

200-301 Dumps

Cisco Certified Network Associate

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NEW QUESTION 1

- (Topic 3)

An engineer is configuring remote access to a router from IP subnet 10.139.58.0/28. The domain name, crypto keys, and SSH have been configured. Which configuration enables the traffic on the destination router?

A)

```
interface FastEthernet0/0
 ip address 10.122.49.1 255.255.255.240
 access-group 120 in
```

```
ip access-list extended 120
 permit tcp 10.139.58.0 255.255.255.248 any eq 22
```

B)

```
interface FastEthernet0/0
 ip address 10.122.49.1 255.255.255.252
 ip access-group 110 in
```

```
ip access-list extended 110
 permit tcp 10.139.58.0 0.0.0.15 host 10.122.49.1 eq 22
```

C)

```
interface FastEthernet0/0
 ip address 10.122.49.1 255.255.255.248
 ip access-group 10 in
```

```
ip access-list standard 10
 permit udp 10.139.58.0 0.0.0.7 host 10.122.49.1 eq 22
```

D)

```
interface FastEthernet0/0
 ip address 10.122.49.1 255.255.255.252
 ip access-group 105 in
```

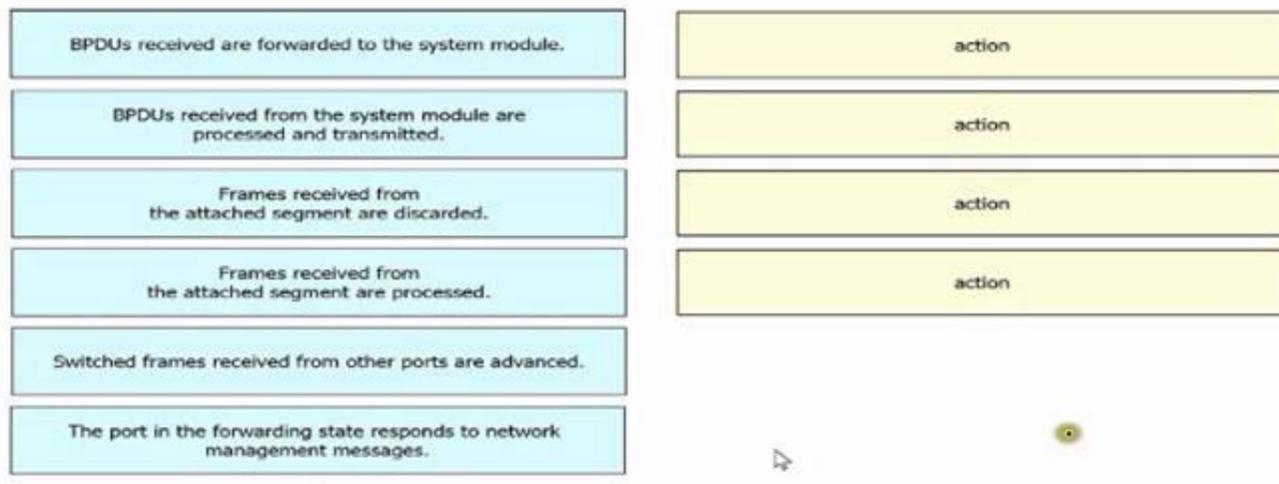
```
ip access-list standard 105
 permit tcp 10.139.58.0 0.0.0.7 eq 22 host 10.122.49.1
```

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

Answer: B**NEW QUESTION 2**

DRAG DROP - (Topic 3)

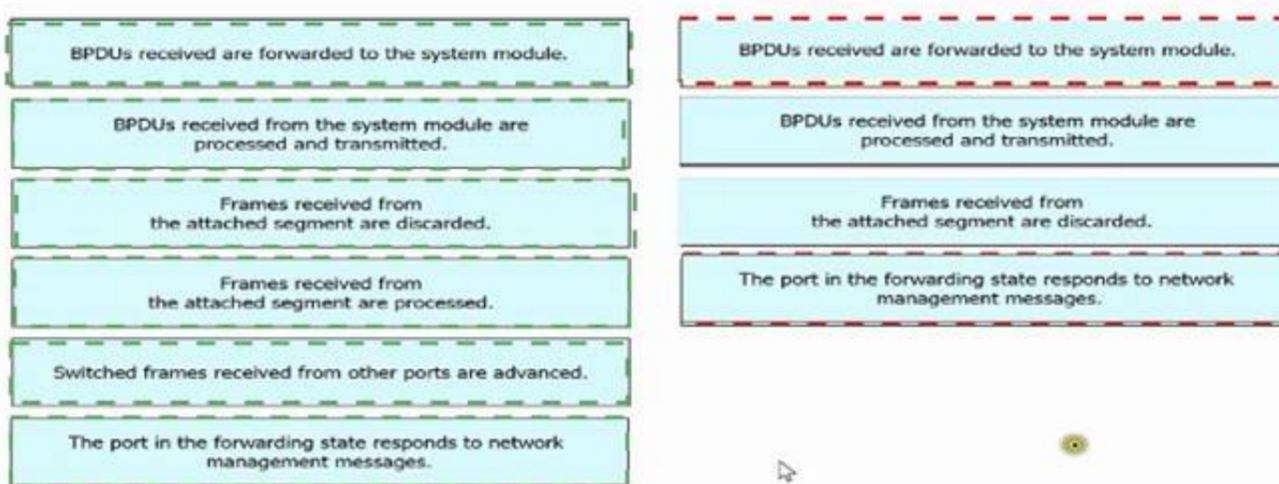
Drag and drop the Rapid PVST+ forwarding slate actions from the left to the right. Not all actions are used.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 3

- (Topic 3)

Refer to the exhibit.

```

R1# show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, * - candidate
default
       U - per-user static route, o - ODR
Gateway of last resort is not set
C 192.168.3.5 is directly connected, Loopback0
  10.0.0.0/8 is variably subnetted, 4 subnets, 2 masks
O   10.0.1.3/32 [110/100] via 192.168.0.40, 00:39:08, Serial0
C   10.0.1.0/24 is directly connected, Serial0
O   10.0.1.190/32 [110/5] via 192.168.0.35, 00:39:08, Serial0
O   10.0.1.0/24 [110/10] via 192.168.0.4, 00:39:08, Gigabit Ethernet 0/0
D   10.0.1.0/28 [90/10] via 192.168.0.7, 00:39:08, Gigabit Ethernet 0/0
    
```

Traffic sourced from the loopback0 Interface is trying to connect via ssh to the host at 10.0.1.15. What is the next hop to the destination address?

- A. 192.168.0.7
- B. 192.168.0.4
- C. 192.168.0.40
- D. 192.168.3.5

Answer: B

NEW QUESTION 4

- (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 5

- (Topic 3)

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

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

Answer: B

NEW QUESTION 6

- (Topic 3)

Refer to the exhibit.

```
A# show ip ospf neighbor
Neighbor ID Pri State Dead Time Address Interface
172.1.1.1 1 EXCHANGE/ - 00:00:36 172.16.32.1 Serial0.1
```

An engineer assumes a configuration task from a peer Router A must establish an OSPF neighbor relationship with neighbor 172.1.1.1 The output displays the status of the adjacency after 2 hours. What is the next step in the configuration process for the routers to establish an adjacency?

- A. Configure router A to use the same MTU size as router B.
- B. Set the router B OSPF ID to a nonhost address.
- C. Configure a point-to-point link between router A and router B.
- D. Set the router B OSPF ID to the same value as its IP address

Answer: B

NEW QUESTION 7

- (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)

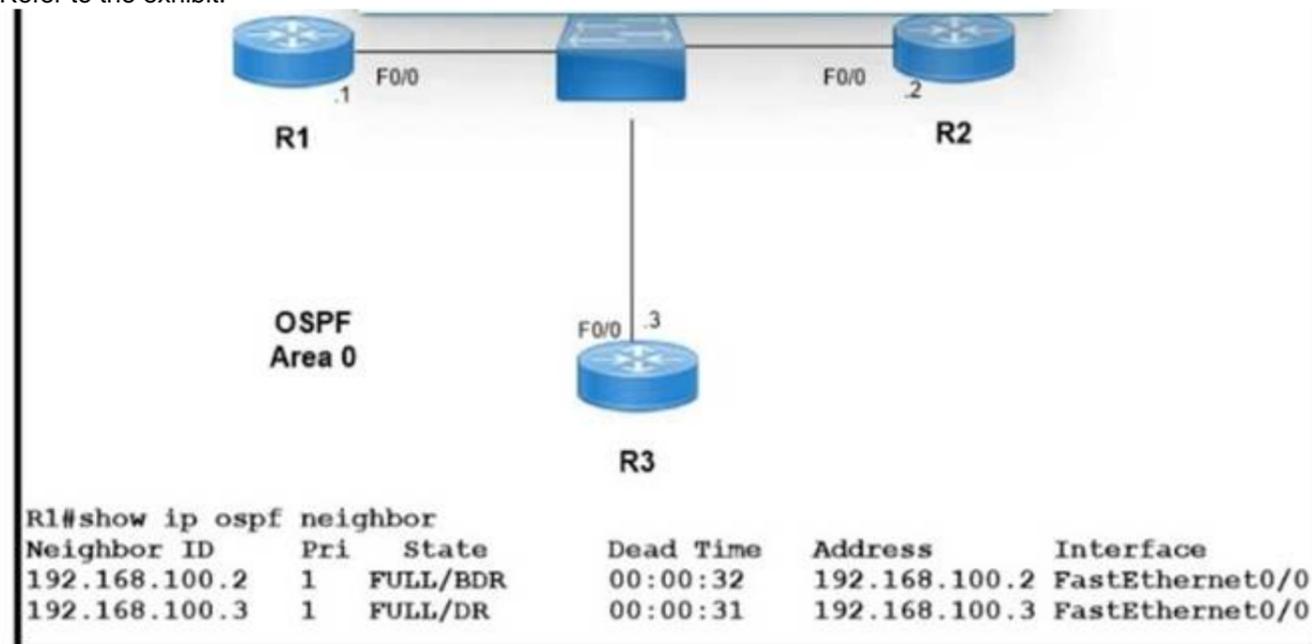
- A. interface vlan 123 ip address 10.70.159.1 255.255.254.0
- B. interface vlan 114 ip address 10.70.148.1 255.255.254.0
- C. interface vlan 472 ip address 10.70.133.17 255.255.255.192
- D. interface vlan 300 ip address 10.70.147.17 255.255.255.224
- E. interface vlan 155 ip address 10.70.155.65 255.255.255.224

Answer: BD

NEW QUESTION 8

- (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
```

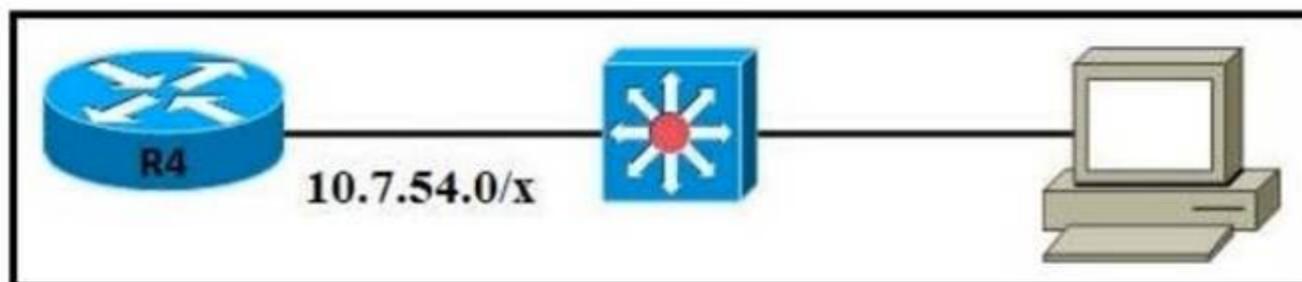
- A. Option A
- B. Option B
- C. Option C
- D. Option D
- E. Option E

Answer: BC

NEW QUESTION 9

- (Topic 3)

Refer to the exhibit.



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

A)

```
Subnet: 10.7.54.0
Subnet mask: 255.255.254.0
Broadcast address: 10.7.54.255
Usable IP address range: 10.7.54.1 - 10.7.55.254
```

B)

```
Subnet: 10.7.54.0
Subnet mask: 255.255.254.0
Broadcast address: 10.7.55.255
Usable IP address range: 10.7.54.1 - 10.7.55.254
```

C)

```
Subnet: 10.7.54.0
Subnet mask: 255.255.128.0
Broadcast address: 10.7.55.255
Usable IP address range: 10.7.54.1 - 10.7.55.254
```

D)

```
Subnet: 10.7.54.0
Subnet mask: 255.255.255.0
Broadcast address: 10.7.54.255
Usable IP address range: 10.7.54.1 - 10.7.55.254
```

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

Answer: B

NEW QUESTION 10

- (Topic 3)

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

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

Answer: D

NEW QUESTION 10

- (Topic 3)

Refer to the exhibit.

```

R1# show ip route | begin gateway
Gateway of last resort is 209.165.200.254 to network 0.0.0.0
S* 0.0.0.0/0 [1/0] via 209.165.200.254, Serial0/0/1
    is directly connected, Serial0/0/1
C   172.16.0.0/16 is variably subnetted, 3 subnets, 2 masks
L   172.16.1.0/24 is directly connected, FastEthernet0/0
L   172.16.1.1/32 is directly connected, FastEthernet0/0
R   172.16.2.0/24 [120/2] via 207.165.200.250, 00:00:25, Serial0/0/0
O   192.168.1.0/24 [110/4437] via 207.165.200.254, 00:00:17, Serial0/0/1
D   192.168.2.0/24 [90/84437] via 207.165.200.254, 00:00:15, Serial0/0/1
    207.165.200.0/24 is variably subnetted, 5 subnets, 2 masks
S   207.165.200.244/30 [1/1] via 207.165.200.254, Serial0/0/1
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
    
