topic 1)

Which command automatically generates an IPv6 address from a specified IPv6 prefix and MAC address of an interface?

- A. ipv6 address dhcp
- B. ipv6 address 2001:DB8:5:112::/64 eui-64
- C. ipv6 address autoconfig
- D. ipv6 address 2001:DB8:5:112::2/64 link-local

Answer: C

Explanation:

The "ipv6 address autoconfig" command causes the device to perform IPv6 stateless address autoconfiguration to discover prefixes on the link and then to add the EUI-64 based addresses to the interface. Addresses are configured depending on the prefixes received in Router Advertisement (RA) messages. The device will listen for RA messages which are transmitted periodically from the router (DHCP Server). This RA message allows a host to create a global IPv6 address from: + Its interface identifier (EUI-64 address) + Link Prefix (obtained via RA) Note: Global address is the combination of Link Prefix and EUI-64 address

NEW QUESTION 303

- (Topic 1)

What are two roles of the Dynamic Host Configuration Protocol (DHCP)? (Choose two)

- A. The DHCP server offers the ability to exclude specific IP addresses from a pool of IP addresses
- B. The DHCP client can request up to four DNS server addresses
- C. The DHCP server assigns IP addresses without requiring the client to renew them
- D. The DHCP server leases client IP addresses dynamically.
- E. The DHCP client maintains a pool of IP addresses it can assign.

Answer: AD

NEW QUESTION 304

- (Topic 1)

Which statement identifies the functionality of virtual machines?

- A. Virtualized servers run most efficiently when they are physically connected to a switch that is separate from the hypervisor
- B. The hypervisor can virtualize physical components including CPU, memory, and storage
- C. Each hypervisor can support a single virtual machine and a single software switch
- D. The hypervisor communicates on Layer 3 without the need for additional resources

Answer: B

NEW QUESTION 306

- (Topic 1)

In QoS, which prioritization method is appropriate for interactive voice and video?

- A. expedited forwarding
- B. traffic policing
- C. round-robin scheduling
- D. low-latency queuing

Answer: D

NEW QUESTION 309

DRAG DROP - (Topic 1)

Drag and drop the IPv4 network subnets from the left onto the correct usable host ranges on the right

172.28.228.144/18	172.28.228.1 - 172.28.229.254
172.28.228.144/21	172.28.224.1 - 172.28.231.254
172.28.228.144/23	172.28.228.129 - 172.28.228.254
172.28.228.144/25	172.28.228.145 - 172.28.228.150
172.28.228.144/29	172.28.192.1 - 172.28.255.254

- A. Mastered
- B. Not Mastered

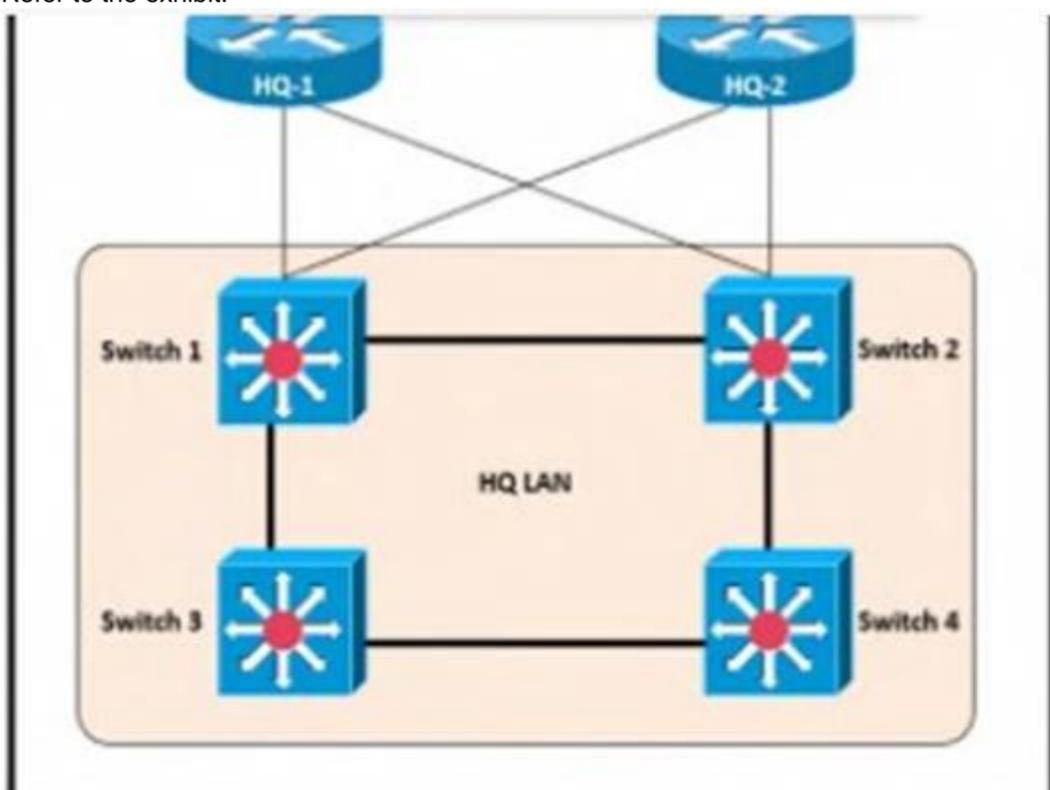
Answer: A

Explanation:



NEW QUESTION 314

- (Topic 1)
Refer to the exhibit.



After the election process what is the root bridge in the HQ LAN?

- Switch 1: 0C:E0:38:58:15:77
- Switch 2: 0C:0E:15:22:1A:61
- Switch 3: 0C:0E:15:1D:3C:9A
- Switch 4: 0C:E0:19:A1:4D:16

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

Answer: C

Explanation:

The root bridge is determined by the lowest bridge ID, which consists of the priority value and the MAC address. Because the priority values of all of the switches are not available, the MAC address is used to determine the root bridge. Because S3 has the lowest MAC address, S3 becomes the root bridge.

NEW QUESTION 319

- (Topic 1)
What occurs when overlapping Wi-Fi channels are implemented?

- A. The wireless network becomes vulnerable to unauthorized access.
- B. Wireless devices are unable to distinguish between different SSIDs
- C. Users experience poor wireless network performance.
- D. Network communications are open to eavesdropping.

Answer: C

NEW QUESTION 323

- (Topic 1)

What mechanism carries multicast traffic between remote sites and supports encryption?

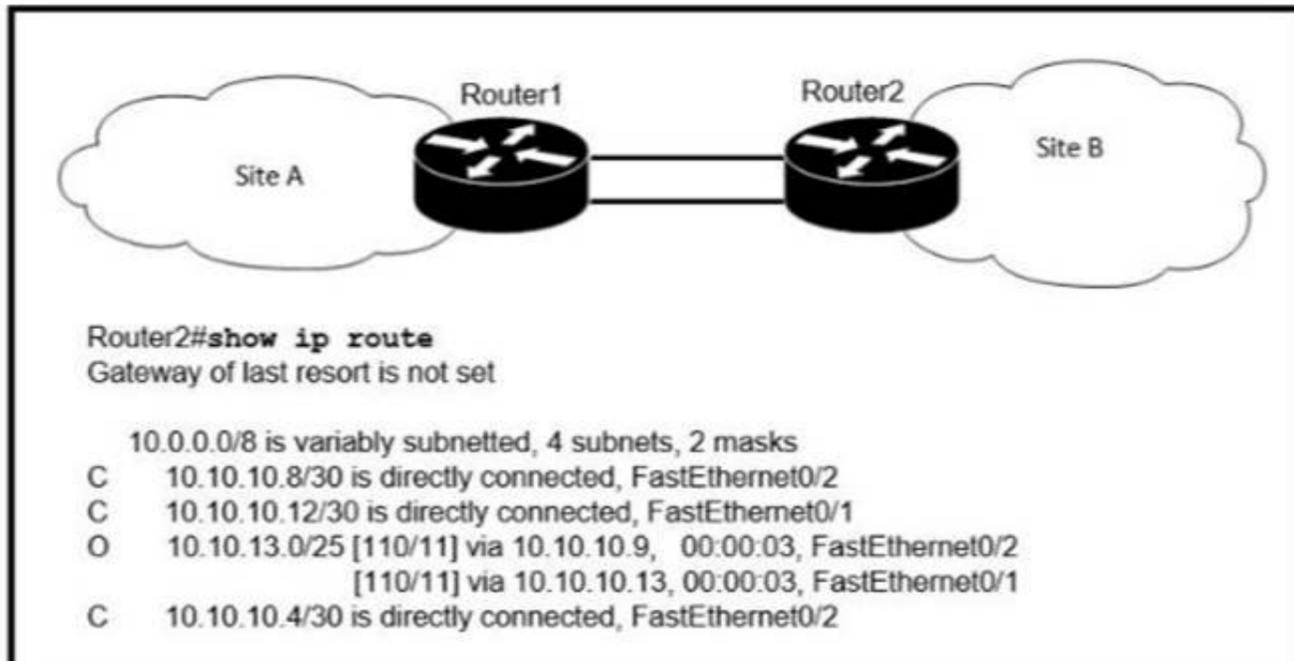
- A. ISATAP
- B. GRE over iPsec
- C. iPsec over ISATAP
- D. GRE

Answer: B

NEW QUESTION 328

- (Topic 1)

Refer to the exhibit.



If OSPF is running on this network, how does Router 2 handle traffic from Site B to 10.10.13/25 at Site A?

- A. It sends packets out of interface Fa0/2 only.
- B. It sends packets out of interface Fa0/1 only.
- C. It cannot send packets to 10.10.13.128/25
- D. It load-balances traffic out of Fa0/1 and Fa0/2

Answer: C

Explanation:

Router2 does not have an entry for the subnet 10.10.13.128/25. It only has an entry for 10.10.13.0/25, which ranges from 10.10.13.0 to 10.10.13.127.
<https://study-ccna.com/administrative-distance-metric/>

NEW QUESTION 329

- (Topic 1)

What are two functions of a Layer 2 switch? (Choose two)

- A. acts as a central point for association and authentication servers
- B. selects the best route between networks on a WAN
- C. moves packets within a VLAN
- D. moves packets between different VLANs
- E. makes forwarding decisions based on the MAC address of a packet

Answer: AE

NEW QUESTION 332

- (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 335

- (Topic 1)

Which CRUD operation corresponds to the HTTP GET method?

- A. read
- B. update
- C. create
- D. delete

Answer: A

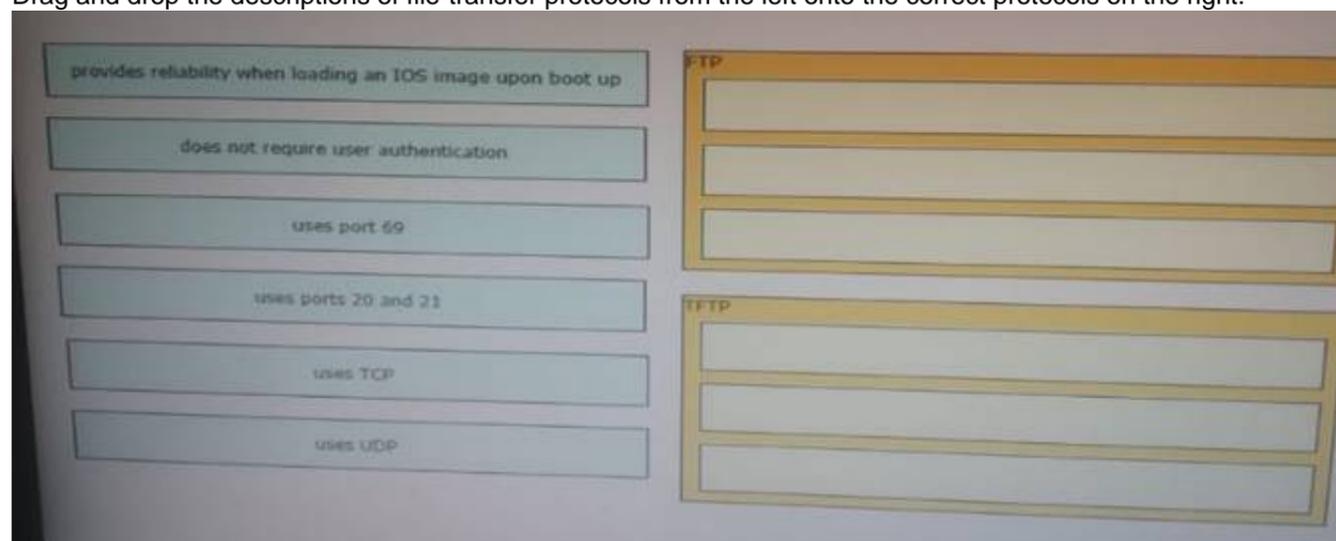
Explanation:

GET: This method retrieves the information identified by the request URI. In the context of the RESTful web services, this method is used to retrieve resources. This is the method used for read operations (the R in CRUD).
<https://hub.packtpub.com/crud-operations-rest/>

NEW QUESTION 338

DRAG DROP - (Topic 1)