```

Which network prefix was learned via EIGRP?

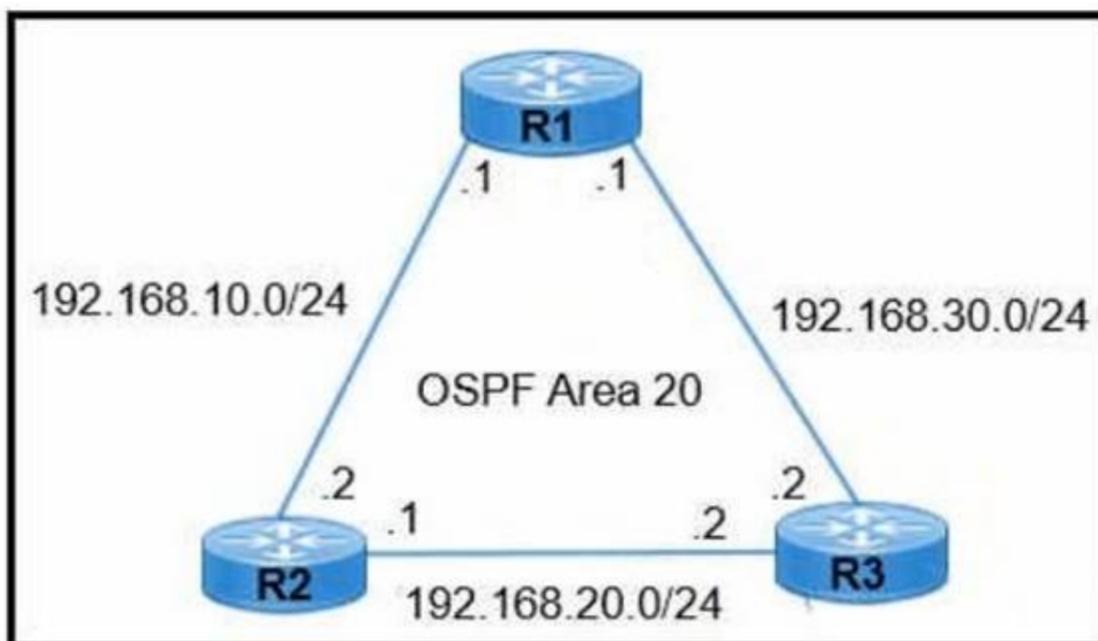
- A. 172.16.0.0/16
- B. 192.168.2.0/24
- C. 207.165.200.0/24
- D. 192.168.1.0/24

Answer: B

NEW QUESTION 12

- (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?

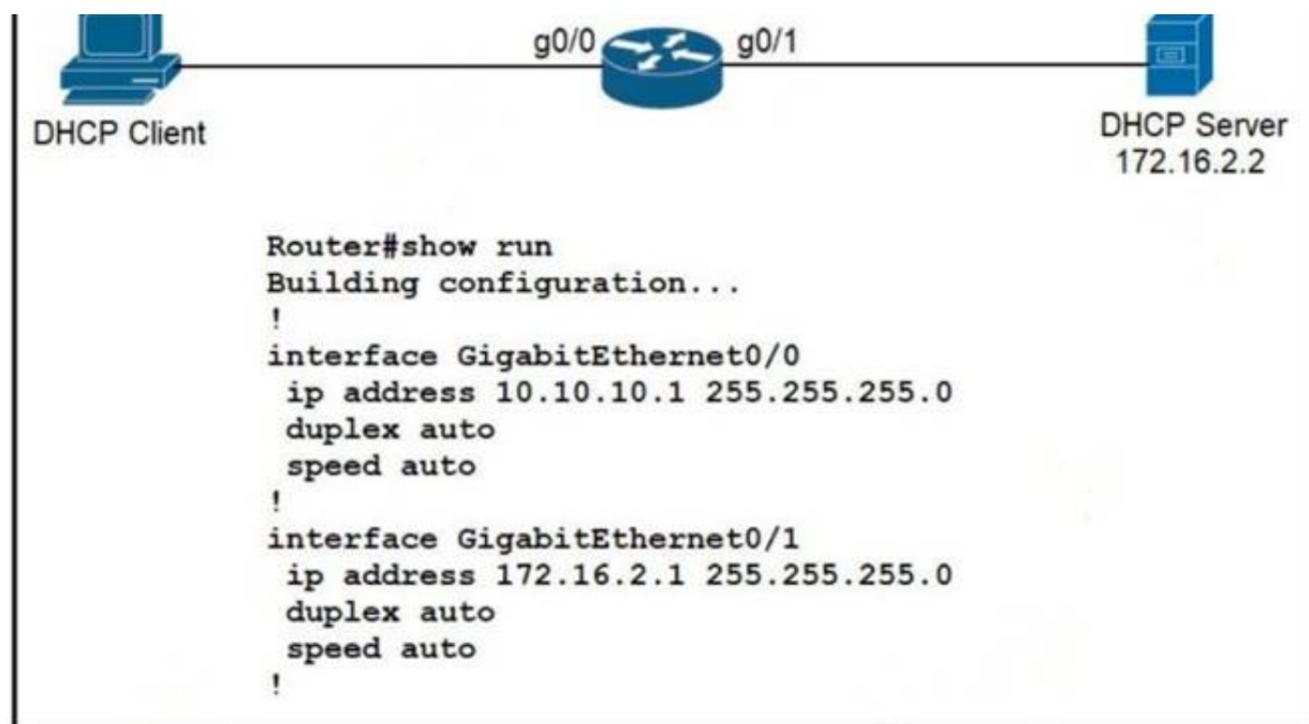
- A. R1(config)#ip route 192.168.20.0 255.255.0.0 192.168.30.2
- B. R1(config)#ip route 192.168.20.0 255.255.255.0 192.168.30.2 90
- C. R1(config)#ip route 192.168.20.0 255.255.255.0 192.168.30.2 111
- D. R1(config)#ip route 192.168.20.0 255.255.255.0 192.168.30.2

Answer: C

NEW QUESTION 14

- (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 16

- (Topic 3)

An engineer must configure R1 for a new user account. The account must meet these requirements:

- * It must be configured in the local database.
- * The username is engineer.
- * It must use the strongest password configurable. Which command must the engineer configure on the router?

- A. R1 (config)# username engineer2 algorithm-type scrypt secret test2021
- B. R1(config)# username engineer2 secret 5 .password S1\$b1Ju\$kZbBS1Pyh4QzwXyZ
- C. R1(config)# username engineer2 privilege 1 password 7 test2021
- D. R1(config)# username englneer2 secret 4 S1Sb1Ju\$kZbBS1Pyh4QzwXyZ

Answer: B

NEW QUESTION 21

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

NEW QUESTION 23

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 0060.3EED.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

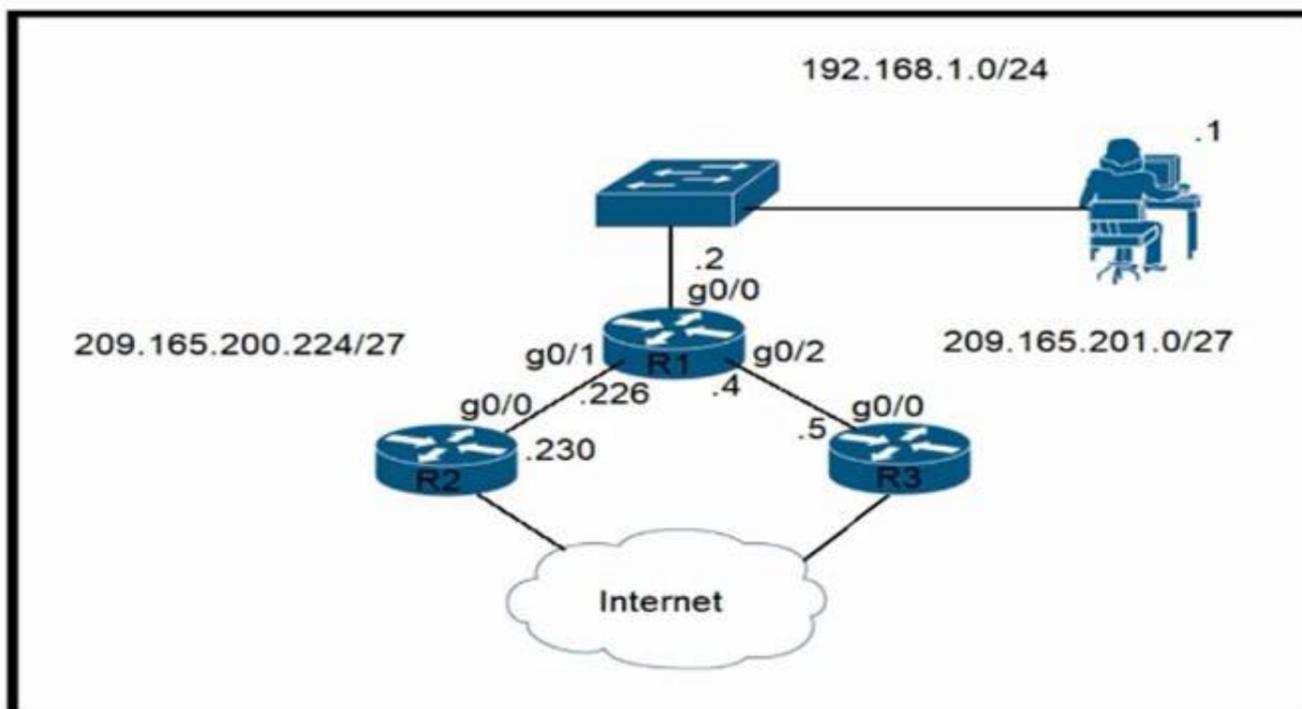
Explanation:

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

NEW QUESTION 25

- (Topic 3)

Refer to the exhibit.



Router R1 currently is configured to use R3 as the primary route to the Internet, and the route uses the default administrative distance settings. A network engineer must configure R1 so that it uses R2 as a backup, but only if R3 goes down. Which command must the engineer configure on R1 so that it correctly uses R2 as a backup route, without changing the administrative distance configuration on the link to R3?

- A. ip route 0.0.0.0 0.0.0.0 g0/1 1
- B. ip route 0.0.0.0 0.0.0.0 209.165.201.5 10
- C. ip route 0.0.0.0 0.0.0.0 209.165.200.226 1
- D. ip route 0,0.0.0 0.0.0.0 g0/1 6

Answer: C

NEW QUESTION 26

- (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 29

- (Topic 2)

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

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

Answer: A

NEW QUESTION 33

- (Topic 2)

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

Which two misconfigurations cause this behavior? (Choose two)

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

Answer: BC

NEW QUESTION 35

- (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 40

- (Topic 2)

An engineer is configuring NAT to translate the source subnet of 10.10.0.0/24 to any of three addresses 192.168.30.1, 192.168.3.2, 192.168.3.3 Which configuration should be used?

enable
configure terminal
ip nat pool mypool 192.168.3.1 192.168.3.3 prefix-length 30
route-map permit 10.10.0.0 255.255.255.0
ip nat outside destination list 1 pool mypool
interface g1/1
ip nat inside
interface g1/2
ip nat outside

enable
configure terminal
ip nat pool mypool 192.168.3.1 192.168.3.3 prefix-length 30
access-list 1 permit 10.10.0.0 0.0.0.255
ip nat inside source list 1 pool mypool
interface g1/1
ip nat inside
interface g1/2
ip nat outside

- enable
 configure terminal
 ip nat pool mypool 192.168.3.1 192.168.3.3 prefix-length 30
 access-list 1 permit 10.10.0.0 0.0.0.255
 ip nat outside destination list 1 pool mypool
 interface g1/1
 ip nat inside
 interface g1/2
 ip nat outside

- enable
 configure terminal
 ip nat pool mypool 192.168.3.1 192.168.3.3 prefix-length 30
 access-list 1 permit 10.10.0.0 0.0.0.254
 ip nat inside source list 1 pool mypool
 interface g1/1
 ip nat inside
 interface g1/2
 ip nat outside

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

Answer: C

NEW QUESTION 42

DRAG DROP - (Topic 2)

Drag and drop the Cisco Wireless LAN Controller security settings from the left onto the correct security mechanism categories on the right.

web policy	Layer 2 Security Mechanisms
Passthrough	
WPA+WPA2	Layer 3 Security Mechanisms (for WLAN)
802.1X	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

web policy	Layer 2 Security Mechanisms
Passthrough	
WPA+WPA2	Layer 3 Security Mechanisms (for WLAN)
802.1X	

802.1X	Layer 2 Security Mechanisms
WPA+WPA2	
web policy	Layer 3 Security Mechanisms (for WLAN)
Passthrough	

NEW QUESTION 45

- (Topic 2)

Why does a switch flood a frame to all ports?

- A. The frame has zero destination MAC addresses.
- B. The source MAC address of the frame is unknown
- C. The source and destination MAC addresses of the frame are the same
- D. The destination MAC address of the frame is unknown.

Answer: B

NEW QUESTION 46

- (Topic 2)

A packet is destined for 10.10.1.22. Which static route does the router choose to forward the packet?

- A. ip route 10.10.1.0 255.255.255.240 10.10.255.1
- B. ip route 10.10.1.16 255.255.255.252 10.10.255.1
- C. ip route 10.10.1.20 255.255.255.252 10.10.255.1
- D. ip route 10.10.1.20 255.255.255.254 10.10.255.1

Answer: C

NEW QUESTION 47

- (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
      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 51

- (Topic 2)

If a switch port receives a new frame while it is actively transmitting a previous frame, how does it process the frames?

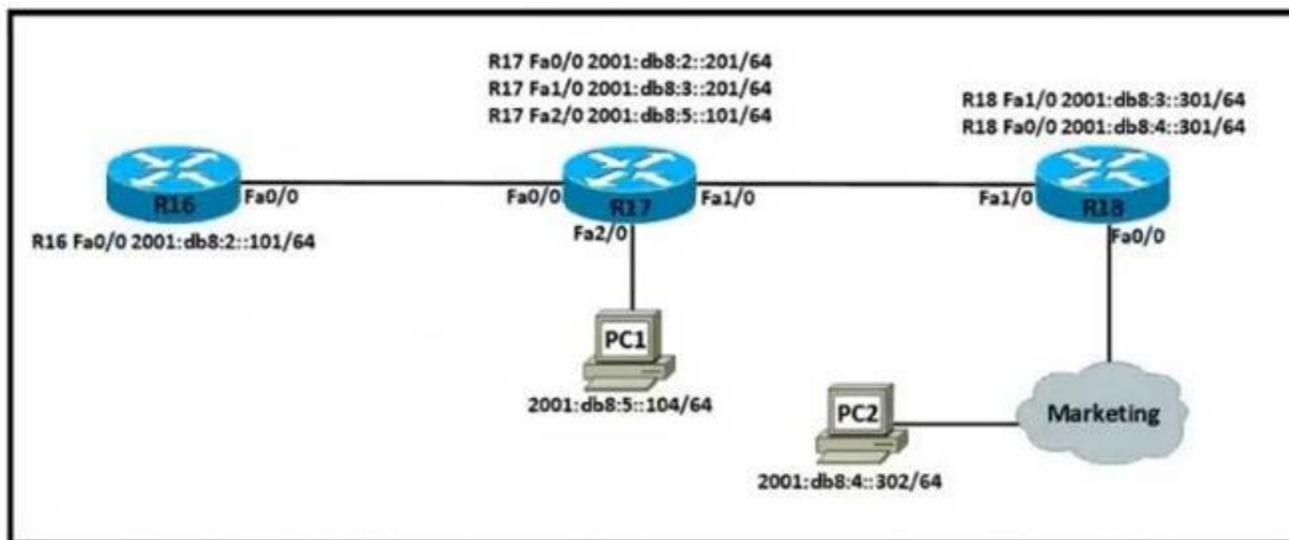
- A. The new frame is delivered first, the previous frame is dropped, and a retransmission request is sent.
- B. The previous frame is delivered, the new frame is dropped, and a retransmission request is sent.
- C. The new frame is placed in a queue for transmission after the previous frame.
- D. The two frames are processed and delivered at the same time.

Answer: B

NEW QUESTION 54

- (Topic 2)

Refer to the exhibit.



Which IPv6 configuration is required for R17 to successfully ping the WAN interface on R18?

A)

```
R17#  
!  
no ip domain lookup  
ip cef  
!  
interface FastEthernet0/0  
no ip address  
duplex auto  
speed auto  
ipv6 address 2001:DB8:3::201/64  
!  
interface FastEthernet1/0  
no ip address  
duplex auto  
speed auto  
ipv6 address 2001:DB8:2::201/64  
!  
no cdp log mismatch duplex  
ipv6 route 2001:DB8:4::/64 2001:DB8:5::101
```

B)

```
R17#  
!  
no ip domain lookup  
ip cef  
ipv6 unicast-routing  
!  
interface FastEthernet0/0  
no ip address  
duplex auto  
speed auto  
ipv6 address 2001:DB8:2::201/64  
!  
interface FastEthernet1/0  
no ip address  
duplex auto  
speed auto  
ipv6 address 2001:DB8:3::201/64  
!  
no cdp log mismatch duplex  
ipv6 route 2001:DB8:4::/64 2001:DB8:3::301
```

C)

```
R17#  
!  
no ip domain lookup  
ip cef  
ipv6 cef  
!  
interface FastEthernet0/0  
no ip address  
duplex auto  
speed auto  
ipv6 address 2001:DB8:2::201/64  
!  
interface FastEthernet1/0  
no ip address  
duplex auto  
speed auto  
ipv6 address 2001:DB8:3::201/64  
!  
no cdp log mismatch duplex  
ipv6 route 2001:DB8:4::/64 2001:DB8:4::302
```

D)

```

R17#
!
no ip domain lookup
ip cef
ipv6 unicast-routing
!
interface FastEthernet0/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:2::201/64
!
interface FastEthernet1/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:3::201/64
!
no cdp log mismatch duplex
ipv6 route 2001:DB8:4::/64 2001:DB8:2::201

```

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

Answer: B

Explanation:

ipv6 unicast-routing statement included (IPv6 is enabled on the router). Compared to the exhibit, Fa0/0 and Fa0/1 have correct configurations. The route to subnet 2001:db8:4::/64 points to R18's Fa1/0 (correct next-hop).

NEW QUESTION 57

- (Topic 2)

A user configured OSPF in a single area between two routers A serial interface connecting R1 and R2 is running encapsulation PPP By default which OSPF network type is seen on this interface when the user types show ip ospf interface on R1 or R2?

- A. port-to-multipoint
- B. broadcast
- C. point-to-point
- D. nonbroadcast

Answer: C

Explanation:

The default OSPF network type for HDLC and PPP on Serial link is point-to-point (while the default OSPF network type for Ethernet link is Broadcast).

NEW QUESTION 61

- (Topic 2)

An engineer must configure an OSPF neighbor relationship between router R1 and R3 The authentication configuration has been configured and the connecting interfaces are in the same 192.168 1.0/30 subnet. What are the next two steps to complete the configuration? (Choose two.)

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

Answer: AE

NEW QUESTION 65

- (Topic 2)

When a WLAN with WPA2 PSK is configured in the Wireless LAN Controller GUI which format is supported?

- A. Unicode
- B. base64
- C. decimal
- D. ASCII

Answer: D

NEW QUESTION 66

- (Topic 2)

Refer to the exhibit.