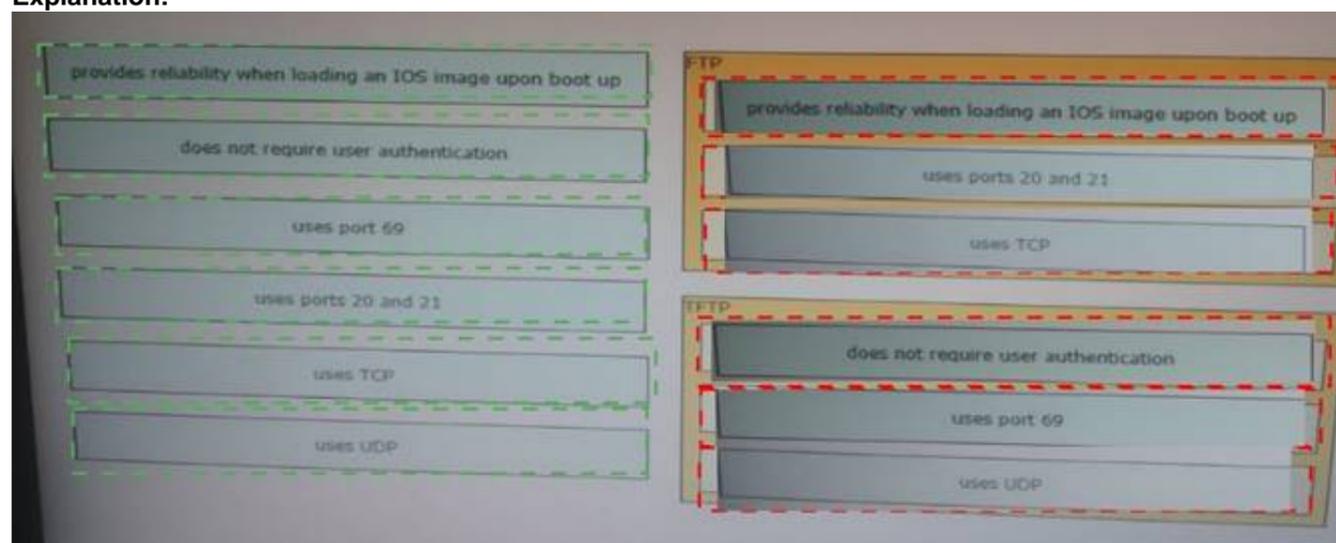
Drag and drop the descriptions of file-transfer protocols from the left onto the correct protocols on the right.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 339

- (Topic 1)

Which resource is able to be shared among virtual machines deployed on the same physical server?

- A. disk
- B. applications
- C. VM configuration file
- D. operating system

Answer: C

NEW QUESTION 342

DRAG DROP - (Topic 1)

Drag and drop the WLAN components from the left onto the correct descriptions on the right.

access point	device that manages access points
virtual interface	device that provides Wi-Fi devices with a connection to a wired network
dynamic interface	used for out of band management of a WLC
service port	used to support mobility management of the WLC
wireless LAN controller	applied to the WLAN for wireless client communication

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

access point	wireless LAN controller
virtual interface	access point
dynamic interface	service port
service port	virtual interface
wireless LAN controller	dynamic interface

NEW QUESTION 344

- (Topic 1)

Which type of attack can be mitigated by dynamic ARP inspection?

- A. worm
- B. malware
- C. DDoS
- D. man-in-the-middle

Answer: D

NEW QUESTION 347

- (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 352

- (Topic 1)

Refer to the exhibit.

```
SW1#show spanning-tree vlan 30

VLAN0030
Spanning tree enabled protocol rstp
Root ID      Priority          32798
             Address          0025.63e9.c800
             Cost          19
             Port          1 (FastEthernet 2/1)
             Hello Time    2 sec
             Max Age       30 sec
             Forward Delay 20 sec

[Output suppressed]
```

What two conclusions should be made about this configuration? (Choose two)

- A. The designated port is FastEthernet 2/1
- B. This is a root bridge
- C. The spanning-tree mode is Rapid PVST+
- D. The spanning-tree mode is PVST+
- E. The root port is FastEthernet 2/1

Answer: CE

Explanation:

An engineer is configuring data and voice services to pass through the same port. The designated switch interface fastethernet0/1 must transmit packets using the same priority for data when they are received from the access port of the IP phone. Which configuration must be used?

A)

```
interface fastethernet0/1
switchport priority extend cos 7
```

B)

```
interface fastethernet0/1
switchport voice vlan untagged
```

C)

```
interface fastethernet0/1
switchport voice vlan dot1p
```

D)

```
interface fastethernet0/1
switchport priority extend trust
```

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

Answer: A

NEW QUESTION 356

- (Topic 1)

Refer to the exhibit.

```
ip arp inspection vlan 2-10
interface fastethernet 0/1
    ip arp inspection trust
```

If the network environment is operating normally, which type of device must be connected to interface FastEthernet 0/1?

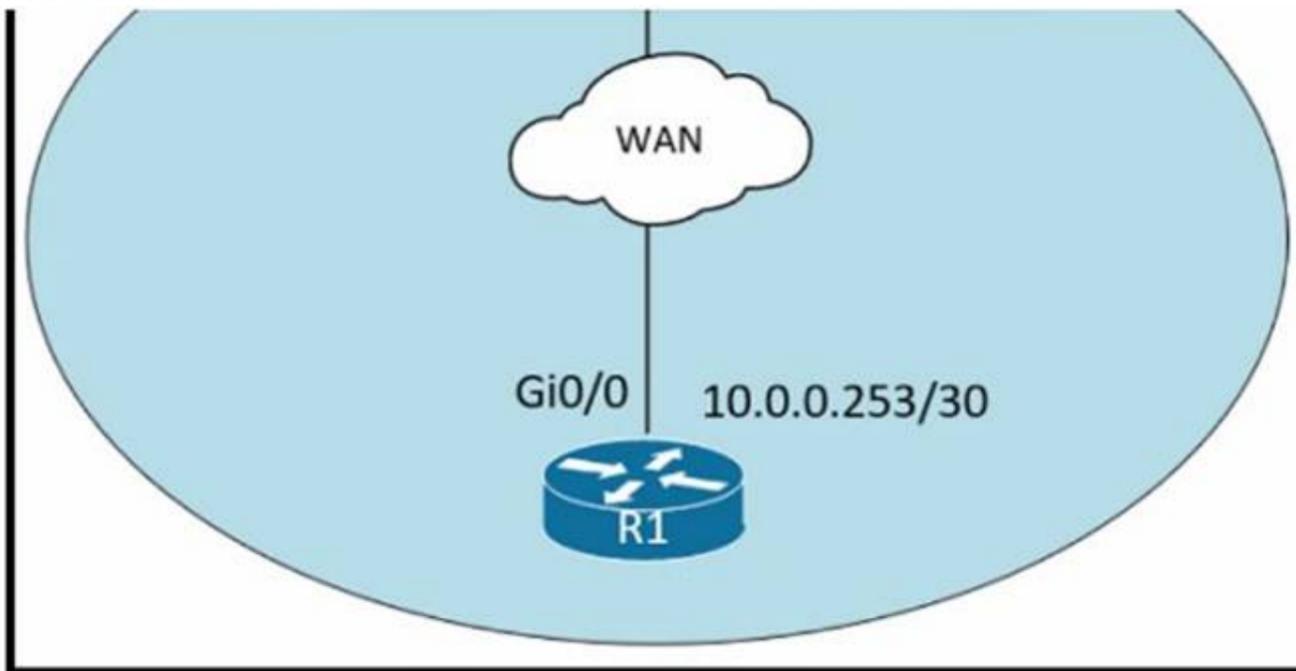
- A. DHCP client
- B. access point
- C. router
- D. PC

Answer: C

NEW QUESTION 359

- (Topic 1)

Refer to the exhibit.



An administrator must turn off the Cisco Discovery Protocol on the port configured with address last usable address in the 10.0.0.0/30 subnet. Which command set meets the requirement?

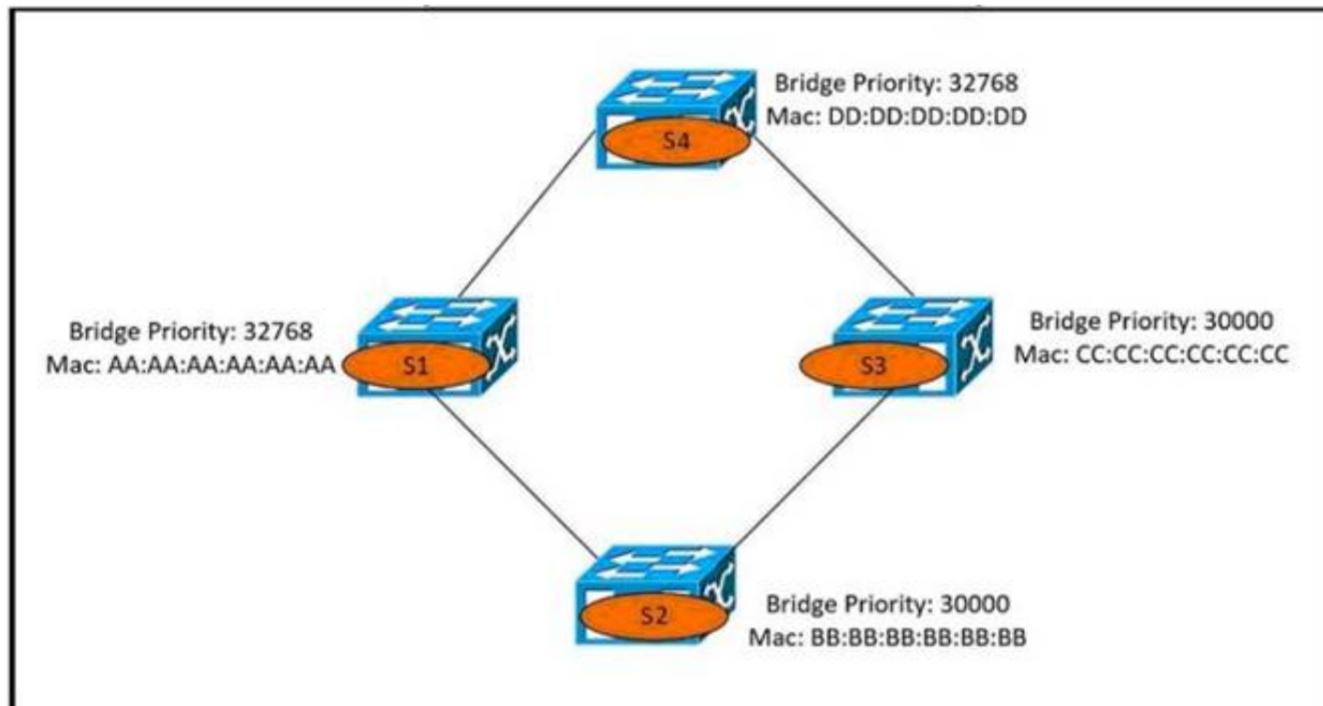
- A. interface gi0/1 no cdp enable
- B. interface gi0/1 clear cdp table
- C. interface gi0/0 no cdp advertise-v2
- D. interface gi0/0 no cdp run

Answer: D

NEW QUESTION 364

- (Topic 1)

Refer to the exhibit.



Which switch becomes the root bridge?

- A. S1
- B. S2
- C. S3
- D. S4

Answer: B

NEW QUESTION 365

- (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 369

DRAG DROP - (Topic 1)

Drag and drop the QoS congestion management terms from the left onto the description on the right.

CBWQ	places packets into one of four priority-based queues
CQ	provides guaranteed bandwidth to a specified class of traffic
FIFO	provides minimum guaranteed bandwidth to one or more flows
PQ	services a specified number of bytes in one queue before continuing to the next queue
WFQ	uses store-and-forward queuing

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

CBWQ	WFQ
CQ	CBWQ
FIFO	FIFO
PQ	PQ
WFQ	CQ

NEW QUESTION 370

- (Topic 1)

What are two southbound APIs? (Choose two)

- A. OpenFlow
- B. NETCONF
- C. Thrift
- D. CORBA
- E. DSC

Answer: AB

Explanation:

OpenFlow is a well-known southbound API. OpenFlow defines the way the SDN Controller should interact with the forwarding plane to make adjustments to the network, so it can better adapt to changing business requirements.

The Network Configuration Protocol (NetConf) uses Extensible Markup Language (XML) to install, manipulate and delete configuration to network devices.

NEW QUESTION 375

- (Topic 1)

What is the purpose of a southbound API in a control based networking architecture?

- A. Facilities communication between the controller and the applications
- B. Facilities communication between the controller and the networking hardware
- C. allows application developers to interact with the network
- D. integrates a controller with other automation and orchestration tools.

Answer: B

Explanation:

<https://www.ciscopress.com/articles/article.asp?p=2995354&seqNum=2#:~:text=The%20Southbound%20Interface,communicate%20to%20the%20networking%20devices.&text=The%20overall%20goal%20is%20network,from%20being%20only%20a%20protocol>

The Southbound Interface

In a controller-based network architecture, the controller needs to communicate to the networking devices.