```

SiteA#show interface TenGigabitEthernet0/1/0
TenGigabitEthernet0/1/0 is up, line protocol is up
Hardware is BUILT-IN-EPA-8x10G, address is 780c.f02a.db91 (bia 780a.f02b.db91)
Description: Connection to SiteB
Internet address is 10.10.10.1/30
MTU 8146 bytes, BW 10000000 Kbit/sec, DLY 10 usec,
  reliability 166/255, txload 1/255, rxload 1/255
Full Duplex, 10000Mbps, link type is force-up, media type is SFP-LR
5 minute input rate 264797000 bits/sec, 26672 packets/sec
5 minute output rate 122464000 bits/sec, 15724 packets/sec

SiteB#show interface TenGigabitEthernet0/1/0
TenGigabitEthernet0/1/0 is up, line protocol is up
Hardware is BUILT-IN-EPA-8x10G, address is 780c.f02c.db26 (bia 780c.f02c.db26)
Description: Connection to SiteA
Internet address is 10.10.10.2/30
MTU 8146 bytes, BW 10000000 Kbit/sec, DLY 10 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Full Duplex, 10000Mbps, link type is force-up, media type is SFP-LR
5 minute input rate 122464000 bits/sec, 15724 packets/sec
5 minute output rate 264797000 bits/sec, 26672 packets/sec
    
```

Shortly after SiteA was connected to SiteB over a new single-mode fiber path users at SiteA report intermittent connectivity issues with applications hosted at SiteB. What is the cause of the intermittent connectivity issue?

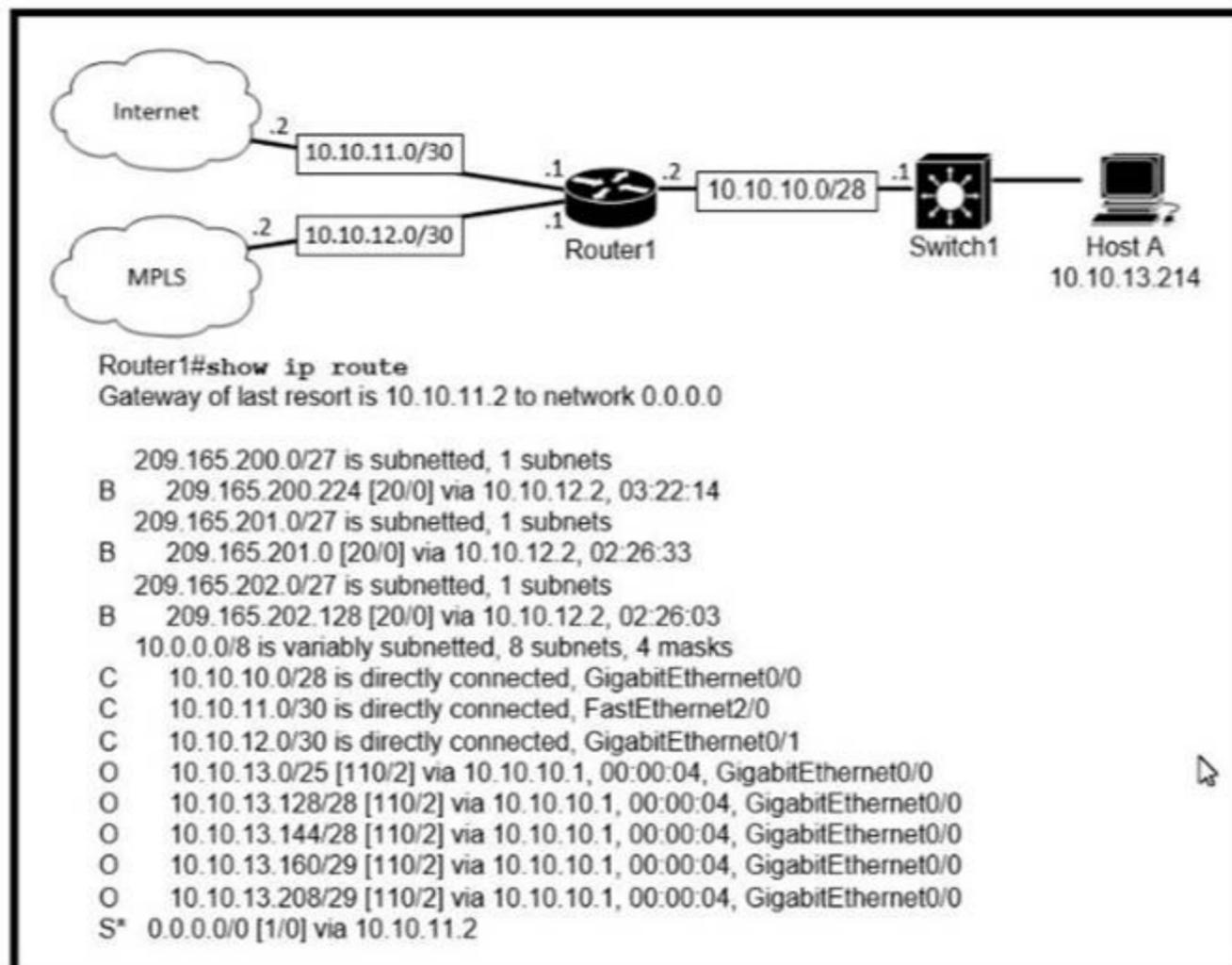
- A. Interface errors are incrementing
- B. An incorrect SFP media type was used at SiteA
- C. High usage is causing high latency
- D. The sites were connected with the wrong cable type

Answer: A

NEW QUESTION 71

- (Topic 2)

Refer to the exhibit.



Which prefix does Router 1 use for traffic to Host A?

- A. 10.10.10.0/28
- B. 10.10.13.0/25
- C. 10.10.13.144/28
- D. 10.10.13.208/29

Answer: D

Explanation:

Host A address fall within the address range. However, if more than one route to the same subnet exist (router will use the longest stick match, which match more specific route to the subnet). If there are route 10.10.13.192/26 and 10.10.13.208/29, the router will forward the packet to /29 rather than /28.

NEW QUESTION 76

- (Topic 2)

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

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

Answer: D

Explanation:

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

NEW QUESTION 79

DRAG DROP - (Topic 2)

Drag and drop to the characteristics of networking from the left onto the correct 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 white list security model	
uses black list security model	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

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

NEW QUESTION 84

- (Topic 2)

Which statement about Link Aggregation when implemented on a Cisco Wireless LAN Controller is true?

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

Answer: D

Explanation:

Reference: https://www.cisco.com/c/en/us/td/docs/wireless/controller/8-2/config-guide/b_cg82/b_cg82_chapter_010101011.html

NEW QUESTION 85

- (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 90

- (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 95

DRAG DROP - (Topic 2)
Refer to the exhibit.

```
[root@HostTest ~]# ip route
default via 192.168.1.193 dev eth1 proto static
192.168.1.0/26 dev eth1 proto kernel scope link src 192.168.1.200 metric 1

[root@HostTest ~]# ip addr show eth1
eth1: mtu 1500 qdisc pfifo_fast qlen 1000
link/ether 00:0c:22:83:79:a3 brd ff:ff:ff:ff:ff:ff
inet 192.168.1.200/26 brd 192.168.1.255 scope global eth1
inet6 fe80::20c:29ff:fe89:79b3/64 scope link
valid_lft forever preferred_lft forever
```

Drag and drop the networking parameters from the left onto the correct values on the right.

default gateway	00:0C:22
host IP address	00:0C:22:83:79:A3
NIC MAC address	192.168.1.193
NIC vendor OUI	192.168.1.200
subnet mask	255.255.255.192

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

NIC vendor OUI → 00:0C:22
NIC MAC address → 00:0C:22:83:79:A3
default gateway → 192.168.1.193
host IP address → 192.168.1.200
subnet mask → 255.255.255.192

The "ip route" and "ip addr show eth1" are Linux commands.
+ "ip route": display the routing table
+ "ip addr show eth1": get depth information (only on eth1 interface) about your network interfaces like IP Address, MAC Address information

NEW QUESTION 99

- (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 103

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

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

Answer: DE

NEW QUESTION 107

- (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 discards all ingress ARP traffic with invalid MAC-to-IP address bindings.

Answer: D

NEW QUESTION 112

- (Topic 2)

What is a characteristic of private IPv4 addressing?

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

Answer: D

NEW QUESTION 116

- (Topic 2)

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

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

Answer: D

NEW QUESTION 119

- (Topic 2)

A network administrator must to configure SSH for remote access to router R1. The requirement is to use a public and private key pair to encrypt management traffic to and from the connecting client.

Which configuration, when applied, meets the requirements?

```
R1#enable
R1#configure terminal
R1(config)#ip domain-name cisco.com
R1(config)#crypto key generate ec keysize 2048
```

```
R1#enable
R1#configure terminal
R1(config)#ip domain-name cisco.com
R1(config)#crypto key generate rsa modulus 1024
```

```
R1#enable
R1#configure terminal
R1(config)#ip domain-name cisco.com
R1(config)#crypto key generate ec keysize 1024
```

```
R1#enable
R1#configure terminal
R1(config)#ip domain-name cisco.com
R1(config)#crypto key encrypt rsa name myKey
```

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

D. Option D

Answer: C

NEW QUESTION 124

- (Topic 2)

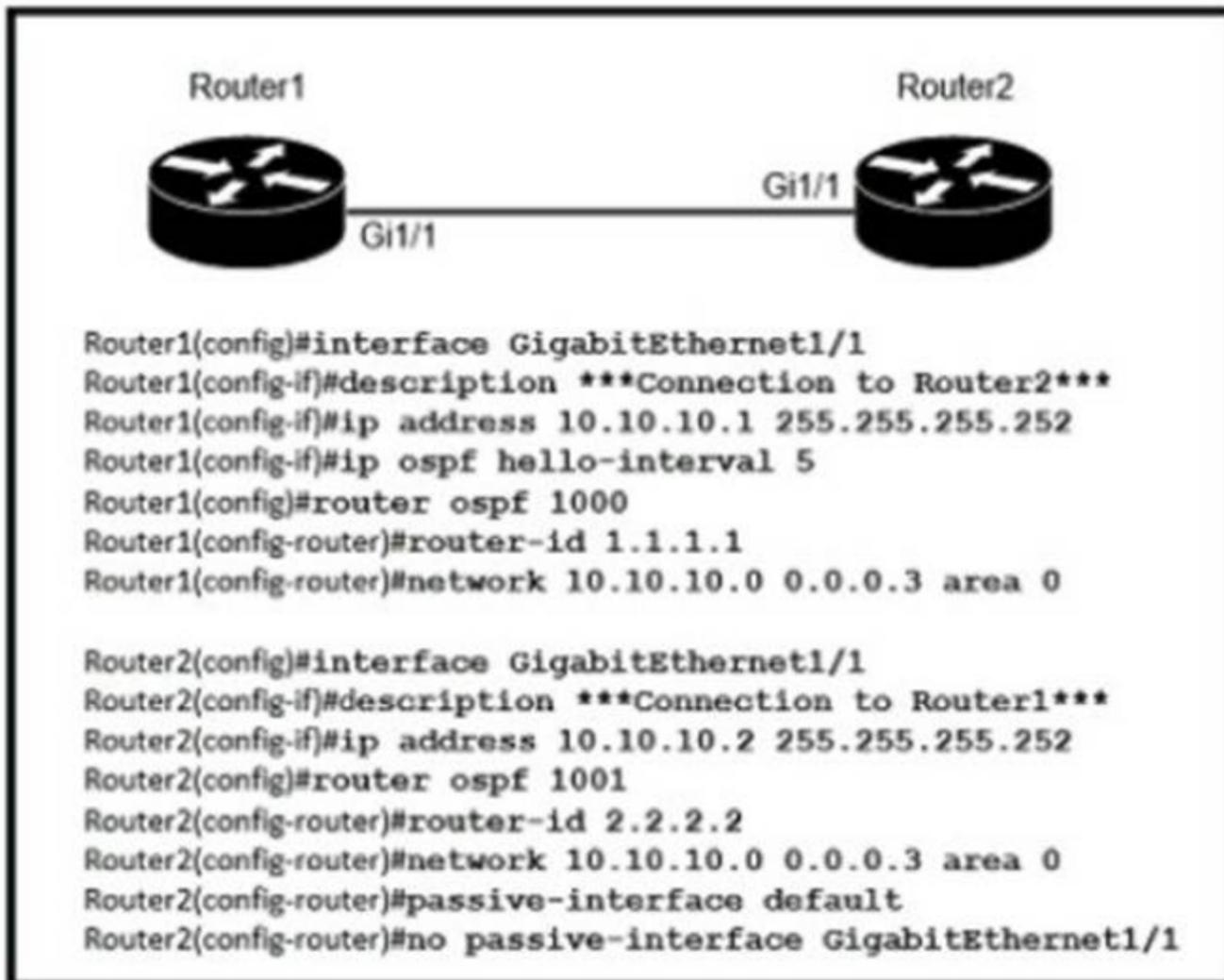
Which mode must be set for APs to communicate to a Wireless LAN Controller using the Control and Provisioning of Wireless Access Points (CAPWAP) protocol?

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

Answer: D

NEW QUESTION 125

- (Topic 2)



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

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

Answer: B

NEW QUESTION 127

- (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 129

- (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 130

- (Topic 2)

When a client and server are not on the same physical network, which device is used to forward requests and replies between client and server for DHCP?

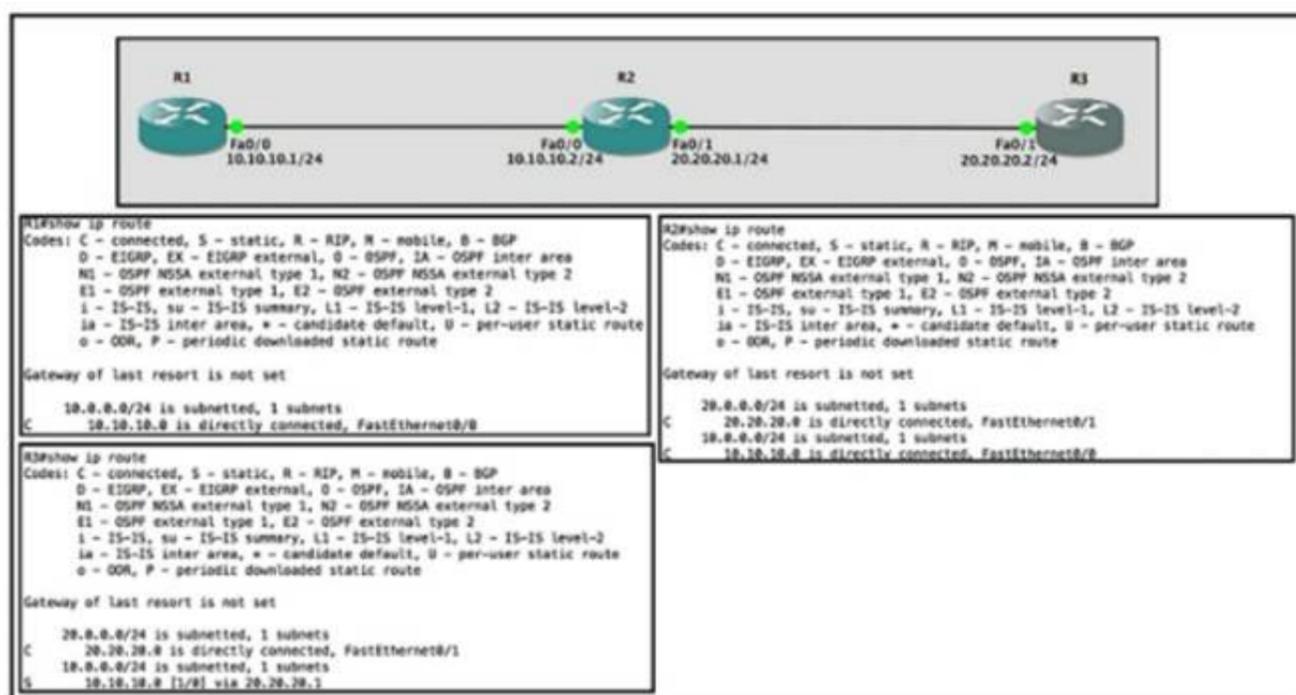
- A. DHCP relay agent
- B. DHCP server
- C. DHCPDISCOVER
- D. DHCPOFFER

Answer: A

NEW QUESTION 134

- (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 138

- (Topic 2)

An administrator must secure the WLC from receiving spoofed association requests. Which steps must be taken to configure the WLC to restrict the requests and force the user to wait 10 ms to retry an association request?

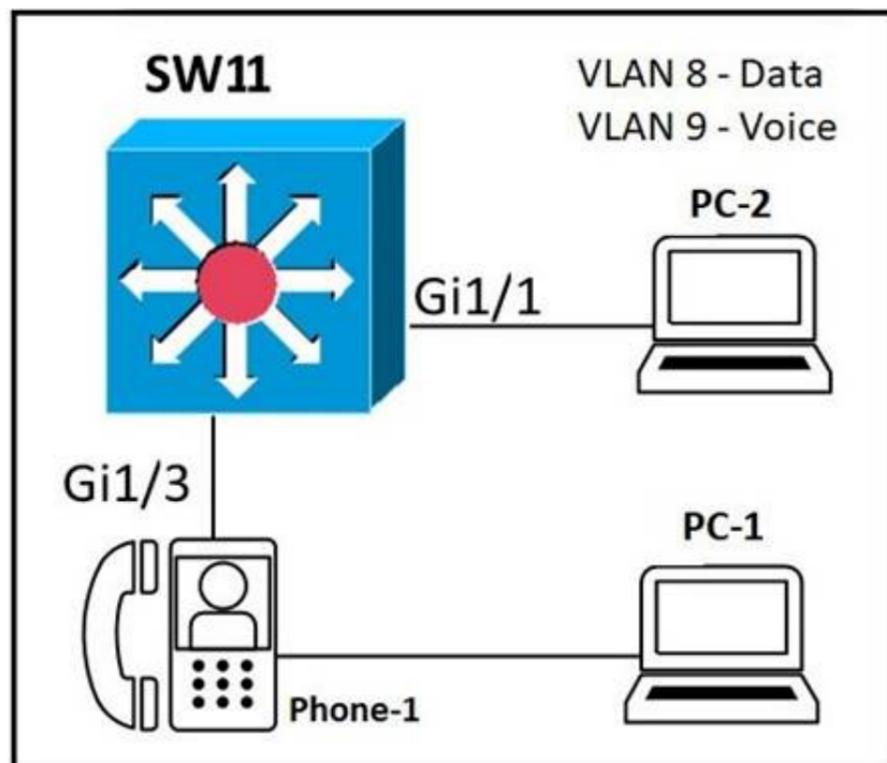
- A. Enable Security Association Teardown Protection and set the SA Query timeout to 10
- B. Enable MAC filtering and set the SA Query timeout to 10
- C. Enable 802.1x Layer 2 security and set me Comeback timer to 10
- D. Enable the Protected Management Frame service and set the Comeback timer to 10

Answer: C

NEW QUESTION 142

- (Topic 2)

Refer to the exhibit.



An administrator must configure interfaces Gi1/1 and Gi1/3 on switch SW11 PC-1 and PC- 2 must be placed in the Data VLAN and Phone-1 must be placed in the Voice VLAN Which configuration meets these requirements?

- interface gigabitethernet1/1
switchport mode access
switchport access vlan 8
!
interface gigabitethernet1/3
switchport mode access
switchport voice vlan 8
switchport access vlan 9
- interface gigabitethernet1/1
switchport mode access
switchport access vlan 9
!
interface gigabitethernet1/3
switchport mode trunk
switchport trunk vlan 8
switchport trunk vlan 9
- interface gigabitethernet1/1
switchport mode access
switchport access vlan 8
!
interface gigabitethernet1/3
switchport mode access
switchport access vlan 8
switchport voice vlan 9
- interface gigabitethernet1/1
switchport mode access
switchport access vlan 8
!
interface gigabitethernet1/3
switchport mode trunk
switchport trunk vlan 8
switchport voice vlan 9

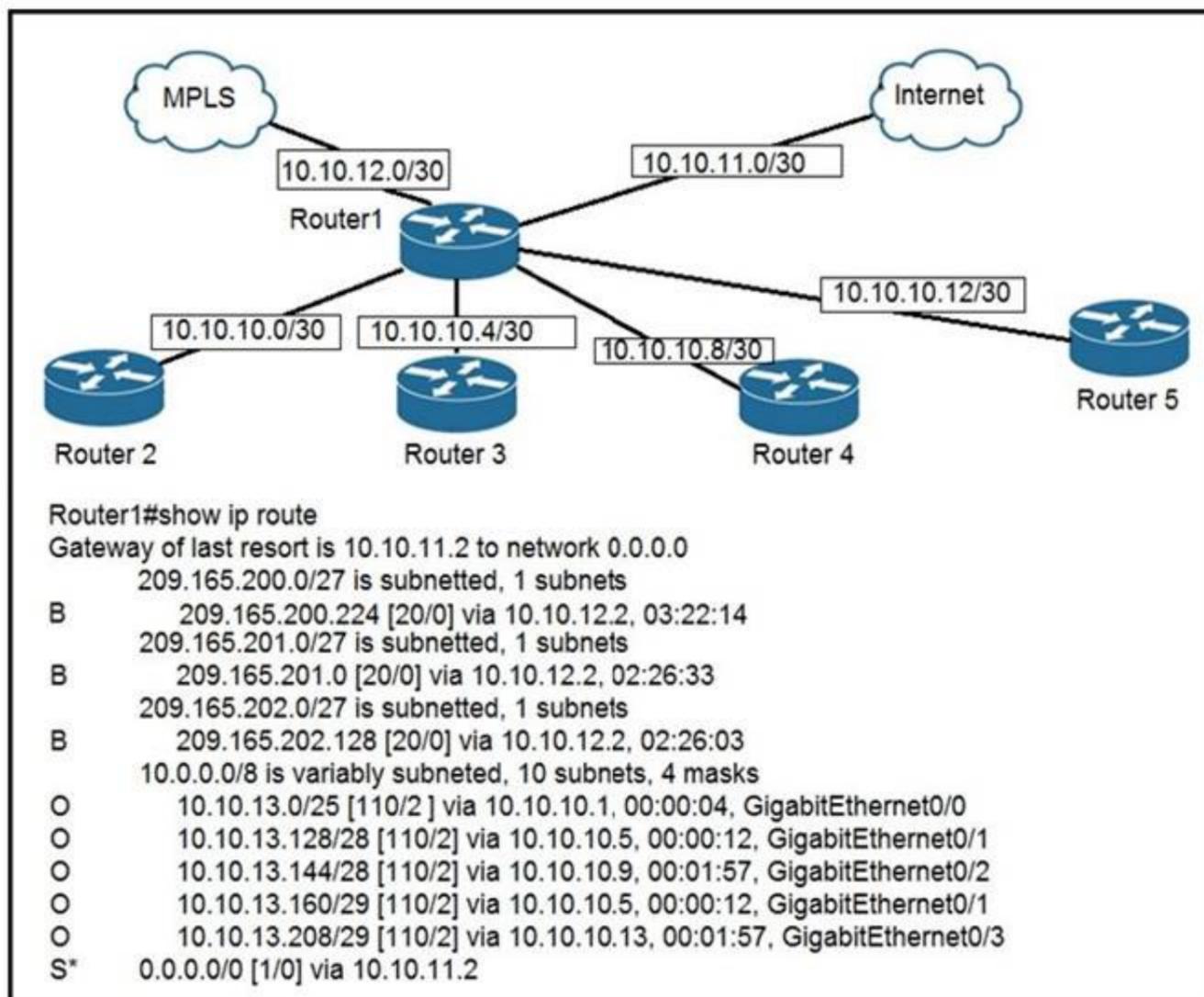
- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: C

NEW QUESTION 147

- (Topic 2)

Refer to the exhibit.



To which device does Router1 send packets that are destined to host 10.10.13.165?

- A. Router2
- B. Router3
- C. Router4
- D. Router5

Answer: B

NEW QUESTION 148

- (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 150

- (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 155

- (Topic 2)

What is the function of a server?

- A. It transmits packets between hosts in the same broadcast domain.
- B. It provides shared applications to end users.
- C. It routes traffic between Layer 3 devices.
- D. It Creates security zones between trusted and untrusted networks

Answer: B

NEW QUESTION 159

- (Topic 2)

Which JSON data type is an unordered set of attribute- value pairs?

- A. array
- B. string
- C. object
- D. Boolean

Answer: C

NEW QUESTION 160

- (Topic 2)

What are two characteristics of a controller-based network? (Choose two)

- A. The administrator can make configuration updates from the CLI
- B. It uses northbound and southbound APIs to communicate between architectural layers
- C. It moves the control plane to a central point.
- D. It decentralizes the control plane, which allows each device to make its own forwarding decisions
- E. It uses Telnet to report system issues.

Answer: BC

NEW QUESTION 161

- (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 164

- (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 169

- (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 171

- (Topic 2)

What is the purpose of an SSID?

- A. It provides network security
- B. It differentiates traffic entering access points
- C. It identifies an individual access point on a WLAN
- D. It identifies a WLAN

Answer: D

Explanation:

"In IEEE 802.11 wireless local area networking standards (including Wi-Fi), a service set is a group of wireless network devices which share a service set

identifier (SSID)... A service set forms a logical network of nodes operating with shared link-layer networking parameters; they form one logical network segment."

NEW QUESTION 172

- (Topic 2)

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

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

Answer: BE

NEW QUESTION 173

- (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 174

- (Topic 1)

Why was the RFC 1918 address space defined?

- A. conserve public IPv4 addressing
- B. preserve public IPv6 address space
- C. reduce instances of overlapping IP addresses
- D. support the NAT protocol

Answer: A

NEW QUESTION 177

- (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 Infrfce	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 178

- (Topic 1)

Which network action occurs within the data plane?

- A. compare the destination IP address to the IP routing table.
- B. run routing protocols (OSPF, EIGRP, RIP, BGP)
- C. make a configuration change from an incoming NETCONF RPC
- D. reply to an incoming ICMP echo request

Answer: A

NEW QUESTION 183

- (Topic 1)

Which type of information resides on a DHCP server?

- A. a list of the available IP addresses in a pool
- B. a list of public IP addresses and their corresponding names
- C. usernames and passwords for the end users in a domain
- D. a list of statically assigned MAC addresses

Answer: A

NEW QUESTION 186

- (Topic 1)

Which switch technology establishes a network connection immediately when it is plugged in?

- A. PortFast
- B. BPDU guard
- C. UplinkFast
- D. BackboneFast

Answer: A

Explanation:

PortFast is useful to connect hosts and switches to a switch. Access layer switches are more frequently “plugged in” and “plugged out” than distribution or core layer switches. Also, this feature’s target is just to minimize STP convergence time.

NEW QUESTION 189

- (Topic 1)

Which 802.11 frame type is association response?

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

Answer: A

Explanation:

Reference: https://en.wikipedia.org/wiki/802.11_Frame_Types

NEW QUESTION 192

- (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?

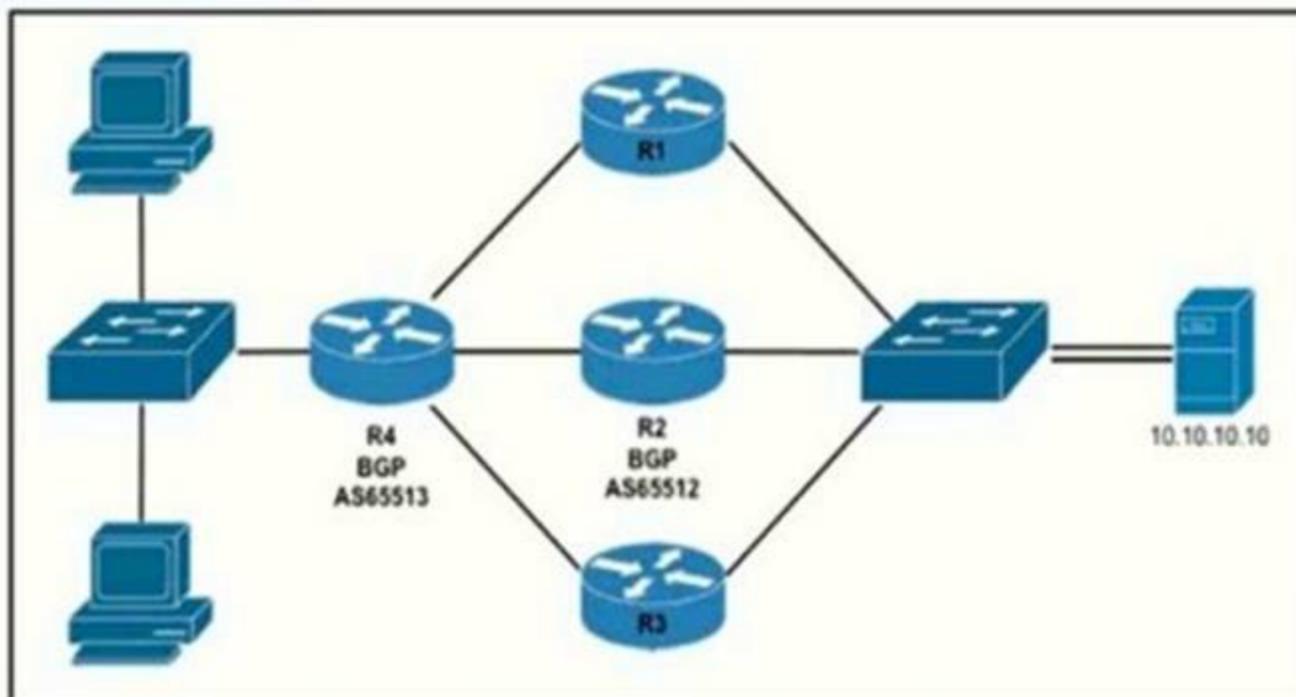
- A. The link is in a down state.
- B. The link is in an error disables state
- C. The link is becomes an access port.
- D. The link becomes a trunk port.

Answer: D

NEW QUESTION 194

- (Topic 1)

Refer to the exhibit.



Router R4 is dynamically learning the path to the server. If R4 is connected to R1 via OSPF Area 20, to R2 via R2 BGP, and to R3 via EIGRP 777, which path is installed in the routing table of R4?

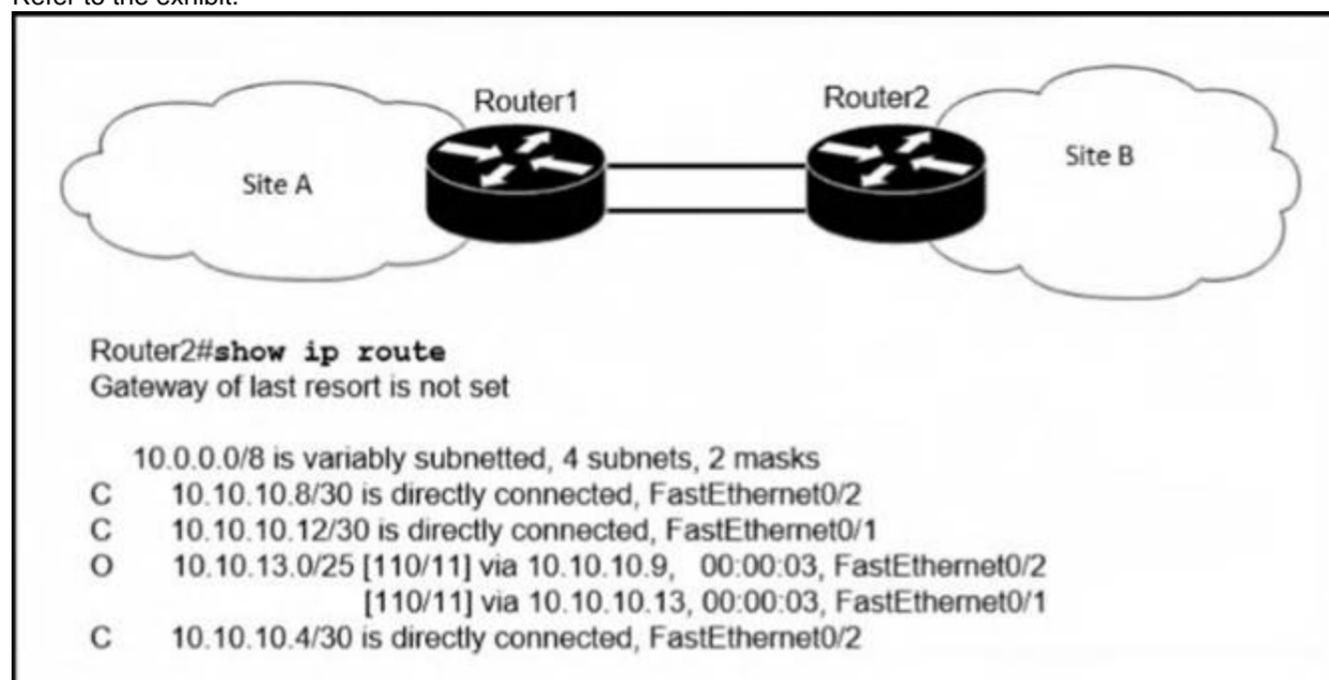
- A. the path through R1, because the OSPF administrative distance is 110
- B. the path through R2, because the IBGP administrative distance is 200
- C. the path through R2 because the EBGP administrative distance is 20
- D. the path through R3, because the EIGRP administrative distance is lower than OSPF and BGP

Answer: C

NEW QUESTION 197

- (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 200

- (Topic 1)

Which WAN access technology is preferred for a small office / home office architecture?

- A. broadband cable access
- B. frame-relay packet switching
- C. dedicated point-to-point leased line
- D. Integrated Services Digital Network switching.

Answer: A

NEW QUESTION 203

- (Topic 1)

What is the primary effect of the spanning-tree portfast command?

- A. it enables BPDU messages
- B. It minimizes spanning-tree convergence time
- C. It immediately puts the port into the forwarding state when the switch is reloaded
- D. It immediately enables the port in the listening state

Answer: B

Explanation:

Reference:

https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst3560/software/release/12-2_55_se/configuration/guide/3560_scg/swstpopt.html

NEW QUESTION 206

- (Topic 1)

What describes the operation of virtual machines?

- A. Virtual machines are responsible for managing and allocating host hardware resources