NEW QUESTION 377

- (Topic 1)

How does a switch process a frame received on Fa0/1 with the destination MAC address of 0e38.7363.657b when the table is missing the address?

- A. It drops the frame immediately.
- B. It forwards the frame back out of interface Fa0/1.
- C. It floods the frame to all interfaces except Fa0/1.
- D. It holds the frame until the MAC address timer expires and then drops the frame.

Answer: C

NEW QUESTION 379

- (Topic 1)

A network engineer must back up 20 network router configurations globally within a customer environment. Which protocol allows the engineer to perform this function using the Cisco IOS MIB?

- A. CDP
- B. SNMP
- C. SMTP
- D. ARP

Answer: B

Explanation:

SNMP is an application-layer protocol that provides a message format for communication between SNMP managers and agents. SNMP provides a standardized framework and a common language used for the monitoring and management of devices in a network. The SNMP framework has three parts: + An SNMP manager + An SNMP agent + A Management Information Base (MIB) The Management Information Base (MIB) is a virtual information storage area for network management information, which consists of collections of managed objects. With SNMP, the network administrator can send commands to multiple routers to do the backup

NEW QUESTION 384

- (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 385

- (Topic 1)

Which action does the router take as it forwards a packet through the network?

- A. The router replaces the original source and destination MAC addresses with the sending router MAC address as the source and neighbor MAC address as the destination
- B. The router encapsulates the original packet and then includes a tag that identifies the source router MAC address and transmits it transparently to the destination
- C. The router encapsulates the source and destination IP addresses with the sending router IP address as the source and the neighbor IP address as the destination
- D. The router replaces the source and destination labels with the sending router interface label as a source and the next hop router label as a destination

Answer: A

NEW QUESTION 389

- (Topic 1)

An engineer needs to add an old switch back into a network. To prevent the switch from corrupting the VLAN database which action must be taken?

- A. Add the switch in the VTP domain with a lower revision number
- B. Add the switch with DTP set to dynamic desirable
- C. Add the switch in the VTP domain with a higher revision number
- D. Add the switch with DTP set to desirable

Answer: A

NEW QUESTION 392

- (Topic 1)

When a floating static route is configured, which action ensures that the backup route is used when the primary route fails?

- A. The floating static route must have a higher administrative distance than the primary route so it is used as a backup
- B. The administrative distance must be higher on the primary route so that the backup route becomes secondary.
- C. The floating static route must have a lower administrative distance than the primary route so it is used as a backup
- D. The default-information originate command must be configured for the route to be installed into the routing table

Answer: A

NEW QUESTION 393

- (Topic 1)

Refer to exhibit.

```
Router(config)#interface GigabitEthernet 1/0/1
Router(config-if)#ip address 192.168.16.143 255.255.255.240
Bad mask /28 for address 192.168.16.143
```

Which statement explains the configuration error message that is received?

- A. It is a broadcast IP address
- B. The router does not support /28 mask.
- C. It belongs to a private IP address range.
- D. IT is a network IP address.

Answer: A

NEW QUESTION 394

- (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 395

- (Topic 1)

A port security violation has occurred on a switch port due to the maximum MAC address count being exceeded. Which command must be configured to increment the security- violation count and forward an SNMP trap?

- A. switchport port-security violation access
- B. switchport port-security violation protect
- C. switchport port-security violation restrict
- D. switchport port-security violation shutdown

Answer: C

Explanation:

https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst4500/12-2/25ew/configuration/guide/conf/port_sec.html

NEW QUESTION 398

- (Topic 1)

Which device controls the forwarding of authentication requests for users when connecting to the network using a lightweight access point?

- A. TACACS server
- B. wireless access point
- C. RADIUS server
- D. wireless LAN controller

Answer: B

NEW QUESTION 402

- (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 406

- (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 411

- (Topic 1)

What are two characteristics of the distribution layer in a three-tier network architecture? (Choose two.)

- A. serves as the network aggregation point
- B. provides a boundary between Layer 2 and Layer 3 communications
- C. designed to meet continuous, redundant uptime requirements
- D. is the backbone for the network topology
- E. physical connection point for a LAN printer

Answer: BC

NEW QUESTION 415

- (Topic 1)

Which two events occur automatically when a device is added to Cisco DNA Center? (Choose two.)

- A. The device is assigned to the Global site.
- B. The device is placed into the Unmanaged state.
- C. The device is placed into the Provisioned state.
- D. The device is placed into the Managed state.
- E. The device is assigned to the Local site.

Answer: AB

NEW QUESTION 416

- (Topic 1)

Which level of severity must be set to get informational syslogs?

- A. alert
- B. critical
- C. notice
- D. debug

Answer: C

NEW QUESTION 421

- (Topic 1)

How do TCP and UDP differ in the way that they establish a connection between two endpoints?

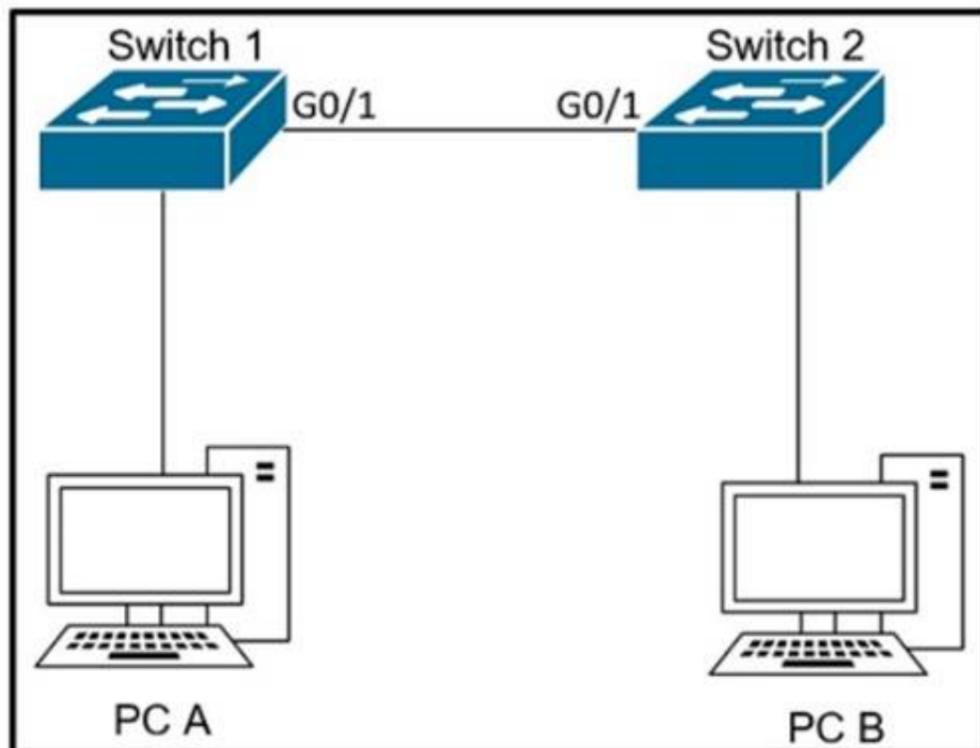
- A. TCP uses synchronization packets, and UDP uses acknowledgment packets.
- B. UDP uses SYN, SYN ACK and FIN bits in the frame header while TCP uses SYN, SYN ACK and ACK bits
- C. UDP provides reliable message transfer and TCP is a connectionless protocol
- D. TCP uses the three-way handshake and UDP does not guarantee message delivery

Answer: D

NEW QUESTION 425

- (Topic 1)

Refer to the exhibit.



The network administrator wants VLAN 67 traffic to be untagged between Switch 1 and Switch 2 while all other VLANs are to remain tagged. Which command accomplishes this task?

- A. switchport access vlan 67
- B. switchport trunk allowed vlan 67
- C. switchport private-vlan association host 67
- D. switchport trunk native vlan 67

Answer: D

NEW QUESTION 430

- (Topic 1)

What is a DHCP client?

- A. a workstation that requests a domain name associated with its IP address
- B. a host that is configured to request an IP address automatically
- C. a server that dynamically assigns IP addresses to hosts.
- D. a router that statically assigns IP addresses to hosts.

Answer: B

NEW QUESTION 432

- (Topic 1)

Which global command encrypt all passwords in the running configuration?

- A. password-encrypt
- B. enable password-encryption
- C. enable secret
- D. service password-encryption

Answer: B

NEW QUESTION 436

- (Topic 1)

Which command enables a router to become a DHCP client?

- A. ip address dhcp
- B. ip helper-address
- C. ip dhcp pool
- D. ip dhcp client

Answer: A

Explanation:

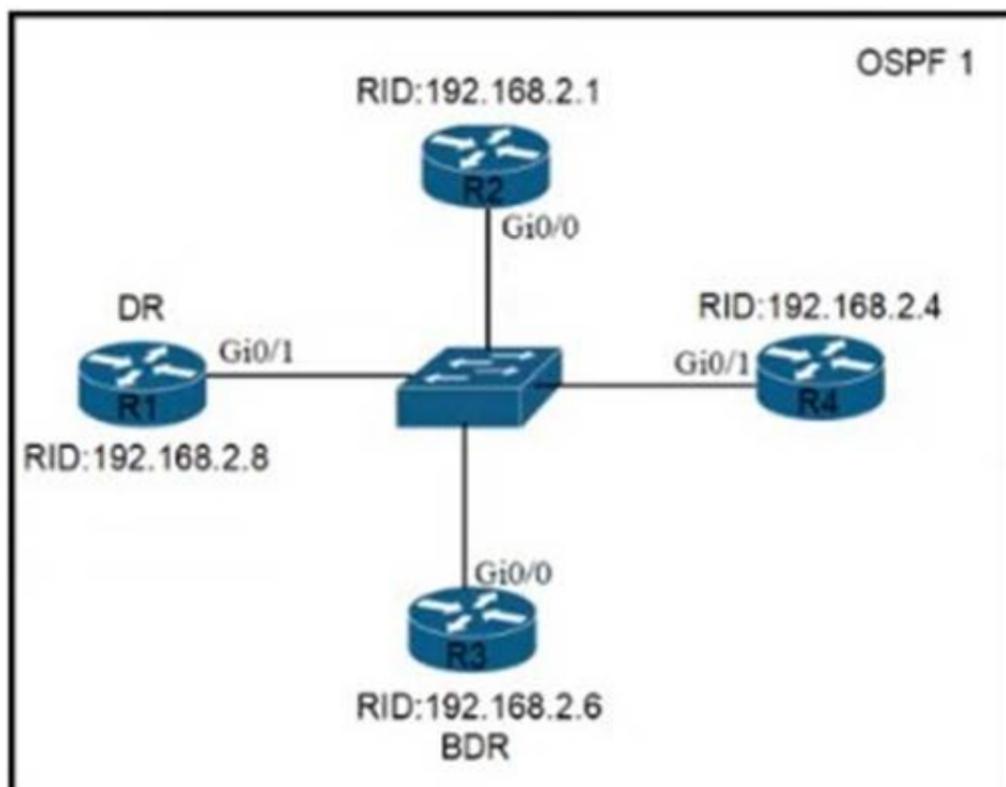
Reference: https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipaddr_dhcp/configuration/12-4/dhcp-12-4-book/config-dhcp-client.html

If we want to get an IP address from the DHCP server on a Cisco device, we can use the command "ip address dhcp".

Note: The command "ip helper-address" enables a router to become a DHCP Relay Agent.

NEW QUESTION 438

- (Topic 1)



Refer to the exhibit. All routers in the network are configured R2 must be the DR. After the engineer connected the devices, R1 was elected as the DR. Which command sequence must be configure on R2 to Be elected as the DR in the network?

- R2(config)#interface gi0/0
R2(config-if)#ip ospf priority 1
- R2(config)#interface gi0/0
R2(config-if)#ip ospf priority 100
- R2(config)#router ospf 1
R2(config-router)#router-id 10.100.100.100
- R2(config)#router ospf 1
R2(config-router)#router-id 192.168.2.7

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

Answer: B

NEW QUESTION 440

DRAG DROP - (Topic 1)

An engineer is configuring an encrypted password for the enable command on a router where the local user database has already been configured Drag and drop the configuration commands from the left into the correct sequence on the right Not all commands are used

configure terminal	first
enable	second
enable secret \$hfl@4fs	third
exit	fourth
line vty 0 4	
service password-encryption	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 444

- (Topic 1)

What does a router do when configured with the default DNS lookup settings, and a URL is entered on the CLI?

- A. initiates a ping request to the URL
- B. prompts the user to specify the desired IP address
- C. continuously attempts to resolve the URL until the command is cancelled
- D. sends a broadcast message in an attempt to resolve the URL

Answer: D

NEW QUESTION 448

- (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 451

- (Topic 1)

What is a function of the Cisco DNA Center Overall Health Dashboard?

- A. It provides a summary of the top 10 global issues.
- B. It provides detailed activity logging for the 10 devices and users on the network.
- C. It summarizes the operational status of each wireless device on the network.
- D. It summarizes daily and weekly CPU usage for servers and workstations in the network.