- B. In a virtual machine environment, physical servers must run one operating system at a time.
- C. Virtual machines are the physical hardware that support a virtual environment.
- D. Virtual machines are operating system instances that are decoupled from server hardware

Answer: B

NEW QUESTION 210

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:

172.28.228.144/18	172.28.228.144/23
172.28.228.144/21	172.28.228.144/21
172.28.228.144/23	172.28.228.144/25
172.28.228.144/25	172.28.228.144/29
172.28.228.144/29	172.28.228.144/18

NEW QUESTION 213

- (Topic 1)

When configuring a WLAN with WPA2 PSK in the Cisco Wireless LAN Controller GUI, which two formats are available to select? (Choose two)

- A. ASCII
- B. base64
- C. binary
- D. decimal
- E. hexadecimal

Answer: AE

Explanation:

Reference: https://www.cisco.com/c/en/us/td/docs/wireless/controller/7-4/configuration/guides/consolidated/b_cg74_CONSOLIDATED/b_cg74_CONSOLIDATED_chapter_01010001.html

NEW QUESTION 217

- (Topic 1)

How are the switches in a spine-and-leaf topology interconnected?

- A. Each leaf switch is connected to one of the spine switches.
- B. Each leaf switch is connected to two spine switches, making a loop.
- C. Each leaf switch is connected to each spine switch.
- D. Each leaf switch is connected to a central leaf switch, then uplinked to a core spine switch.

Answer: B

NEW QUESTION 218

- (Topic 1)

What is a practice that protects a network from VLAN hopping attacks?

- A. Enable dynamic ARP inspection
- B. Configure an ACL to prevent traffic from changing VLANs
- C. Change native VLAN to an unused VLAN ID
- D. Implement port security on internet-facing VLANs

Answer: C

NEW QUESTION 219

- (Topic 1)

What is a network appliance that checks the state of a packet to determine whether the packet is legitimate?

- A. Layer 2 switch
- B. load balancer
- C. firewall
- D. LAN controller

Answer: C

NEW QUESTION 223

- (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 227

- (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 232

- (Topic 1)

Which command prevents passwords from being stored in the configuration as plain text on a router or switch?

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

Answer: B

NEW QUESTION 233

- (Topic 1)

What is recommended for the wireless infrastructure design of an organization?

- A. group access points together to increase throughput on a given channel
- B. configure the first three access points are configured to use Channels 1, 6, and 11
- C. include a least two access points on nonoverlapping channels to support load balancing
- D. assign physically adjacent access points to the same Wi-Fi channel

Answer: B

NEW QUESTION 234

- (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 239

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 queueing

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

NEW QUESTION 240

- (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 244

- (Topic 1)

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

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

Answer: BD

Explanation:

Cisco DNA Center offers 360-degree extensibility through four distinct types of platform capabilities:+ Intent-based APIs leverage the controller and enable

business and IT applications to deliver intent to the network and to reap network analytics and insights for IT and business innovation.+ Process adapters, built on integration APIs, allow integration with other IT and network systems to streamline IT operations and processes.+ Domain adapters, built on integration APIs, allow integration with other infrastructure domains such as data center, WAN, and security to deliver a consistent intent-based infrastructure across the entire IT environment.+ SDKs allow management to be extended to third-party vendor's network devices to offer support for diverse environments.

NEW QUESTION 248

- (Topic 1)

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

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

Answer: A

NEW QUESTION 252

- (Topic 1)

Which device performs stateful inspection of traffic?

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

Answer: A

NEW QUESTION 257

- (Topic 1)

In which situation is private IPv4 addressing appropriate for a new subnet on the network of an organization?

- A. There is limited unique address space, and traffic on the new subnet will stay local within the organization.
- B. The network has multiple endpoint listeners, and it is desired to limit the number of broadcasts.
- C. Traffic on the subnet must traverse a site-to-site VPN to an outside organization.
- D. The ISP requires the new subnet to be advertised to the internet for web services.

Answer: A

NEW QUESTION 258

- (Topic 1)

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

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

Answer: A

Explanation:

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

NEW QUESTION 263

- (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 267

- (Topic 1)

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

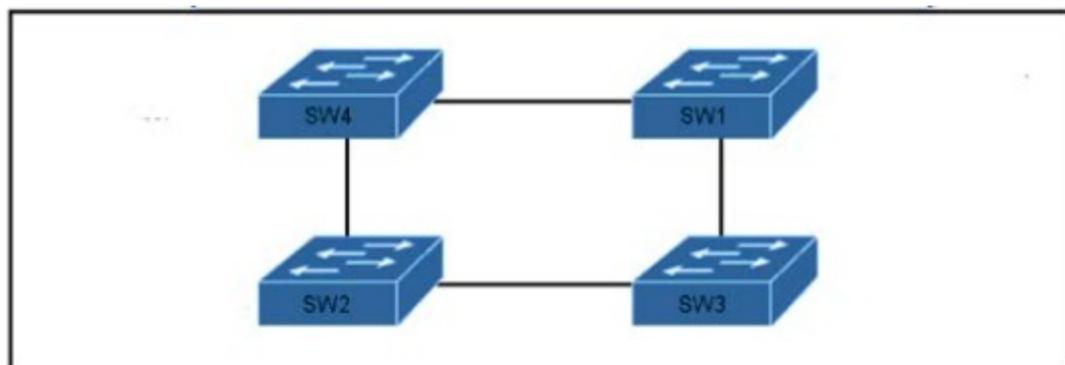
- A. VTP
- B. DTP
- C. egress traffic
- D. ingress traffic

Answer: D

NEW QUESTION 270

- (Topic 1)

Refer to the exhibit.



Which switch in this configuration will be elected as the root bridge?

- SW1: 0C:E0:38:00:94:04
- SW2: 0C:0E:15:22:05:97
- SW3: 0C:0E:15:1A:3C:9D
- SW4: 0C:E0:18:A1:B3:19

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

Answer: C

NEW QUESTION 275

- (Topic 1)

Which network allows devices to communicate without the need to access the Internet?

- A. 1729.0.0/16
- B. 172.28.0.0/16
- C. 192.0.0.0/8
- D. 209.165.201.0/24

Answer: B

Explanation:

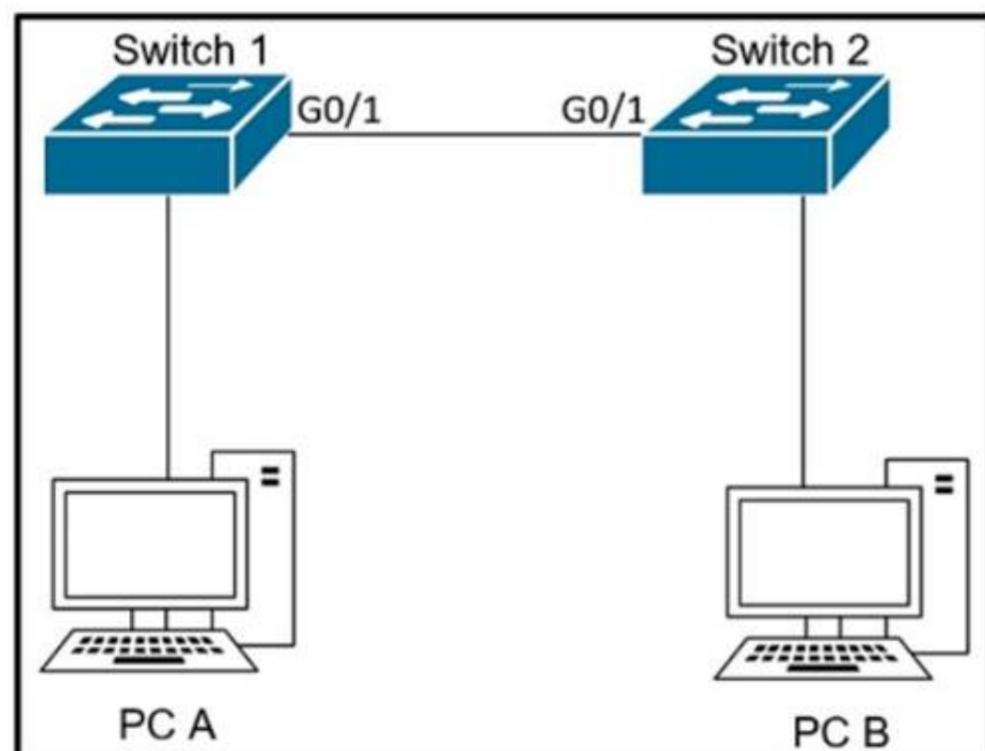
The private ranges of each class of IPv4 are listed below:

Class A private IP address ranges from 10.0.0.0 to 10.255.255.255 Class B private IP address ranges from 172.16.0.0 to 172.31.255.255 Class C private IP address ranges from 192.168.0.0 to 192.168.255.255 Only the network 172.28.0.0/16 belongs to the private IP address (of class B).

NEW QUESTION 277

- (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 279

- (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 281

- (Topic 1)

Which two WAN architecture options help a business improve scalability and reliability for the network? (Choose two.)

- A. asynchronous routing
- B. single-homed branches
- C. dual-homed branches
- D. static routing
- E. dynamic routing

Answer: AC

NEW QUESTION 283

- (Topic 1)

In which two ways does a password manager reduce the chance of a hacker stealing a users password? (Choose two.)

- A. It automatically provides a second authentication factor that is unknown to the original user.
- B. It uses an internal firewall to protect the password repository from unauthorized access.
- C. It protects against keystroke logging on a compromised device or web site.
- D. It stores the password repository on the local workstation with built-in antivirus and anti- malware functionality
- E. It encourages users to create stronger passwords.

Answer: CE

NEW QUESTION 285

- (Topic 1)

An email user has been lured into clicking a link in an email sent by their company's security organization. The webpage that opens reports that it was safe but the link could have contained malicious code. Which type of security program is in place?

- A. Physical access control
- B. Social engineering attack
- C. brute force attack
- D. user awareness

Answer: D

Explanation:

This is a training program which simulates an attack, not a real attack (as it says "The webpage that opens reports that it was safe") so we believed it should be called a "user awareness" program. Therefore the best answer here should be "user awareness". This is the definition of "User awareness" from CCNA 200-301 Official Cert Guide Book: "User awareness: All users should be made aware of the need for data confidentiality to protect corporate information, as well as their own credentials and personal information. They should also be made aware of potential threats, schemes to mislead, and proper procedures to report security incidents." Note: Physical access control means infrastructure locations, such as network closets and data centers, should remain securely locked.

NEW QUESTION 286

- (Topic 1)

Which API is used in controller-based architectures to interact with edge devices?

- A. overlay
- B. northbound
- C. underlay
- D. southbound

Answer: D

NEW QUESTION 288

- (Topic 1)

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

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

Answer: B

NEW QUESTION 293

- (Topic 1)

Which output displays a JSON data representation?

- A.