Answer: A

NEW QUESTION 454

- (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 456

- (Topic 1)

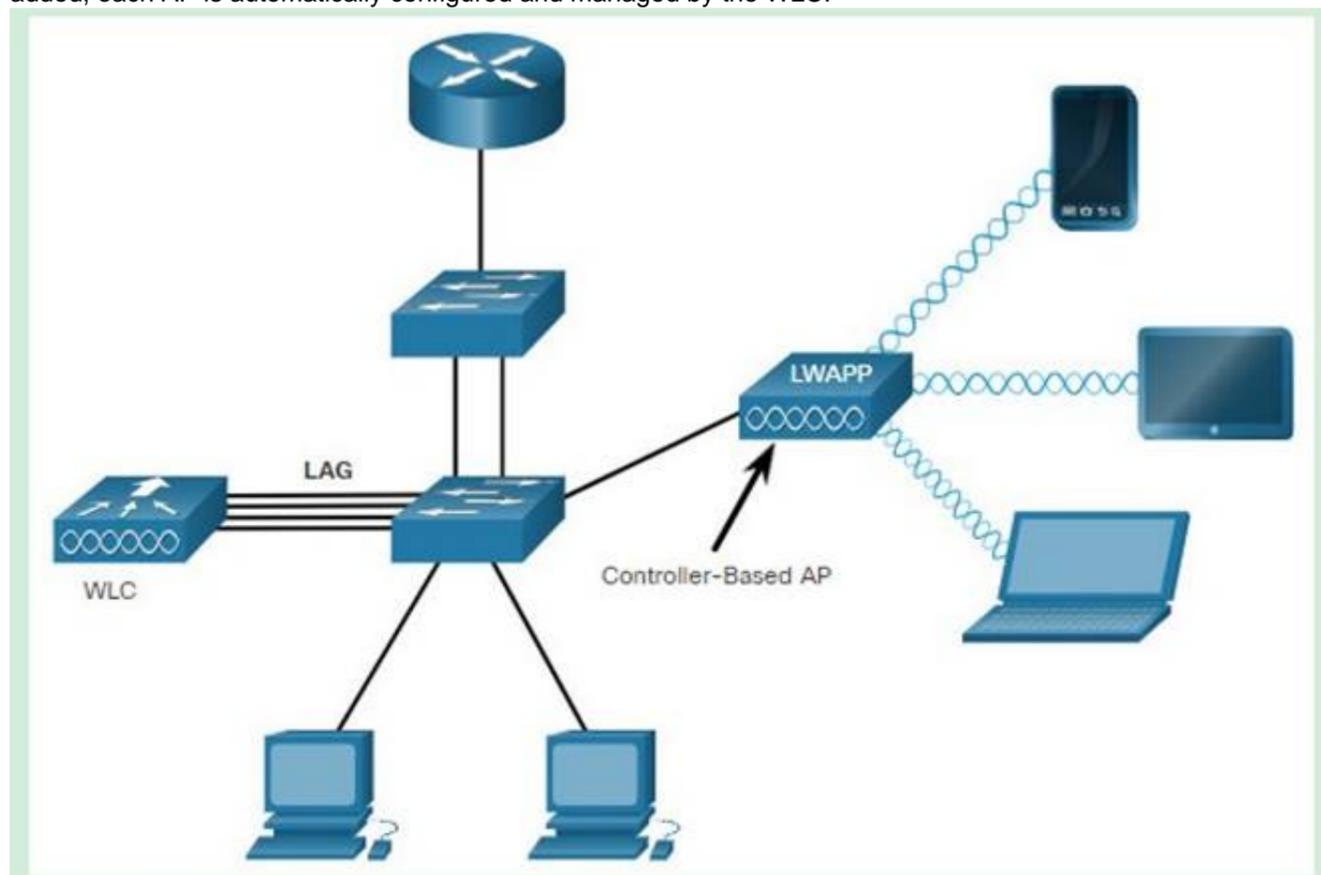
What is a function of Wireless LAN Controller?

- A. register with a single access point that controls traffic between wired and wireless endpoints.
- B. use SSIDs to distinguish between wireless clients.
- C. send LWAPP packets to access points.
- D. monitor activity on wireless and wired LANs

Answer: C

Explanation:

Lightweight APs (LAPs) is devices require no initial configuration. LAPs use the Lightweight Access Point Protocol (LWAPP) to communicate with a WLAN controller (WLC), as shown in the below figure. Controller-based APs are useful in situations where many APs are required in the network. As more APs are added, each AP is automatically configured and managed by the WLC.



NEW QUESTION 457

- (Topic 1)

When configuring IPv6 on an interface, which two IPv6 multicast groups are joined? (Choose two)

- A. 2000::/3
- B. 2002::5
- C. FC00::/7
- D. FF02::1
- E. FF02::2

Answer: DE

Explanation:

Reference:

<https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipv6/configuration/xr-3s/ipv6-xr-36s-book/ipv6-multicast.html>

When an interface is configured with IPv6 address, it automatically joins the all nodes (FF02::1) and solicited-node (FF02::1:FFxx:xxxx) multicast groups. The all-node group is used to communicate with all interfaces on the local link, and the solicited-nodes multicast group is required for link-layer address resolution. Routers also join a third multicast group, the all-routers group (FF02::2).

NEW QUESTION 462

DRAG DROP - (Topic 1)

Drag and drop the SNMP manager and agent identifier commands from the left onto the functions on the right

show snmp chassis	displays information about the SNMP recipient
show snmp community	displays the IP address of the remote SNMP device
show snmp engineID	displays the SNMP security model in use
show snmp group	displays the SNMP access string
show snmp host	displays the SNMP server serial number

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

show snmp chassis	show snmp host
show snmp community	show snmp engineID
show snmp engineID	show snmp group
show snmp group	show snmp community
show snmp host	show snmp chassis

NEW QUESTION 464

- (Topic 1)

Where is the interface between the control plane and data plane within the software- defined architecture?

- A. control layer and the infrastructure layer
- B. application layer and the infrastructure layer
- C. control layer and the application layer
- D. application layer and the management layer

Answer: A

NEW QUESTION 467

- (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 470

- (Topic 1)

Which mode allows access points to be managed by Cisco Wireless LAN Controllers?

- A. autonomous
- B. lightweight
- C. bridge
- D. mobility express

Answer: B

Explanation:

<https://www.cisco.com/c/en/us/support/docs/wireless/aironet-1200-series/70278-lap-faq.html>

A Lightweight Access Point (LAP) is an AP that is designed to be connected to a wireless LAN (WLAN) controller (WLC). APs are “lightweight,” which means that they cannot act independently of a wireless LAN controller (WLC). The WLC manages the AP configurations and firmware. The APs are “zero touch” deployed, and individual configuration of APs is not necessary.

NEW QUESTION 473

- (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 474

- (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 475

- (Topic 1)

What is a characteristic of a SOHO network?

- A. connects each switch to every other switch in the network
- B. enables multiple users to share a single broadband connection
- C. provides high throughput access for 1000 or more users
- D. includes at least three tiers of devices to provide load balancing and redundancy

Answer: B

NEW QUESTION 478

- (Topic 1)

What are two functions of an SDN controller? (Choose two)

- A. Layer 2 forwarding
- B. coordinating VTNs
- C. tracking hosts
- D. managing the topology
- E. protecting against DDoS attacks

Answer: BD

NEW QUESTION 482

- (Topic 1)

A manager asks a network engineer to advise which cloud service models are used so employees do not have to waste their time installing, managing, and updating software which is only used occasionally Which cloud service model does the engineer recommend?

- A. infrastructure-as-a-service
- B. platform-as-a-service
- C. business process as service to support different types of service
- D. software-as-a-service

Answer: D

NEW QUESTION 487

- (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

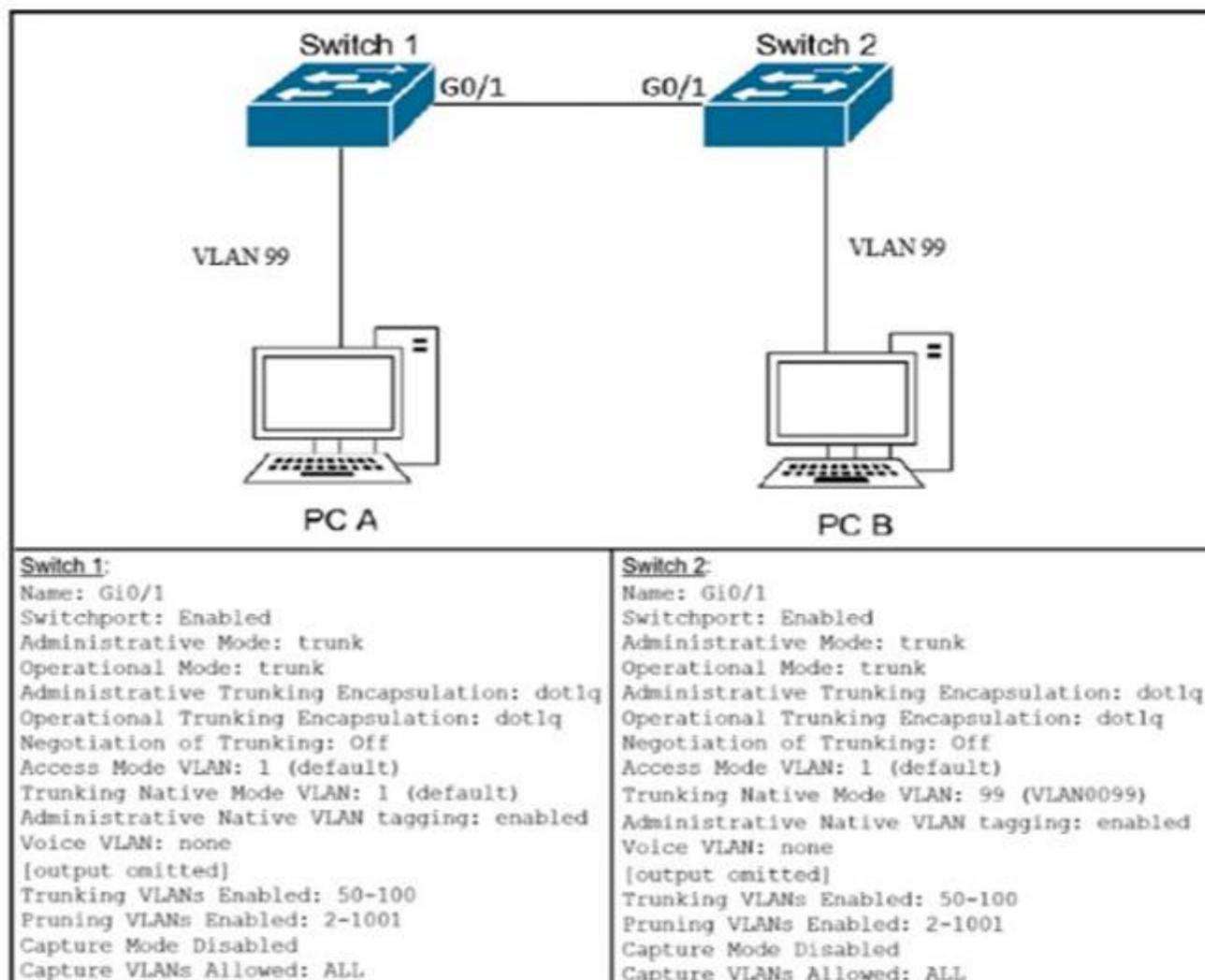
Explanation:

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 172.123.104.4.

NEW QUESTION 492

- (Topic 1)

Refer to the Exhibit.



After the switch configuration the ping test fails between PC A and PC B Based on the output for switch 1. which error must be corrected?

- A. There is a native VLAN mismatch
- B. Access mode is configured on the switch ports.
- C. The PCs are in the incorrect VLAN
- D. All VLANs are not enabled on the trunk

Answer: A

Explanation:

From the output we see the native VLAN of Switch1 on Gi0/1 interface is VLAN 1 while that of Switch2 is VLAN 99 so there would be a native VLAN mismatch.

NEW QUESTION 496

- (Topic 1)

A frame that enters a switch fails the Frame Check Sequence. Which two interface counters are incremented? (Choose two)

- A. runts
- B. giants
- C. frame
- D. CRC
- E. input errors

Answer: DE

Explanation:

Whenever the physical transmission has problems, the receiving device might receive a frame whose bits have changed values. These frames do not pass the error detection logic as implemented in the FCS field in the Ethernet trailer. The receiving device discards the frame and counts it as some kind of input error. Cisco switches list this error as a CRC error. Cyclic redundancy check (CRC) is a term related to how the FCS math detects an error.

The "input errors" includes runts, giants, no buffer, CRC, frame, overrun, and ignored counts.

The output below show the interface counters with the "show interface s0/0/0" command:

```
Router#show interface s0/0/0
Serial0/0/0 is up, line protocol is up
Hardware is M4T
Description: Link to R2
Internet address is 10.1.1.1/30
MTU 1500 bytes, BW 1544 Kbit, DLY 20000 usec,
  reliability 255/255, txload 1/255, rxload 1/255
--output omitted--
5 minute output rate 0 bits/sec, 0 packets/sec
 268 packets input, 24889 bytes, 0 no buffer
Received 0 broadcasts, 0 runts, 0 giants, 0 throttles
 0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
251 packets output, 23498 bytes, 0 underruns
 0 output errors, 0 collisions, 0 interface resets
 0 output buffer failures, 0 output buffers swapped out
 0 carrier transitions      DCD=up DSR=up DTR=up RTS=up CTS=up
```

NEW QUESTION 497

- (Topic 1)

Which type of security program is violated when a group of employees enters a building using the ID badge of only one person?

- A. intrusion detection
- B. user awareness
- C. physical access control
- D. network authorization

Answer: C

NEW QUESTION 499

- (Topic 1)

When implementing a router as a DHCP server, which two features must be configured? (Choose two)

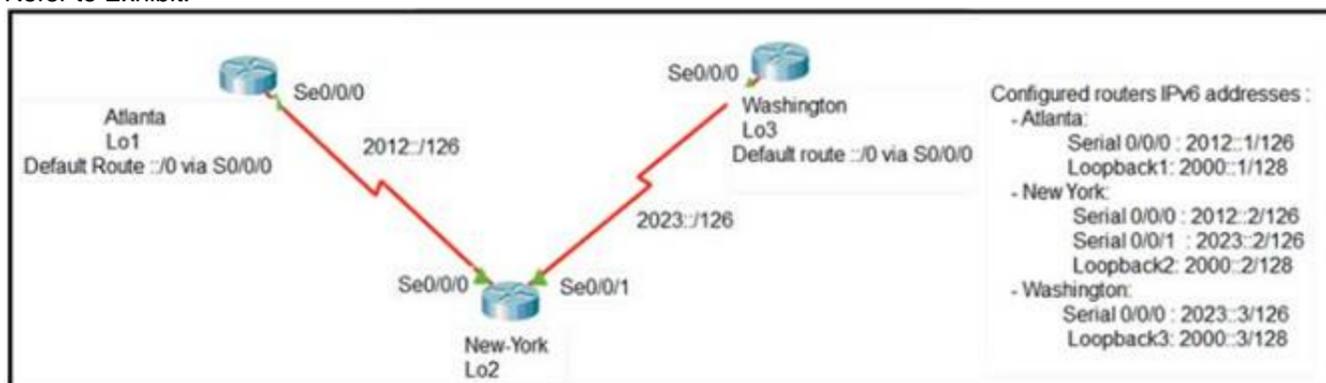
- A. relay agent information
- B. database agent
- C. address pool
- D. smart-relay
- E. manual bindings

Answer: CE

NEW QUESTION 502

- (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 507

- (Topic 1)

If a notice-level message is sent to a syslog server, which event has occurred?

- A. A network device has restarted
- B. An ARP inspection has failed
- C. A routing instance has flapped
- D. A debug operation is running

Answer: C

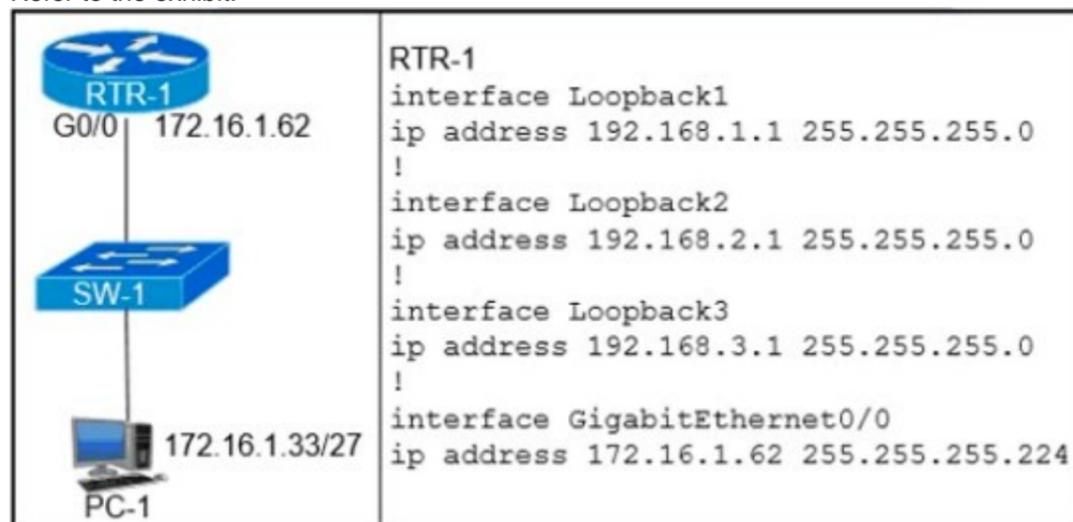
Explanation:

Usually no action is required when a route flaps so it generates the notification syslog level message (level 5).

NEW QUESTION 508

- (Topic 1)

Refer to the exhibit.



Which configuration on RTR-1 denies SSH access from PC-1 to any RTR-1 interface and allows all other traffic?

- A. access-list 100 deny tcp host 172.16.1.33 any eq 22 access-list 100 permit ip any any interface GigabitEthernet0/0 ip access-group 100 in
- B. access-list 100 deny tcp host 172.16.1.33 any eq 22 access-list 100 permit ip any any line vty 0 15 ip access-group 100 in
- C. access-list 100 deny tcp host 172.16.1.33 any eq 23 access-list 100 permit ip any any interface GigabitEthernet0/0 ip access-group 100 in
- D. access-list 100 deny tcp host 172.16.1.33 any eq 23 access-list 100 permit ip any any line vty 0 15 ip access-group 100 in

Answer: B

NEW QUESTION 512

- (Topic 1)

Which command entered on 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_time Configures 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 515

- (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 518

- (Topic 1)

How are VLAN hopping attacks mitigated?

- A. enable dynamic ARP inspection
- B. manually implement trunk ports and disable DTP
- C. activate all ports and place in the default VLAN
- D. configure extended VLANs

Answer: B

NEW QUESTION 520

- (Topic 1)

Which state does the switch port move to when PortFast is enabled?

- A. learning
- B. forwarding
- C. blocking
- D. listening

Answer: B

NEW QUESTION 524

- (Topic 1)

An organization has decided to start using cloud-provided services. Which cloud service allows the organization to install its own operating system on a virtual machine?

- A. platform-as-a-service
- B. software-as-a-service
- C. network-as-a-service
- D. infrastructure-as-a-service

Answer: B

Explanation:

Below are the 3 cloud supporting services cloud providers provide to customer:

+ SaaS (Software as a Service): SaaS uses the web to deliver applications that are managed by a thirdparty vendor and whose interface is accessed on the clients' side. Most SaaS applications can be run directly from a web browser without any downloads or installations required, although some require plugins.

+ PaaS (Platform as a Service): are used for applications, and other development, while providing cloud components to software. What developers gain with PaaS is a framework they can build upon to develop or customize applications. PaaS makes the development, testing, and deployment of applications quick, simple, and cost-effective. With this technology, enterprise operations, or a thirdparty provider, can manage OSes, virtualization, servers, storage, networking, and the PaaS software itself. Developers, however, manage the applications.

+ IaaS (Infrastructure as a Service): self-service models for accessing, monitoring, and managing remote datacenter infrastructures, such as compute (virtualized or bare metal), storage, networking, and networking services (e.g. firewalls). Instead of having to purchase hardware outright, users can purchase IaaS based on consumption, similar to electricity or other utility billing.

In general, IaaS provides hardware so that an organization can install their own operating system.

NEW QUESTION 525

- (Topic 1)

Which QoS Profile is selected in the GUI when configuring a voice over WLAN deployment?

- A. Bronze
- B. Platinum
- C. Silver
- D. Gold

Answer: B

Explanation:

Reference: <https://www.cisco.com/c/en/us/support/docs/wireless-mobility/wireless-lan-wlan/81831-qos-wlc-lap.html>

Cisco Unified Wireless Network solution WLANs support four levels of QoS: Platinum/Voice, Gold/Video, Silver/Best Effort (default), and Bronze/Background.

NEW QUESTION 527

- (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 532

- (Topic 1)

A network administrator must enable DHCP services between two sites. What must be configured for the router to pass DHCPDISCOVER messages on to the server?

- A. a DHCP Relay Agent
- B. DHCP Binding
- C. a DHCP Pool
- D. DHCP Snooping

Answer: A

NEW QUESTION 536

- (Topic 1)

Which IPv6 address block sends packets to a group address rather than a single address?

- A. 2000::/3

- B. FC00::/7
- C. FE80::/10
- D. FF00::/8

Answer: D

Explanation:

FF00::/8 is used for IPv6 multicast and this is the IPv6 type of address the question wants to ask. FE80::/10 range is used for link-local addresses. Link-local addresses only used for communications within the local subnet (automatic address configuration, neighbor discovery, router discovery, and by many routing protocols). It is only valid on the current subnet. It is usually created dynamically using a link-local prefix of FE80::/10 and a 64-bit interface identifier (based on 48-bit MAC address).

NEW QUESTION 538

SIMULATION - (Topic 5)

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

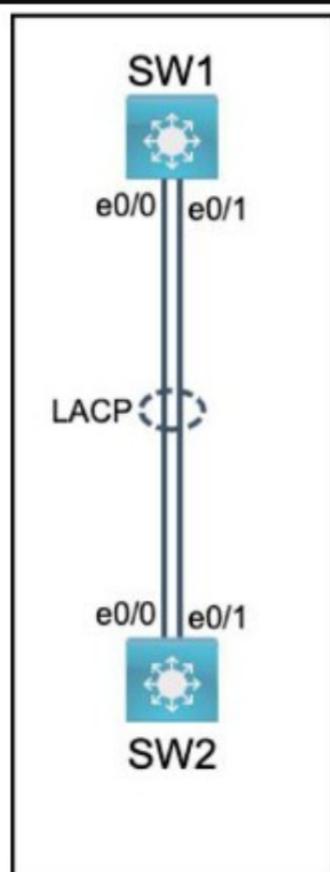
- * 1. Configure an LACP EtherChannel and number it as 44; configure it between switches SW1 and SW2 using interfaces Ethernet0/0 and Ethernet0/1 on both sides. The LACP mode must match on both ends.
- * 2. Configure the EtherChannel as a trunk link.
- * 3. Configure the trunk link with 802.1q tags.
- * 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 541

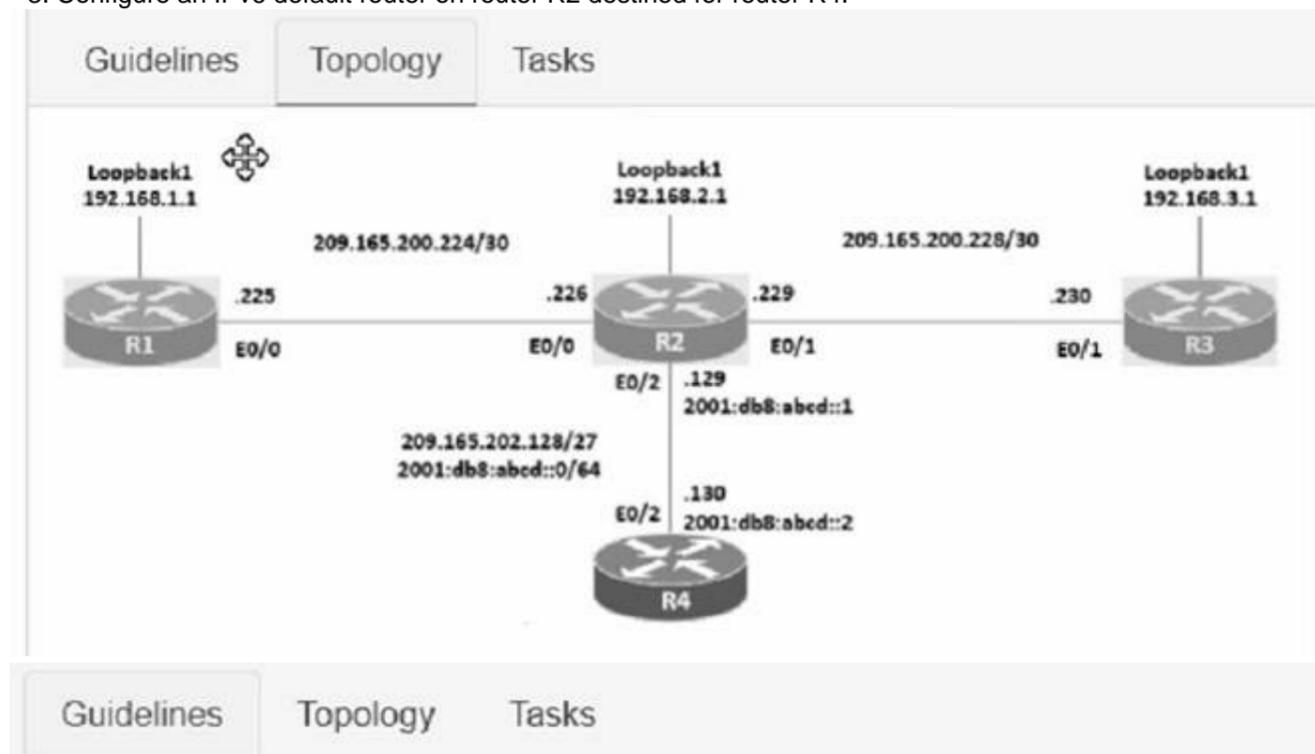
SIMULATION - (Topic 5)