```
{
  "response": {
    "taskId": {},
    "url": "string"
  },
  "version": "string"
}
```
- B.

```
{
  "response" - {
    "taskId" - {},
    "url" - "string"
  },
  "version" - "string"
}
```
- C.

```
{
  "response": {
    "taskId": {},
    "url": "string"
  },
  "version": "string"
}
```
- D.

```
{
  "response". {
    "taskId". {};
    "url". "string"
  };
  "version". "string"
}
```

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

Answer: C

Explanation:

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

NEW QUESTION 296

- (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 299

- (Topic 1)

What is the purpose of traffic shaping?

- A. to mitigate delays over slow links
- B. to provide fair queuing for buffered flows
- C. to limit the bandwidth that a flow can use to
- D. be a marking mechanism that identifies different flows

Answer: B

Explanation:

Traffic shaping retains excess packets in a queue and then schedules the excess for later transmission over increments of time.

NEW QUESTION 303

- (Topic 1)

Which feature on the Cisco Wireless LAN Controller when enabled restricts management access from specific networks?

- A. CPU ACL
- B. TACACS
- C. Flex ACL
- D. RADIUS

Answer: A

Explanation:

Reference: <https://www.cisco.com/c/en/us/support/docs/wireless-mobility/wlan-security/71978-acl-wlc.html>

NEW QUESTION 308

- (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 311

- (Topic 1)

Which protocol does an IPv4 host use to obtain a dynamically assigned IP address?

- A. ARP
- B. DHCP
- C. CDP
- D. DNS

Answer: B

Explanation:

<https://www.geeksforgeeks.org/how-dhcp-server-dynamically-assigns-ip-address-to-a-host/#:~:text=DHCP%20is%20an%20abbreviation%20for,subnet%20mask%20and%20gateway%20address.>

NEW QUESTION 314

- (Topic 1)

Which function does the range of private IPv4 addresses perform?

- A. allows multiple companies to each use the same addresses without conflicts
- B. provides a direct connection for hosts from outside of the enterprise network
- C. ensures that NAT is not required to reach the internet with private range addressing
- D. enables secure communications to the internet for all external hosts

Answer: A

NEW QUESTION 319

- (Topic 1)

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

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

- C. Switch(config)#spanning-tree vlan 750 priority 614440
- D. Switch(config)#spanning-tree vlan 750 priority 0

Answer: D

Explanation:

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

NEW QUESTION 324

- (Topic 1)

Which HTTP status code is returned after a successful REST API request?

- A. 200
- B. 301
- C. 404
- D. 500

Answer: A

NEW QUESTION 328

DRAG DROP - (Topic 1)

Drag and drop the DHCP snooping terms from the left onto the descriptions on the right.

DHCP server	list of hosts on the network that are unknown to the administrative domain
snooping binding database	network component that propagates IP addresses to hosts on the network
spurious DHCP server	internal device under the control of the network administrator
trusted	unknown DHCP server within an administrative domain
untrusted	default state of all interfaces

- A. Mastered
- B. Not Mastered

Answer: A

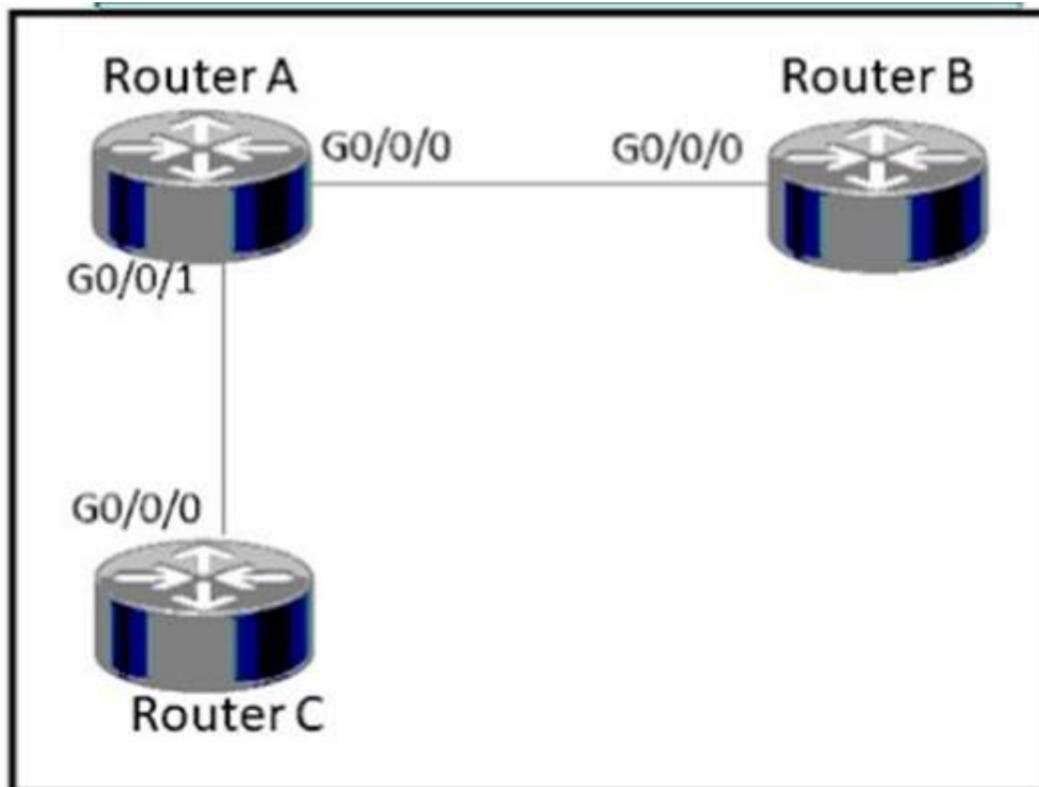
Explanation:

DHCP server	snooping binding database
snooping binding database	spurious DHCP server
spurious DHCP server	trusted
trusted	DHCP server
untrusted	untrusted

NEW QUESTION 329

- (Topic 1)

Refer to the exhibit.



How must router A be configured so that it only sends Cisco Discovery Protocol Information to router C?

- #config t
Router A (config)#cdp run
Router A (config)#interface gi0/0/0
Router A (config-if)#no cdp enable
- #config t
Router A (config)#cdp run
Router A (config)#interface gi0/0/0
Router A (config-if)#cdp enable
- #config t
Router A (config)#cdp run
Router A (config)#interface gi0/0/1
Router A (config-if)#cdp enable
- #config t
Router A (config)#no cdp run
Router A (config)#interface gi0/0/1
Router A (config-if)#cdp enable

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

Answer: D

NEW QUESTION 332

- (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 334

- (Topic 1)

What is the difference in data transmission delivery and reliability between TCP and UDP?

- A. TCP transmits data at a higher rate and ensures packet deliver
- B. UDP retransmits lost data to ensure applications receive the data on the remote end.
- C. UDP sets up a connection between both devices before transmitting dat

- D. TCP uses the three-way handshake to transmit data with a reliable connection.
- E. UDP is used for multicast and broadcast communication.
- F. TCP is used for unicast communication and transmits data at a higher rate with error checking.
- G. TCP requires the connection to be established before transmitting data.
- H. UDP transmits data at a higher rate without ensuring packet delivery.

Answer: D

NEW QUESTION 335

- (Topic 1)

What are two improvements provided by automation for network management in an SDN environment? (Choose two)

- A. Data collection and analysis tools establish a baseline for the network
- B. Artificial intelligence identifies and prevents potential design failures.
- C. Machine learning minimizes the overall error rate when automating troubleshooting processes
- D. New devices are onboarded with minimal effort
- E. Proprietary Cisco APIs leverage multiple network management tools.

Answer: BE

NEW QUESTION 339

- (Topic 1)

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

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

Answer: AD

Explanation:

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

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

NEW QUESTION 341

- (Topic 1)

What are two functions of a server on a network? (Choose two)

- A. achieves redundancy by exclusively using virtual server clustering
- B. runs applications that send and retrieve data for workstations that make requests
- C. handles requests from multiple workstations at the same time
- D. runs the same operating system in order to communicate with other servers
- E. housed solely in a data center that is dedicated to a single client

Answer: BC

NEW QUESTION 346

- (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 349

- (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

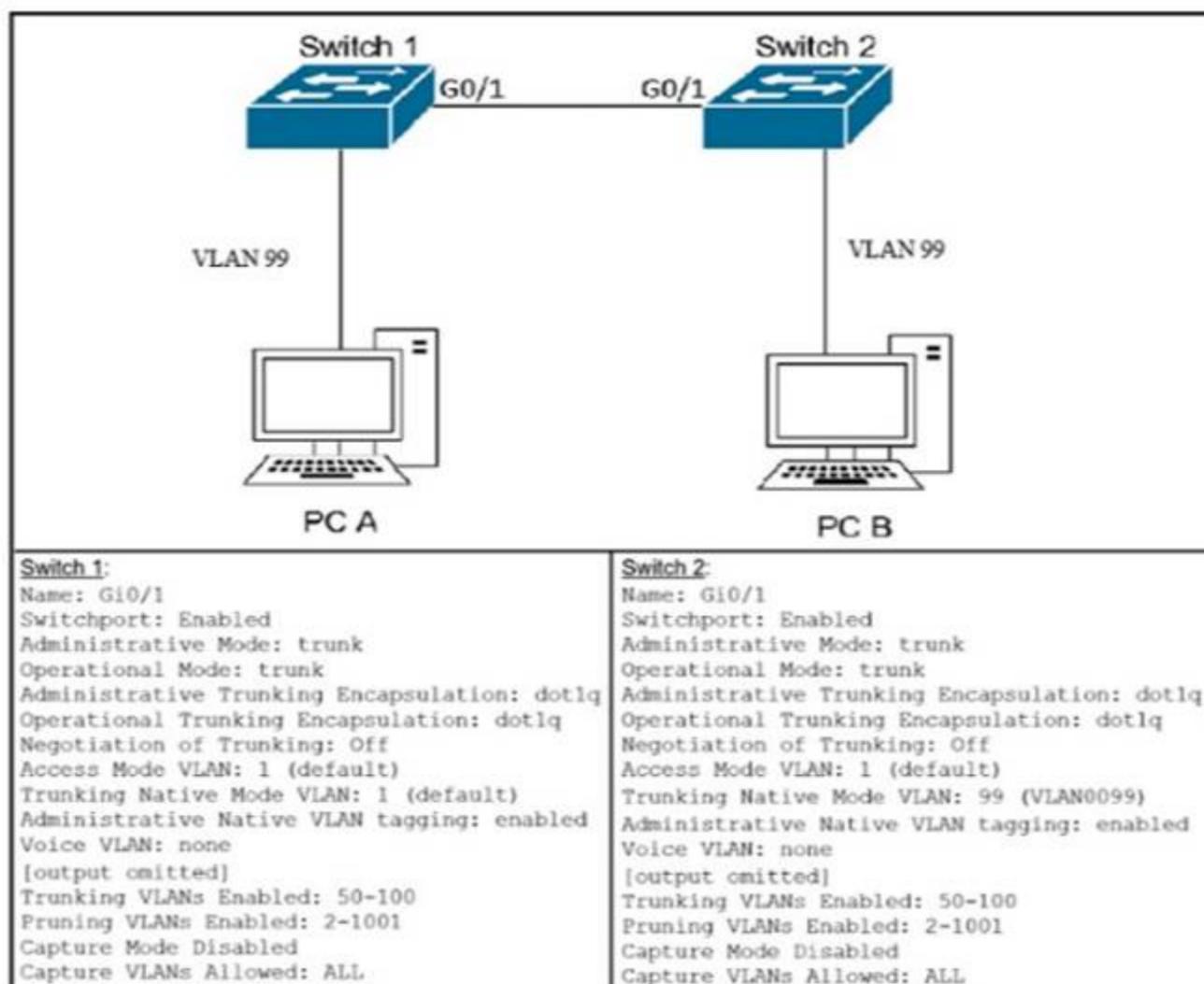
Explanation:

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 351

- (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 352

- (Topic 1)

What is the purpose of using First Hop Redundancy Protocol in a specific subnet?

- A. Filter traffic based on destination IP addressing
- B. Sends the default route to the hosts on a network
- C. ensures a loop-free physical topology
- D. forwards multicast hello messages between routers

Answer: D

Explanation:

FHRP is layer 3 protocol whose purpose is to protect the default gateway by offering redundancy of the gateway in a subnet. This is achieved by allowing two or more routers to provide a backup for the first-hop IP router address. If a failure of an active router occurs, the backup router will take over the address. The routers negotiate their roles (Active/Standby) with each other by multicast hello messages to share the VIP (virtual IP address) between the FHRP routers. The terms Active/Standby vary between the different types of FHRP. The active router will act as the default gateway and the standby router acts as a backup the active router.

NEW QUESTION 354

- (Topic 1)

Which two WAN architecture options help a business scalability and reliability for the network? (Choose two)

- A. asynchronous routing
- B. single-homed branches
- C. dual-homed branches
- D. static routing
- E. dynamic routing

Answer: AC

NEW QUESTION 359

DRAG DROP - (Topic 1)

Drag and drop the functions of DHCP from the left onto any of the positions on the right Not all functions are used

provides local control for network segments using a client-server scheme	1
reduces the administrative burden for onboarding end users	2
associates hostnames to IP addresses	3
maintains an address pool	4
assigns IP addresses to local hosts for a configurable lease time	
offers domain name server configuration	
uses authoritative servers for record keeping	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

provides local control for network segments using a client-server scheme	maintains an address pool
reduces the administrative burden for onboarding end users	provides local control for network segments using a client-server scheme
associates hostnames to IP addresses	reduces the administrative burden for onboarding end users
maintains an address pool	assigns IP addresses to local hosts for a configurable lease time
assigns IP addresses to local hosts for a configurable lease time	
offers domain name server configuration	
uses authoritative servers for record keeping	

NEW QUESTION 363

- (Topic 1)

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

- A. SNMP
- B. DNS lookup

- C. syslog
- D. NTP

Answer: B

NEW QUESTION 368

- (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 370

- (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 375

- (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 377

- (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 382

- (Topic 1)

Which technology is appropriate for communication between an SDN controller and applications running over the network?

- A. OpenFlow
- B. REST API
- C. NETCONF
- D. Southbound API

Answer: B

NEW QUESTION 386

- (Topic 1)

Which two functions are performed by the core layer in a three-tier architecture? (Choose two)

- A. Provide uninterrupted forwarding service.
- B. Police traffic that is sent to the edge of the network.
- C. Provide direct connectivity for end user devices.
- D. Ensure timely data transfer between layers.
- E. Inspect packets for malicious activity.

Answer: AD

Explanation:

Cisco is very clear about the purpose of this layer. Its only role is to forward traffic, the fastest it can. Here you don't apply any policy, as you must try to reduce the load of the core so it can focus on routing. https://www.cisco.com/c/en/us/td/docs/solutions/Enterprise/Campus/campover.html#wp708_831

NEW QUESTION 390

- (Topic 1)

An engineer must configure Interswitch VLAN communication between a Cisco switch and a third-party switch. Which action should be taken?

- A. configure IEEE 802.1p
- B. configure IEEE 802.1q
- C. configure ISL
- D. configure DSCP

Answer: B

NEW QUESTION 394

- (Topic 1)

What is a benefit of VRRP?

- A. It provides traffic load balancing to destinations that are more than two hops from the source.
- B. It provides the default gateway redundancy on a LAN using two or more routers.
- C. It allows neighbors to share routing table information between each other.
- D. It prevents loops in a Layer 2 LAN by forwarding all traffic to a root bridge, which then makes the final forwarding decision.

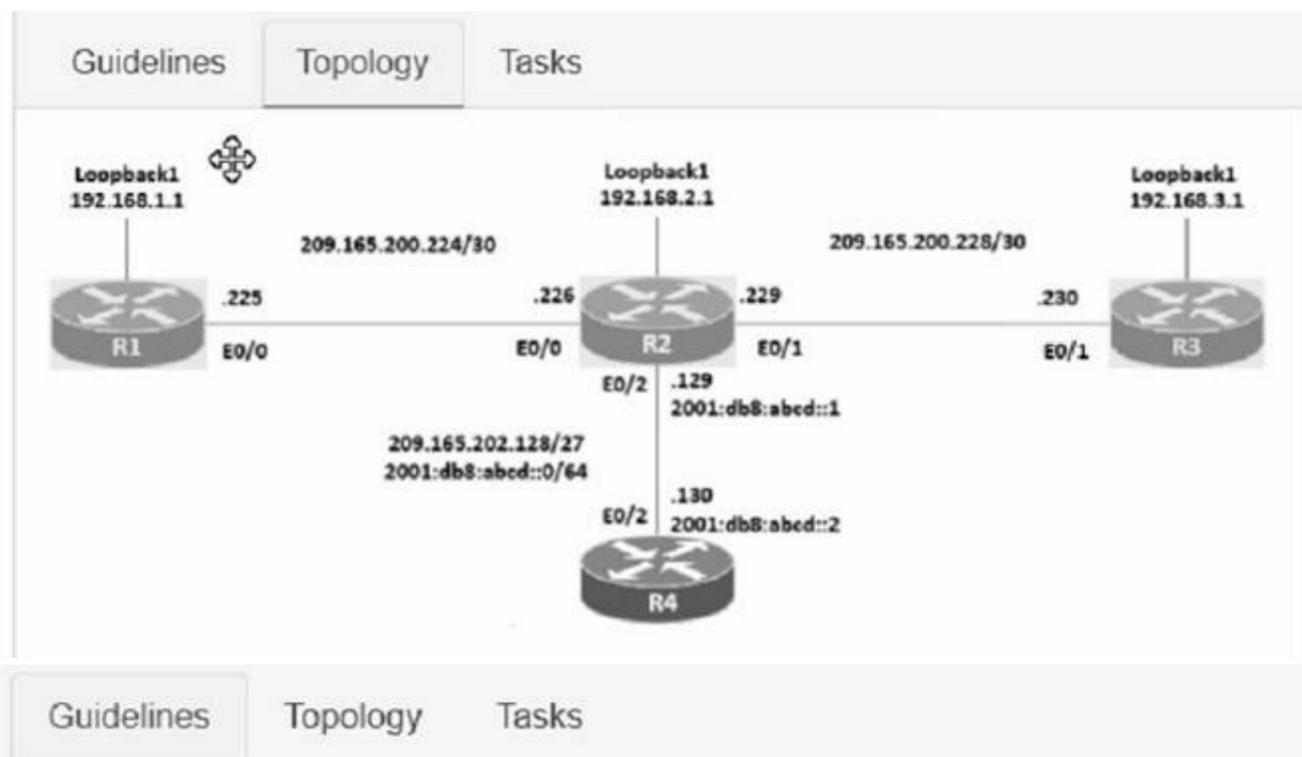
Answer: B

NEW QUESTION 395

SIMULATION - (Topic 5)

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

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



Guidelines

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

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

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer as below configuration:

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

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

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

NEW QUESTION 397

SIMULATION - (Topic 5)

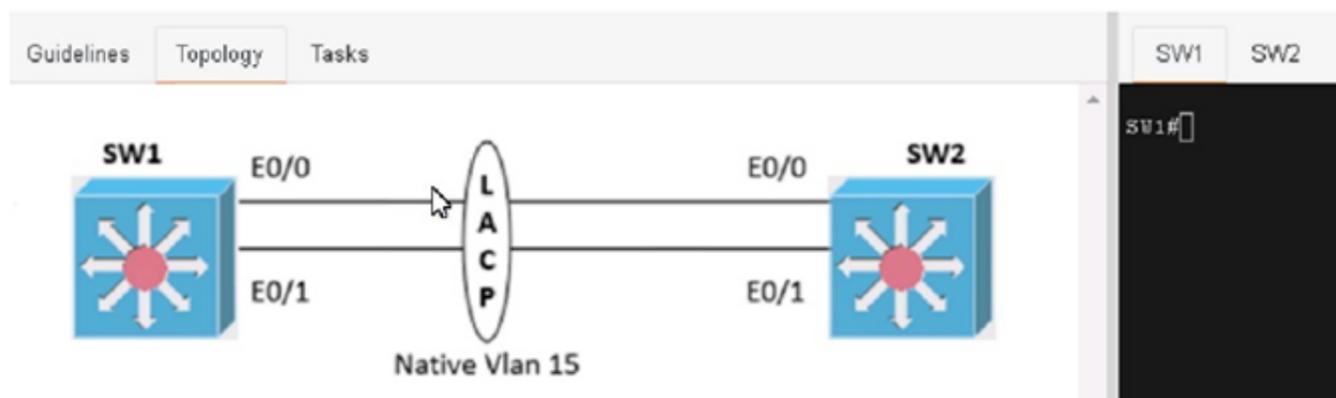
Physical connectivity is implemented between the two Layer 2 switches, and the network connectivity between them must be configured

- * 1. Configure an LACP EtherChannel and number it as 1; configure it between switches SW1 and SVV2 using interfaces Ethernet0/0 and Ethernet0/1 on both sides. The LACP mode must match on both ends
- * 2 Configure the EtherChannel as a trunk link.
- * 3. Configure the trunk link with 802.1 q tags.
- * 4. Configure the native VLAN of the EtherChannel as VLAN 15.

Guidelines

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

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



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer as below configuration:

On SW1:

```
conf terminal vlan 15
exit
```

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

```
copy run start
```

on SW2:

```
conf terminal
vlan 15 exit
```

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

NEW QUESTION 402

DRAG DROP - (Topic 4)

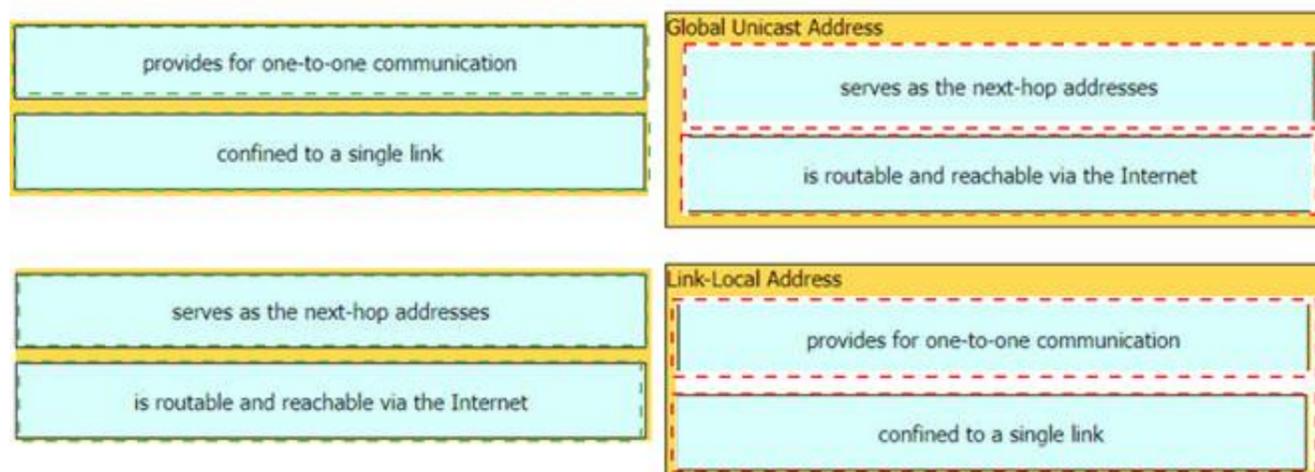
Drag and drop the characteristic from the left onto the IPv6 address type on the right.

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:



NEW QUESTION 404

- (Topic 4)

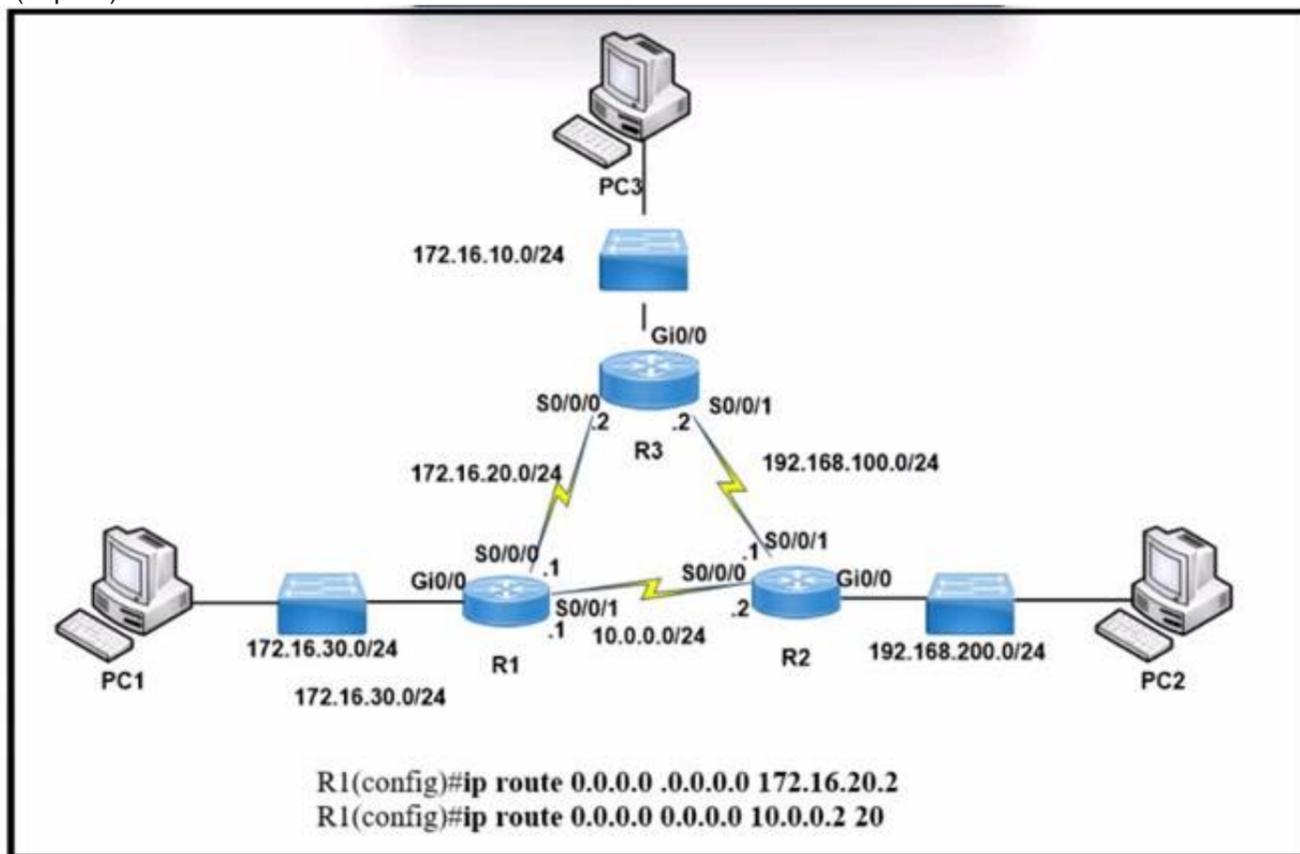
Which interface or port on the WLC is the default for in-band device administration and communications between the controller and access points?

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

Answer: B

NEW QUESTION 406

- (Topic 4)



Refer to the exhibit. After applying this configuration to router R1, a network engineer is verifying the implementation. If all links are operating normally, and the engineer sends a series of packets from PC1 to PC3. how are the packets routed?

- A. They are routed to 172.16.20.2.
- B. They are routed to 192.168.100.2.
- C. They are distributed sent round robin to interfaces SO/0/0 and SO/0/1.
- D. They are routed to 10.0.0.2.

Answer: A

NEW QUESTION 407

- (Topic 4)

Which WLC interface provides out-of-band management in the Cisco Unified Wireless Network Architecture?

- A. service port
- B. virtual
- C. AP-Manager
- D. dynamic

Answer: A

NEW QUESTION 409

- (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 413

- (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 418

- (Topic 4)

Which REST method updates an object in the Cisco DNA Center Intent API?

- A. CHANGE
- B. UPDATE
- C. POST
- D. PUT

Answer: D

Explanation:

PUT is most-often utilized for **update** capabilities, PUT-ing to a known resource URI with the request body containing the newly-updated representation of the original resource. However, PUT can also be used to create a resource in the case where the resource ID is chosen by the client instead of by the server. In other words, if the PUT is to a URI that contains the value of a non-existent resource ID. Again, the request body contains a resource representation. Many feel this is convoluted and confusing. Consequently, this method of creation should be used sparingly, if at all. Alternatively, use POST to create new resources and provide the client-defined ID in the body representation—presumably to a URI that doesn't include the ID of the resource (see POST below). On successful update, return 200 (or 204 if not returning any content in the body) from a PUT. If using PUT for create, return HTTP status 201 on successful creation. A body in the response is optional—providing one consumes more bandwidth. It is not necessary to return a link via a Location header in the creation case since the client already set the resource ID. PUT is not a safe operation, in that it modifies (or creates) state on the server, but it is idempotent. In other words, if you create or update a resource using PUT and then make that same call again, the resource is still there and still has the same state as it did with the first call. If, for instance, calling PUT on a resource increments a counter within the resource, the call is no longer idempotent. Sometimes that happens and it may be enough to document that the call is not idempotent. However, it's recommended to keep PUT requests idempotent. It is strongly recommended to use POST for non-idempotent requests. Examples:
<https://www.restapitutorial.com/lessons/httpmethods.html>

NEW QUESTION 423

- (Topic 4)

Refer to the exhibit.