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

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- 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

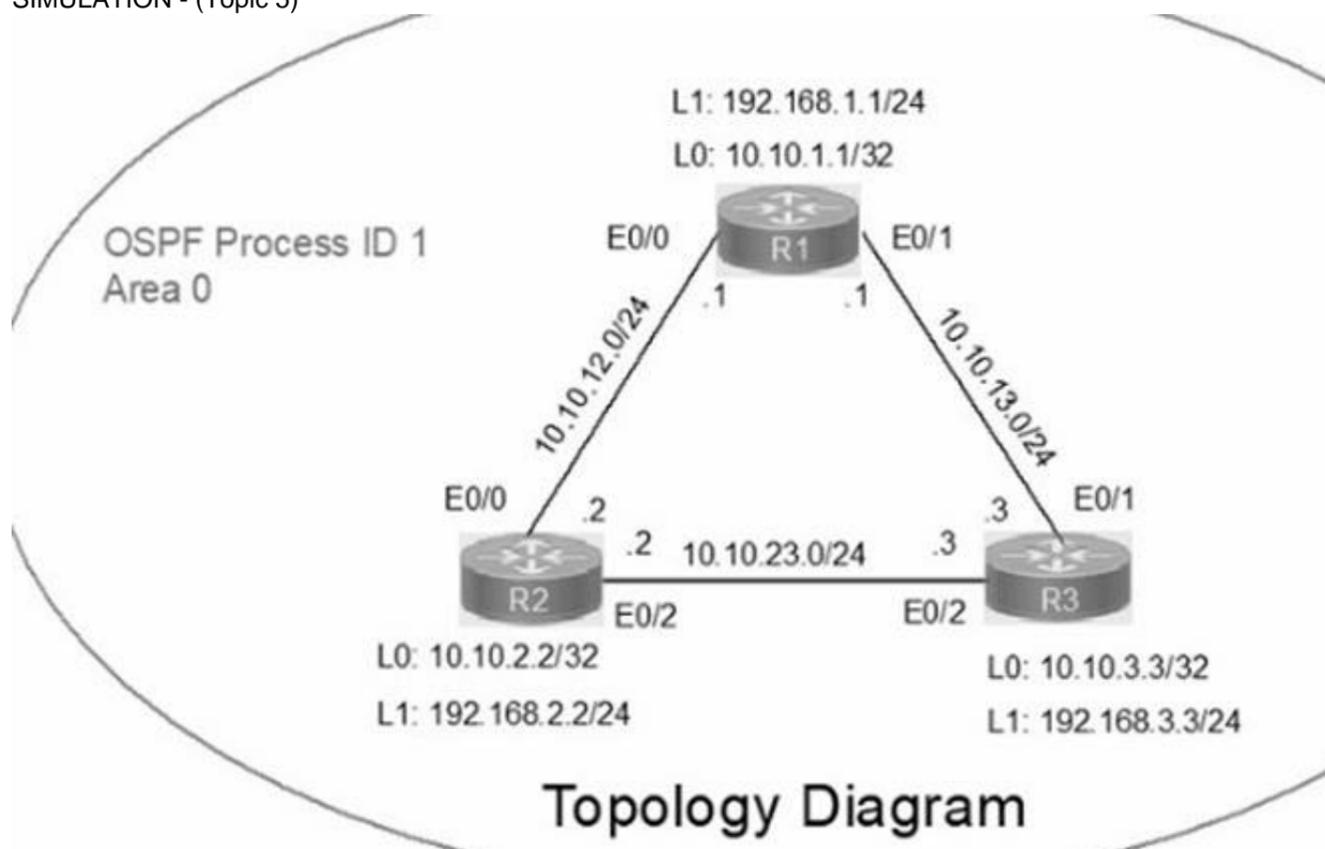
end

copy running start

* 3.- on R2

```
config terminal
ipv6 route ::/0 2001:db8:abcd::2 end
copy running start
```

NEW QUESTION 545
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.

IP connectivity between the three routers is configured. OSPF adjacencies must be established.

- * 1. Configure R1 and R2 Router IDs using the interface IP addresses from the link that is shared between them.
- * 2. Configure the R2 links with a max value facing R1 and R3. R2 must become the DR. R1 and R3 links facing R2 must remain with the default OSPF configuration for DR election. Verify the configuration after clearing the OSPF process.
- * 3. Using a host wildcard mask, configure all three routers to advertise their respective Loopback1 networks.
- * 4. Configure the link between R1 and R3 to disable their ability to add other OSPF routers.

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer as below configuration:
on R1
conf terminal interface Loopback0
ip address 10.10.1.1 255.255.255.255
!
interface Loopback1
ip address 192.168.1.1 255.255.255.0
!
interface Ethernet0/0 no shut
ip address 10.10.12.1 255.255.255.0
ip ospf 1 area 0 duplex auto
!
interface Ethernet0/1 no shut
ip address 10.10.13.1 255.255.255.0
ip ospf 1 area 0 duplex auto
!
router ospf 1
router-id 10.10.12.1
network 10.10.1.1 0.0.0.0 area 0
network 192.168.1.0 0.0.0.255 area 0

```

!
copy run star
-----
On R2
conf terminal interface Loopback0
ip address 10.10.2.2 255.255.255.255
!
interface Loopback1
ip address 192.168.2.2 255.255.255.0
!
interface Ethernet0/0
no shut
ip address 10.10.12.2 255.255.255.0
ip ospf priority 255 ip ospf 1 area 0 duplex auto
!
interface Ethernet0/2 no shut
ip address 10.10.23.2 255.255.255.0
ip ospf priority 255 ip ospf 1 area 0 duplex auto
!
router ospf 1
network 10.10.2.2 0.0.0.0 area 0
network 192.168.2.0 0.0.0.255 area 0
!
copy runs start
-----
On R3
conf ter
interface Loopback0
ip address 10.10.3.3 255.255.255.255
!
interface Loopback1
ip address 192.168.3.3 255.255.255.0
!
interface Ethernet0/1 no shut
ip address 10.10.13.3 255.255.255.0
ip ospf 1 area 0 duplex auto
!
interface Ethernet0/2 no shut
ip address 10.10.23.3 255.255.255.0
ip ospf 1 area 0 duplex auto
!
router ospf 1
network 10.10.3.3 0.0.0.0 area 0
network 192.168.3.0 0.0.0.255 area 0
!
copy run start
!

```

NEW QUESTION 548

SIMULATION - (Topic 5)

All physical cabling is in place. A company plans to deploy 32 new sites. The sites will utilize both IPv4 and IPv6 networks.

* 1 . Subnet 172.25.0.0/16 to meet the subnet requirements and maximize the number of hosts

Using the second subnet

- Assign the first usable IP address to e0/0 on Sw101
- Assign the last usable IP address to e0/0 on Sw102

* 2. Subnet to meet the subnet requirements and maximize the number of hosts

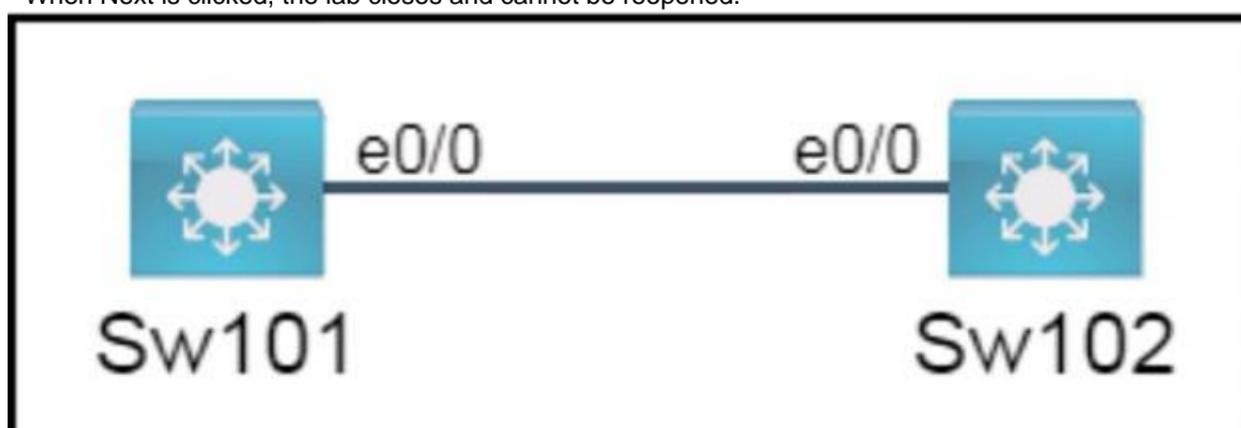
c Using the second subnet

- Assign an IPv6 GUA using a unique 64-Bit interface identifier on e0/0 on Sw101
- Assign an IPv6 GUA using a unique 64-Bit interface identifier on eO/O on swi02

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 subnet 172.25.0.0/16 to meet the subnet requirements and maximize the number of hosts, you need to determine how many bits you need to borrow from the host portion of the address to create enough subnets for 32 sites. Since 32 is 2⁵, you need to borrow 5 bits, which means your new subnet mask will be /21 or 255.255.248.0. To find the second subnet, you need to add the value of the fifth bit (32) to the third octet of the network address (0), which gives you 172.25.32.0/21 as the second subnet. The first usable IP address in this subnet is 172.25.32.1, and the last usable IP address is 172.25.39.254.

? To assign the first usable IP address to e0/0 on Sw101, you need to enter the following commands on the device console:

```
Sw101#configure terminal Sw101(config)#interface e0/0 Sw101(config-if)#ip address 172.25.32.1 255.255.248.0 Sw101(config-if)#no shutdown Sw101(config-if)#end
```

? To assign the last usable IP address to e0/0 on Sw102, you need to enter the following commands on the device console:

```
Sw102#configure terminal Sw102(config)#interface e0/0 Sw102(config-if)#ip address 172.25.39.254 255.255.248.0 Sw102(config-if)#no shutdown Sw102(config-if)#end
```

? To subnet an IPv6 GUA to meet the subnet requirements and maximize the number of hosts, you need to determine how many bits you need to borrow from the interface identifier portion of the address to create enough subnets for 32 sites. Since 32 is 2⁵, you need to borrow 5 bits, which means your new prefix length will be /69 or ffff:fff:fff:fff8::/69 (assuming that your IPv6 GUA has a /64 prefix by default). To find the second subnet, you need to add the value of the fifth bit (32) to the fourth hextet of the network address (0000), which gives you xxxx:xxxx:xxxx:0020::/69 as the second subnet (where xxxx:xxxx:xxxx is your IPv6 GUA prefix). The first and last IPv6 addresses in this subnet are xxxx:xxxx:xxxx:0020::1 and xxxx:xxxx:xxxx:0027:fff:fff:fff:ffe respectively.

? To assign an IPv6 GUA using a unique 64-bit interface identifier on e0/0 on Sw101, you need to enter the following commands on the device console (assuming that your IPv6 GUA prefix is 2001:db8::/64):

```
Sw101#configure terminal Sw101(config)#interface e0/0 Sw101(config-if)#ipv6 address 2001:db8::20::1/69 Sw101(config-if)#no shutdown Sw101(config-if)#end
```

? To assign an IPv6 GUA using a unique 64-bit interface identifier on e0/0 on Sw102, you need to enter the following commands on the device console (assuming that your IPv6 GUA prefix is 2001:db8::/64):

```
Sw102#configure terminal Sw102(config)#interface e0/0 Sw102(config-if)#ipv6 address 2001:db8::27::ffe/69 Sw102(config-if)#no shutdown Sw102(config-if)#end
```

NEW QUESTION 552

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
confined to a single link	
serves as the next-hop addresses	Link-Local Address
is routable and reachable via the Internet	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

provides for one-to-one communication	Global Unicast Address
confined to a single link	
serves as the next-hop addresses	Link-Local Address
is routable and reachable via the Internet	

NEW QUESTION 555

DRAG DROP - (Topic 4)

Refer to the exhibit.

```

R1# show ip route | begin gateway
Gateway of last resort is not set
 172.16.0.0/16 is variably subnetted, 5 subnets, 5 masks
O 172.16.2.128/25 [110/3184437] via 207.165.200.250, 00:00:25, Serial0/0/0
O 172.16.3.64/27 [110/3184437] via 207.165.200.250, 00:00:25, Serial0/0/0
O 172.16.3.128/28 [110/3184437] via 207.165.200.250, 00:00:25, Serial0/0/0
O 172.16.3.192/29 [110/3184437] via 207.165.200.250, 00:00:25, Serial0/0/0
O 172.16.4.0/23 [110/3184437] via 207.165.200.250, 00:00:25, Serial0/0/0
207.165.200.0/24 is variably subnetted, 4 subnets, 2 masks
C 207.165.200.248/30 is directly connected, Serial0/0/0
L 207.165.200.249/32 is directly connected, Serial0/0/0
C 207.165.200.252/30 is directly connected, Serial0/0/1
L 207.165.200.253/32 is directly connected, Serial0/0/1
    
```

Drag and drop the learned prefixes from the left onto the subnet masks on the right

172.16.3.128	255.255.254.0
172.16.3.64	255.255.255.128
172.16.2.128	255.255.255.224
172.16.3.192	255.255.255.240
172.16.4.0	255.255.255.248

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

172.16.3.128	172.16.4.0
172.16.3.64	172.16.2.128
172.16.2.128	172.16.3.64
172.16.3.192	172.16.3.128
172.16.4.0	172.16.3.192

NEW QUESTION 556

- (Topic 4)

A packet from a company s branch office is destined to host 172.31.0.1 at headquarters. The sending router has three possible matches in its routing table for the packet prefixes: 172. 31.0 .0/16, 172.31.0.0/24, and 172.31 0 0/25. How does the router handle the packet?

- A. It sends the traffic via prefix 172.31.0.0/16
- B. It sends the traffic via the default gateway 0.0.0.0/0.
- C. It sends the traffic via prefix 172.31.0.0/24
- D. It sends the traffic via prefix 172.31.0.0/25

Answer: D

NEW QUESTION 559

- (Topic 4)

Which interface or port on the WLC is the default for in-band device administration and communications between the controller and access points?

- A. virtual interface
- B. management interface
- C. console port
- D. service port

Answer: B

NEW QUESTION 561

DRAG DROP - (Topic 4)

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

This type implements changes individually at each device.	Traditional Networking
This type leverages controllers to handle network management.	
Maintenance costs are higher than with other networking options.	Controller-Based Networking
This type provides a centralized view of the network.	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

This type implements changes individually at each device.	Traditional Networking
Maintenance costs are higher than with other networking options.	
This type leverages controllers to handle network management.	Controller-Based Networking
This type provides a centralized view of the network.	

NEW QUESTION 563

- (Topic 4)

How do TCP and UDP fit into a query-response model?

- A. TCP establishes a connection prior to sending data, and UDP sends immediately.
- B. TCP uses error detection for packets, and UDP uses error recovery.
- C. TCP avoids using sequencing, and UDP avoids using acknowledgments.
- D. TCP encourages out-of-order packet delivery, and UDP prevents re-ordering.

Answer: A

NEW QUESTION 568

- (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 569

- (Topic 4)

What is a reason to implement IPv4 private addressing?

- A. Reduce the risk of a network security breach
- B. Comply with PCI regulations
- C. Comply with local law
- D. Reduce the size of the forwarding table on network routers

Answer: D

NEW QUESTION 572

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 577

- (Topic 4)

After a recent security breach and a RADIUS failure, an engineer must secure the console port of each enterprise router with a local username and password. Which configuration must the engineer apply to accomplish this task?

- aaa new-model
line con 0
password plaintextpassword
privilege level 15**
- username localuser secret plaintextpassword
line con 0
login authentication default
privilege level 15**
- username localuser secret plaintextpassword
line con 0
no login local
privilege level 15**
- aaa new-model
aaa authorization exec default local
aaa authentication login default radius
username localuser privilege 15 secret plaintextpassword**

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

Answer: B

NEW QUESTION 579

- (Topic 4)

Which IPv6 address range is suitable for anycast addresses for distributed services such as DHCP or DNS?

- A. FF00:1/12
- B. 2001:db8:0234:ca3e::1/128
- C. 2002:db84:3f37:ca98:be05:8/64
- D. FE80::1/10

Answer: A

NEW QUESTION 582

- (Topic 4)

Refer to the exhibit.

```

C:\>ipconfig /all
Ethernet adapter Ethernet:
    Connection-specific DNS Suffix . :
    Physical Address. . . . . : F8-75-A4-3B-AB-4F
    Link-local IPv6 Address . . . . . : fe80::644a:b01:3e5f:ae6%14(Preferred)
    IPv4 Address. . . . . : 10.2.2.2(Preferred)
    Subnet Mask . . . . . : 255.255.255.192
    Default Gateway . . . . . : 10.2.2.1
    DHCP Server . . . . . : 192.168.1.15
    DNS Servers . . . . . : 8.8.8.8
    NetBIOS over Tcpi. . . . . : Enabled
    
```

A newly configured PC fails to connect to the internet using TCP port 80 to www.cisco.com. Which setting must be modified for the connection to work?

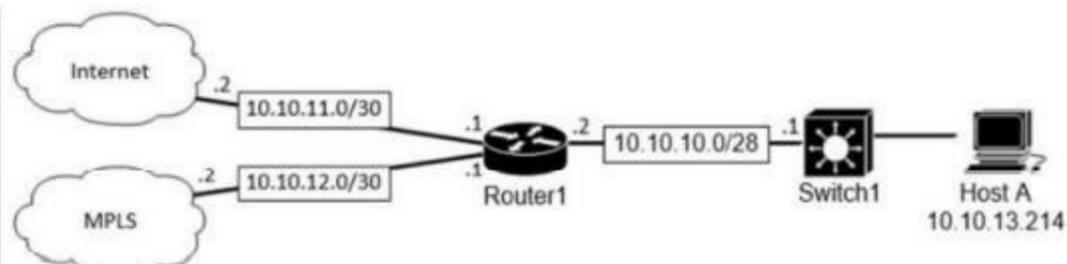
- A. Subnet Mask
- B. DNS Servers
- C. Default Gateway
- D. DHCP Server

Answer: B

NEW QUESTION 585

- (Topic 4)

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, 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
    
```

What is the prefix length for the route that router1 will use to reach host A?

- A. /25
- B. /27
- C. /28
- D. /29

Answer: D

NEW QUESTION 589

- (Topic 4)

Which 802.11 frame type is Association Response?

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

Answer: A

NEW QUESTION 592

- (Topic 4)

A WLC sends alarms about a rogue AP, and the network administrator verifies that the alarms are caused by a legitimate autonomous AP.

- A. Place the AP into manual containment.
- B. Remove the AP from WLC management.
- C. Manually remove the AP from Pending state.
- D. Set the AP Class Type to Friendly.

Answer: B

NEW QUESTION 595

- (Topic 4)

What are two reasons a switch experiences frame flooding? (Choose two.)

- A. A defective patch cable is connected to the switch port
- B. Topology changes are occurring within spanning-tree
- C. An aged MAC (able entry is causing excessive updates
- D. Port-security is configured globally
- E. The forwarding table has overflowed

Answer: AB

NEW QUESTION 596

- (Topic 4)

What is the collapsed layer in collapsed core architectures?

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

Answer: D

NEW QUESTION 601

DRAG DROP - (Topic 4)

Drag and drop the DNS commands from the left onto their effects on the right.

Drag and drop the DNS commands from the left onto their effects on the right.

ip domain-lookup	adds an entry to the host table
ip domain-name	completes the FQDN of the DNS server
ip host switch_1 192.168.0.1	displays address-mapping information
ip name-server	enables host-to-IP-address translation
show hosts	specifies the IP address of the DNS server

- A. Mastered
- B. Not Mastered

Answer: A

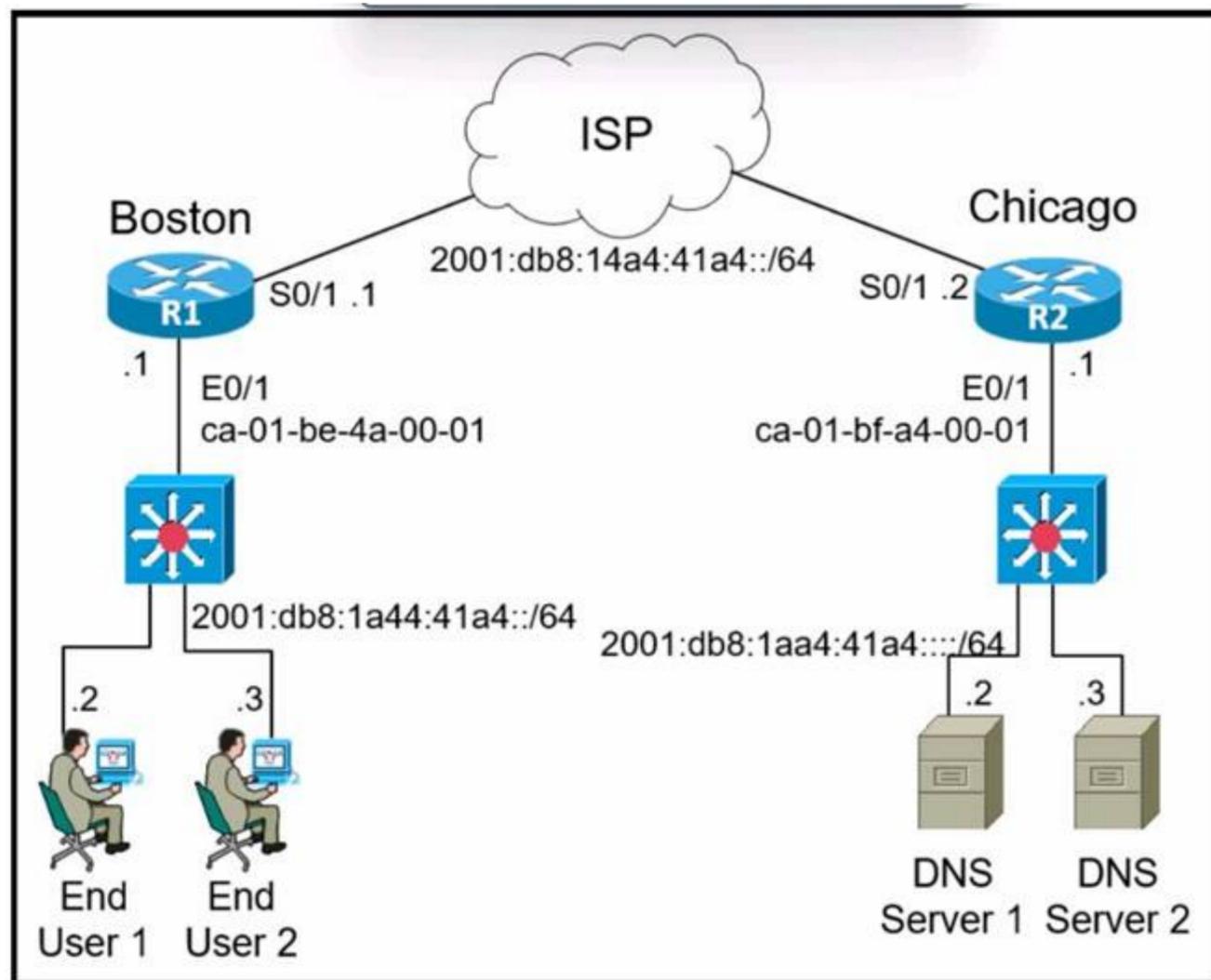
Explanation:

Drag and drop the DNS commands from the left onto their effects on the right.

ip domain-lookup	ip domain-name
ip domain-name	ip domain-lookup
ip host switch_1 192.168.0.1	show hosts
ip name-server	ip host switch_1 192.168.0.1
show hosts	ip name-server

NEW QUESTION 605

FILL IN THE BLANK - (Topic 4)
Refer to the exhibit.



Refer to the exhibit. The IPv6 address for the LAN segment on router R1 must be configured using the EUI-64 format. When configured which ipv6 address is produced by the router?

- A. 2001:db8:1a44:41a4:C801:BEFF:FE4A:1
- B. 2001:db8:1a44:41a4:C081:BFFF:FE4A:1
- C. 2001:db8:1a44:41a4:4562:098F:FE36:1
- D. 2001:db8:1a44:41a4:C800:BAFE:FF00:1

Answer: B

NEW QUESTION 609

- (Topic 4)
What is a benefit for external users who consume public cloud resources?

- A. implemented over a dedicated WAN
- B. located in the same data center as the users
- C. all hosted on physical servers
- D. accessed over the Internet

Answer: D

NEW QUESTION 614

- (Topic 4)

Refer to the exhibit.

```
{
  "Routers": ["R1", "R2", "R3"],
  "Switches": ["SW1", "SW2", "SW3"]
}
```

What is represented by "R1" and "SW1" within the JSON output?

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

Answer: C

NEW QUESTION 618

- (Topic 4)

Which component controls and distributes physical resources for each virtual machine?

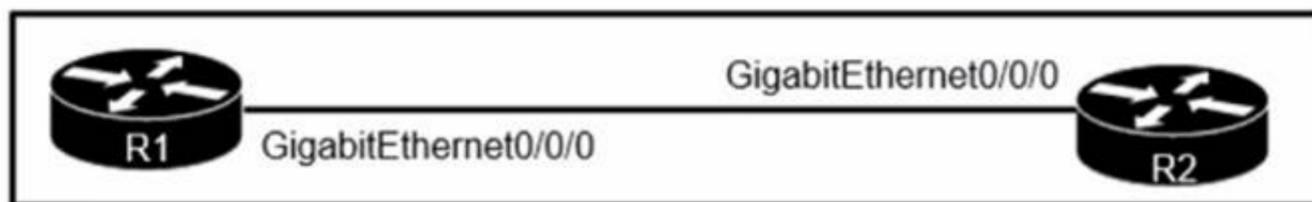
- A. OS
- B. hypervisor
- C. CPU
- D. physical enclosure

Answer: B

NEW QUESTION 621

- (Topic 4)

Refer to the exhibit.



A network engineer must configure the link with these requirements:

- Consume as few IP addresses as possible.
- Leave at least two additional useable IP addresses for future growth. Which set of configurations must be applied?

A)

```
R1(config-if)#ip address 10.10.10.1 255.255.255.252
R2(config-if)#ip address 10.10.10.2 255.255.255.252
```

B)

```
R1(config-if)#ip address 10.10.10.1 255.255.255.248
R2(config-if)#ip address 10.10.10.4 255.255.255.248
```

C)

```
R1(config-if)#ip address 10.10.10.1 255.255.255.0
R2(config-if)#ip address 10.10.10.5 255.255.255.0
```

D)

```
R1(config-if)#ip address 10.10.10.1 255.255.255.240
R2(config-if)#ip address 10.10.10.12 255.255.255.240
```

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

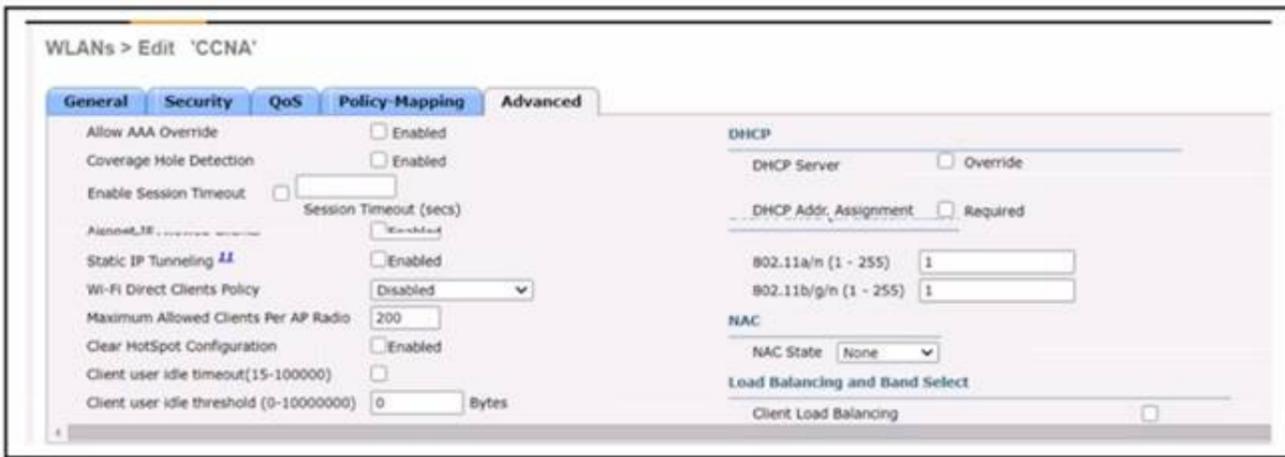
Answer: B

Explanation:

We have to configure the link which will need 2 IP addresses, 1 for each port on each Router. We also need 2 spare IPs for future growth, so overall we need 4 usable IP addresses. If we consider using the /30 (255.255.255.252) mask, it will give us $2^2 (=4)$ i.e., total 4 IPs and 2 usable IPs, which doesn't fulfil the given requirements. So, we can consider using the next /29 (255.255.255.248) mask, which gives us $2^3 (=8)$ i.e., total 8 IP address and 6 usable IP addresses, which perfectly fulfil the given requirements.

NEW QUESTION 626

- (Topic 4)
Refer to the exhibit.



A network engineer configures the CCNA WLAN so that clients must authenticate hourly and to limit the number of simultaneous connections to the WLAN to 10. Which two actions complete this configuration? (Choose two.)

- A. Enable the Enable Session Timeout option and set the value to 3600.
- B. Set the Maximum Allowed Clients value to 10.
- C. Enable the Client Exclusion option and set the value to 3600.
- D. Enable the Wi-Fi Direct Clients Policy option.
- E. Set the Maximum Allowed Clients Per AP Radio value to 10.

Answer: AB

NEW QUESTION 629

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

- enables aggregation of routing prefixes
- provides for one-to-one communication
- provides one-to-many communications
- sends packets to a group address rather than a single address

Global Unicast Address

Multicast

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

- enables aggregation of routing prefixes
- provides for one-to-one communication
- provides one-to-many communications
- sends packets to a group address rather than a single address

Global Unicast Address

Multicast

NEW QUESTION 634

- (Topic 4)
Refer to the exhibit. User traffic originating within site 0 is failing to reach an application hosted on IP address 192.168.0.10. Which is located within site A What is determined by the routing table?

- A. The default gateway for site B is configured incorrectly
- B. The lack of a default route prevents delivery of the traffic
- C. The traffic is blocked by an implicit deny in an ACL on router2
- D. The traffic to 192.168.0.10 requires a static route to be configured in router 1.

Answer: B

NEW QUESTION 638

- (Topic 4)

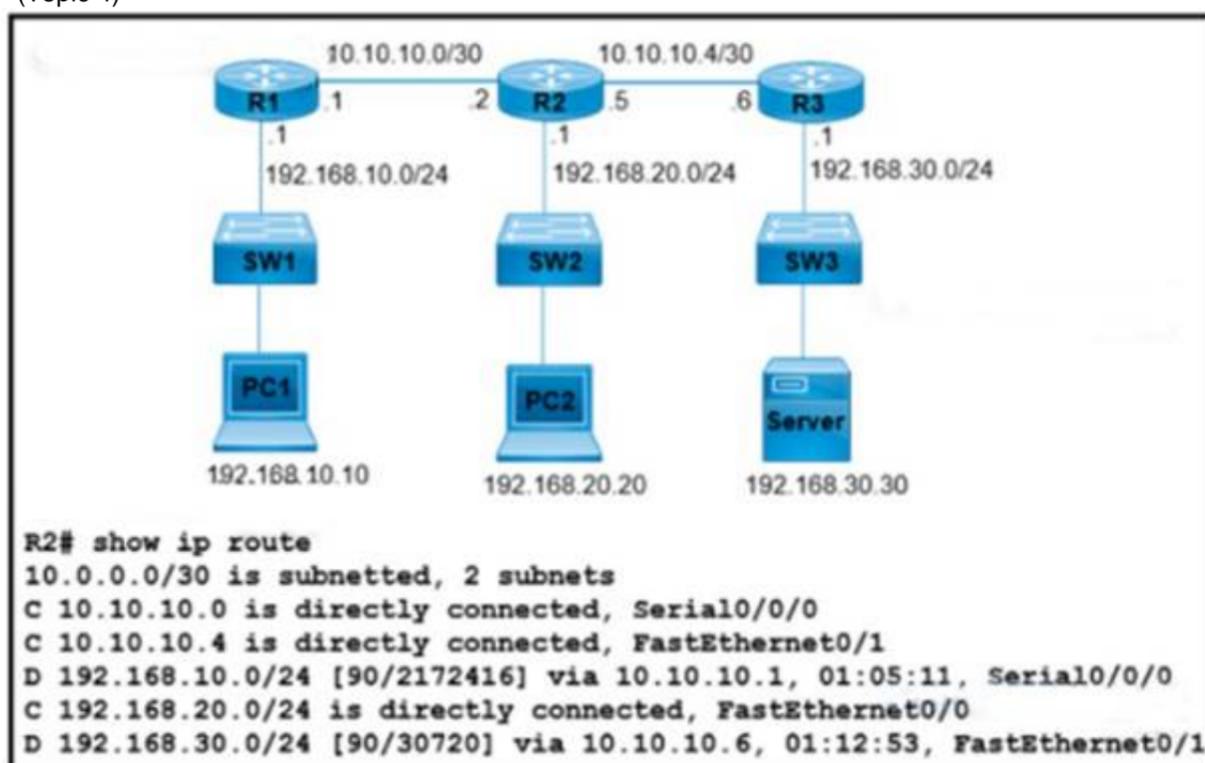
What is the primary purpose of a console port on a Cisco WLC?

- A. In-band management via an asynchronous transport
- B. out-of-band management via an IP transport
- C. in-band management via an IP transport
- D. out-of-band management via an asynchronous transport

Answer: D

NEW QUESTION 643

- (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. 10.10.10.5
- C. 10.10.10.6
- D. 192.168.20.1

Answer: D

NEW QUESTION 646

- (Topic 4)

Which two capabilities of Cisco DNA Center make it more extensible as compared to traditional campus device management? (Choose two.)

- A. REST APIs that allow for external applications to interact natively
- B. adapters that support all families of Cisco IOS software
- C. SDKs that support interaction with third-party network equipment
- D. customized versions for small, medium, and large enterprises
- E. modular design that is upgradable as needed

Answer: AC

NEW QUESTION 650

- (Topic 4)

When an access point is seeking to join wireless LAN controller, which message is sent to the AP- Manager interface?

- A. Discovery response
- B. DHCP request
- C. DHCP discover
- D. Discovery request

Answer: D

NEW QUESTION 652

- (Topic 4)

Which benefit does Cisco ONA Center provide over traditional campus management?

- A. Cisco DNA Center leverages SNMPv3 for encrypted management, and traditional campus management uses SNMPv2.
- B. Cisco DNA Center automates HTTPS for secure web access, and traditional campus management uses HTTP.
- C. Cisco DNA Center leverages APIs, and traditional campus management requires manual data gathering.
- D. Cisco DNA Center automates SSH access for encrypted entry, and SSH is absent from traditional campus management.

Answer: B

NEW QUESTION 656

- (Topic 4)

What is a benefit of using private IPv4 addressing?

- A. Multiple companies can use the same addresses without conflicts.
- B. Direct connectivity is provided to internal hosts from outside an enterprise network.
- C. Communication to the internet is reachable without the use of NAT.
- D. All external hosts are provided with secure communication to the Internet.

Answer: A

NEW QUESTION 661

- (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. 10.10.10.1
- B. 10.10.10.11
- C. 10.10.10.12
- D. 10.10.10.14

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 662

DRAG DROP - (Topic 4)

Drag and drop the IPv6 address details from the left onto the corresponding types on the right.

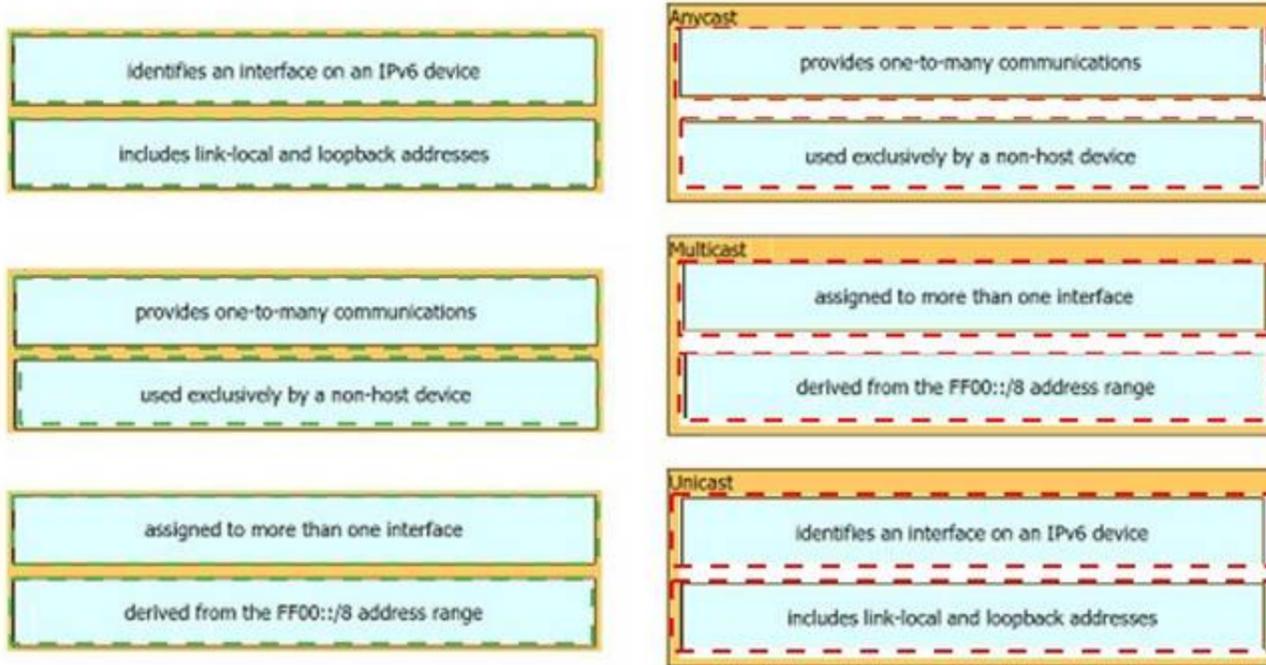
identifies an interface on an IPv6 device	Anycast
includes link-local and loopback addresses	
provides one-to-many communications	Multicast
used exclusively by a non-host device	
assigned to more than one interface	Unicast
derived from the FF00::/8 address range	

A. Mastered

B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 665

.....

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