```
access-list 10 permit 10.0.0.0 0.0.0.255

interface Serial0

ip access-list 10 in
```

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

- A. The permit command fails and returns an error code.
- B. The router accepts all incoming traffic to Serial0 with the last octet of the source IP set to 0.
- C. The sourced traffic from IP range 10.0.0.0 -10.0.0.255 is allowed on Serial10.
- D. The router fails to apply the access list to the interface.

Answer: C

NEW QUESTION 425

- (Topic 4)

To improve corporate security, an organization is planning to implement badge authentication to limit access to the data center. Which element of a security program is being deployed?

- A. user training
- B. user awareness
- C. vulnerability verification
- D. physical access control

Answer: D

NEW QUESTION 426

- (Topic 4)

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

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

Answer: B

NEW QUESTION 430

- (Topic 4)

What is the definition of backdoor malware?

- A. malicious code that is installed onto a computer to allow access by an unauthorized user
- B. malicious code with the main purpose of downloading other malicious code
- C. malicious program that is used to launch other malicious programs
- D. malicious code that infects a user machine and then uses that machine to send spam

Answer: A

NEW QUESTION 433

DRAG DROP - (Topic 4)

Drag and drop the characteristics of transport layer protocols from the left onto the corresponding protocols on the right.

guarantees packet delivery	TCP
uses a 32-bit sequence number	
ideal for voice traffic	
provides support for retransmission of lost packets	UDP
offers minimal overhead within a packet	
requires less computer resources	

- A. Mastered
- B. Not Mastered

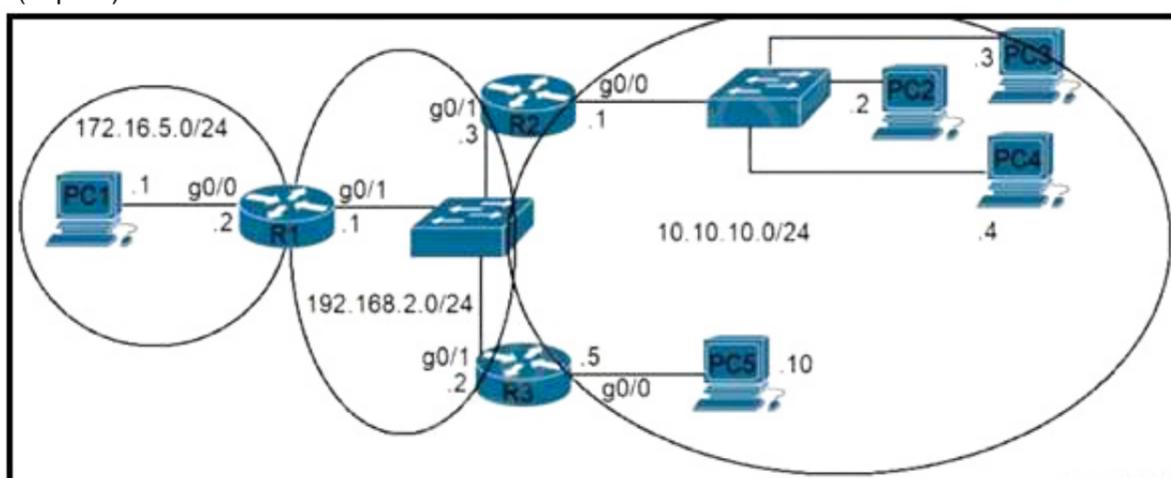
Answer: A

Explanation:



NEW QUESTION 437

- (Topic 4)



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

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

Answer: AE

NEW QUESTION 441

- (Topic 4)

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

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

Answer: B

NEW QUESTION 442

- (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 446

- (Topic 4)

How do UTP and STP cables compare?

- A. STP cables are cheaper to procure and easier to install and UTP cables are more expensive and harder to install.

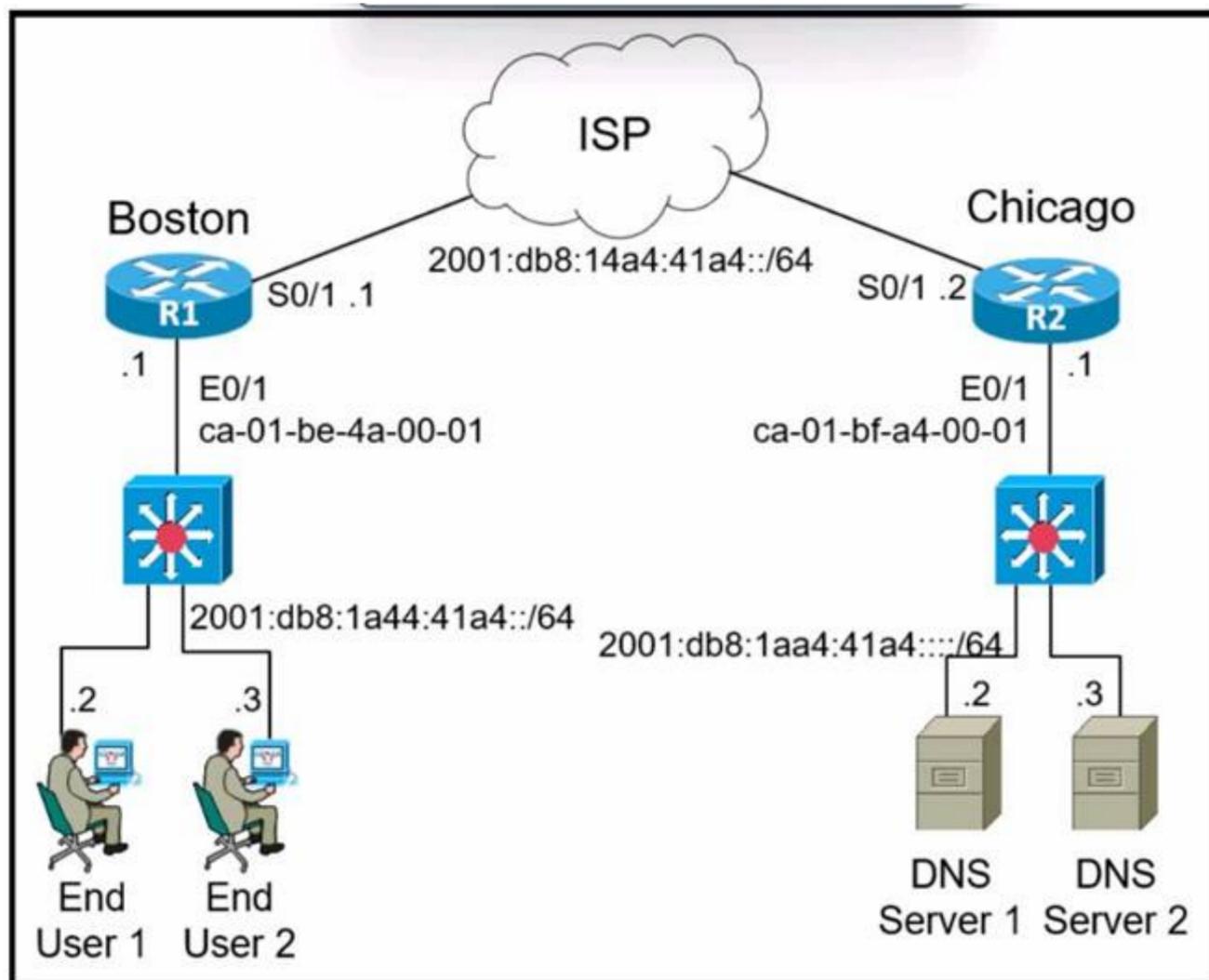
- B. UTP cables are less prone to crosstalk and interference and STP cables are more prone to crosstalk and interference.
- C. UTP cables provide taster and more reliable data transfer rates and STP cables are slower and less reliable.
- D. STP cables are shielded and protect against electromagnetic interference and UTP lacks the same protection against electromagnetic interference.

Answer: D

NEW QUESTION 450

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 452

- (Topic 4)

Why is a first-hop redundancy protocol implemented?

- A. to protect against default gateway failures
- B. to prevent loops in a network
- C. to enable multiple switches to operate as a single unit
- D. to provide load-sharing for a multilink segment

Answer: A

NEW QUESTION 453

- (Topic 4)

An engineer is configuring router R1 with an IPv6 static route for prefix 2019:C15C:0CAF:E001::/64. The next hop must be 2019:C15C:0CAF:E002::1 The route must be reachable via the R1 Gigabit 0/0 interface. Which command configures the designated route?

- A. R1(config)#ipv6 route 2019:C15C:0CAF:E001::/64 2019:C15C:0CAF:E002::1
- B. R1(config-if)#ipv6 route 2019:C15C:0CAF:E001::/64 2019:C15C:0CAF:E002::1
- C. R1(config-if)#ip route 2019:C15C:0CAF:E001::/64 GigabitEthernet0/0
- D. R1(config)#ip route 2019:C15C:0CAF:E001::/64 GigabitEthernet0/0

Answer: C

NEW QUESTION 458

- (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 461

- (Topic 4)

What is the function of northbound API?

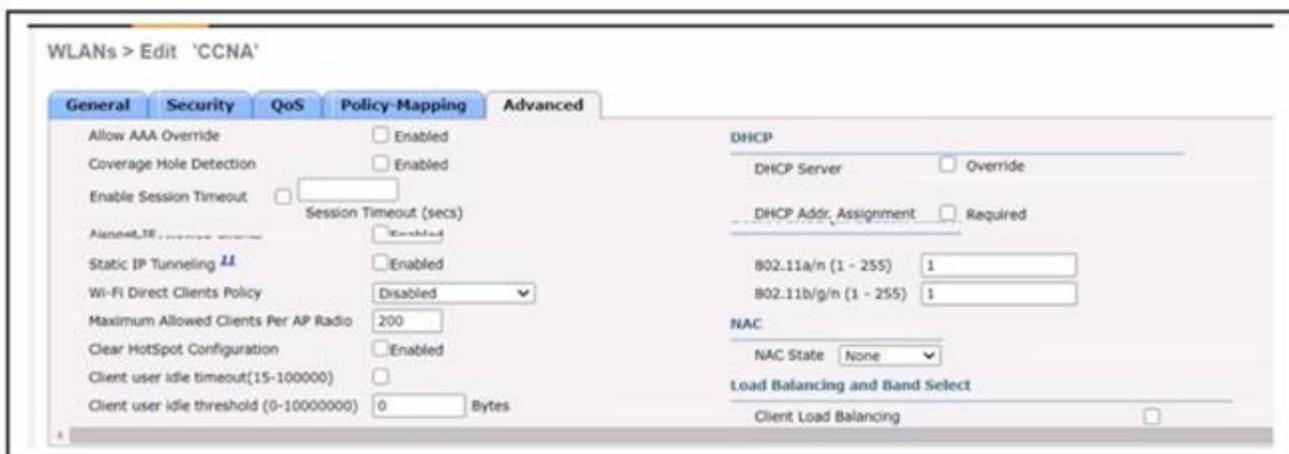
- A. It upgrades software and restores files.
- B. It relies on global provisioning and configuration.
- C. It supports distributed processing for configuration.
- D. It provides a path between an SDN controller and network applications.

Answer: D

NEW QUESTION 462

- (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 463

- (Topic 4)

A network engineer must migrate a router loopback interface to the IPv6 address space. If the current IPv4 address of the interface is 10.54.73.1/32, and the engineer configures IPv6 address 0.0.0.0:ffff:a36:4901, which prefix length must be used?

- A. /64
- B. /96
- C. /124
- D. /128

Answer: D

NEW QUESTION 467

- (Topic 4)

What is a reason to configure a trunk port that connects to a WLC distribution port?

- A. Eliminate redundancy with a link failure in the data path.
- B. Allow multiple VLAN to be used in the data path.
- C. Provide redundancy if there is a link failure for out-of-band management.
- D. Permit multiple VLANs to provide out-of-band management.

Answer: D

NEW QUESTION 471

DRAG DROP - (Topic 4)

Drag and drop the functions of AAA supporting protocols from the left onto the protocols on the right.

encrypts only the password when it sends an access request	RADIUS
encrypts the entire body of the access-request packet	
separates all three AAA operations	
combines authentication and authorization	TACACS+
uses TCP	
uses UDP	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

encrypts only the password when it sends an access request	RADIUS
encrypts the entire body of the access-request packet	encrypts only the password when it sends an access request
separates all three AAA operations	uses UDP
combines authentication and authorization	combines authentication and authorization
uses TCP	TACACS+
uses UDP	encrypts the entire body of the access-request packet
	separates all three AAA operations
	uses TCP

NEW QUESTION 476

- (Topic 4)

An engineer is configuring SSH version 2 exclusively on the R1 router. What is the minimum configuration required to permit remote management using the cryptographic protocol?

● **hostname R1**

```
ip domain name cisco  
  
crypto key generate rsa general-keys modulus 1024  
  
username cisco privilege 15 password 0 cisco123  
  
ip ssh version 2  
  
line vty 0 15  
transport input ssh  
login local
```

● **hostname R1**

```
crypto key generate rsa general-keys modulus 1024  
  
username cisco privilege 15 password 0 cisco123  
  
ip ssh version 2  
  
line vty 0 15  
transport input all  
login local
```

● **hostname R1**

```
service password-encryption  
  
crypto key generate rsa general-keys modulus 1024  
  
username cisco privilege 15 password 0 cisco123  
  
ip ssh version 2  
  
line vty 0 15  
transport input ssh  
login local
```

● **hostname R1**

```
ip domain name cisco  
  
crypto key generate rsa general-keys modulus 1024  
  
username cisco privilege 15 password 0 cisco123  
  
ip ssh version 2  
  
line vty 0 15  
transport input all  
login local
```

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

Answer: C

NEW QUESTION 481

DRAG DROP - (Topic 4)

Drag and drop the elements of a security program from the left onto the corresponding descriptions on the right.

awareness	document that outlines an organization's security goals and practices and the roles and responsibilities of the organization's personnel
education	tactical document that sets out specific tasks and methods to maintain security
security policy	user-awareness learning level that focuses on learning about topics and practices beyond what is typically required by the user's job
security standard	user-awareness learning level that focuses on security practices that all employees must understand and enforce
training	user-awareness learning level that focuses on teaching employees how to perform tasks specifically required by their jobs

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

awareness	document that outlines an organization's security goals and practices and the roles and responsibilities of the organization's personnel	<i>Security Standards</i>
education	tactical document that sets out specific tasks and methods to maintain security	<i>Security Policy</i>
security policy	user-awareness learning level that focuses on learning about topics and practices beyond what is typically required by the user's job	<i>Education</i>
security standard	user-awareness learning level that focuses on security practices that all employees must understand and enforce	<i>Awareness</i>
training	user-awareness learning level that focuses on teaching employees how to perform tasks specifically required by their jobs	<i>Training</i>

<https://www.ciscopress.com/articles/article.asp?p=1998559&seqNum=3>

NEW QUESTION 485

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:

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	

NEW QUESTION 488

- (Topic 4)

Which set of 2.4 GHz nonoverlapping wireless channels is standard in the United States?

- A. channels 2, 7, 9, and 11
- B. channels 1, 6, 11, and 14
- C. channels 2, 7, and 11
- D. channels 1, 6, and 11

Answer: D

Explanation:

In the United States, while channels 1-13 can be used for 2.4 GHz WiFi, only three channels are considered non-overlapping (channels 12 and 13 are allowed under low powered conditions, but for most cases are not used). For best results, it is highly recommended to keep the 2.4 GHz channels to 1, 6, and 11, as these channel settings will allow for virtually no overlap in the WiFi signal. Shown below is a channel graph from WiFi Scanner showing three access points configured for channels 1, 6, and 11. As you can see, the center of each signal is at 1, 6, and 11 with the actual signal extending over several channels to the left and right.

NEW QUESTION 490

DRAG DROP - (Topic 4)

Drag and drop the IPv6 address types from the left onto their description on the right.

2001:DB8::bced:1234:456d:aacc	multicast address used only locally within the site
FD00:0000:0000:1a2d:a153:3992:a19d:ccca	address that is automatically created on a link when IPv6 is enabled on an interface
FE80::abcf:ffff:12de:3992	address that is prohibited from routing to the Internet
FF05::23:befc:22:1111	address that is unique and reserved for documentation purposes

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

2001:DB8::bced:1234:456d:aacc	FF05::23:befc:22:1111
FD00:0000:0000:1a2d:a153:3992:a19d:ccca	FE80::abcf:ffff:12de:3992
FE80::abcf:ffff:12de:3992	FD00:0000:0000:1a2d:a153:3992:a19d:ccca
FF05::23:befc:22:1111	2001:DB8::bced:1234:456d:aacc

NEW QUESTION 491

- (Topic 4)
Refer to the exhibit.

The screenshot shows the configuration for Layer 3 AAA Servers. Under the 'Fast Transition' section, 'Fast Transition' is set to 'Adaptive', 'Over the DS' is checked, and 'Reassociation Timeout' is 20 seconds. Under 'Protected Management Frame', 'PMF' is set to 'Disabled'. Under 'WPA+WPA2 Parameters', 'WPA2 Policy' is checked, 'WPA2 Encryption' is set to 'AES', and 'OSSEN Policy' is unchecked. Under 'Authentication Key Management', '802.1X' is checked, 'CCKM', 'PSK', 'FT 802.1X', 'FT PSK', 'SUITEB-1X', and 'SUITEB192-1X' are unchecked, and 'WPA gtk-randomize State' is set to 'Disable'.

Clients on the WLAN are required to use 802.11r. What action must be taken to meet the requirement?

- A. Under Protected Management Frames, set the PMF option to Required.
- B. Enable CCKM under Authentication Key Management.
- C. Set the Fast Transition option and the WPA gtk-randomize State to disable.
- D. Set the Fast Transition option to Enable and enable FT 802.1X under Authentication Key Management.

Answer: D

NEW QUESTION 496

- (Topic 4)

Which two wireless security stewards use Counter Mode Cipher Block Chaining Message Authentication Code Protocol for encryption and data integrity? (Choose two.)

- A. WPA2
- B. WPA3
- C. Wi-Fi 6
- D. WEP
- E. WPA

Answer: BD

NEW QUESTION 498

- (Topic 4)

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

A)

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

B)

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

C)

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

D)

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

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

Answer: B

NEW QUESTION 501

- (Topic 4)

What is a reason why an administrator would choose to implement an automated network management approach?

- A. Reduce inconsistencies in the network configuration.
- B. Enable "box by box" configuration and deployment.
- C. Decipher simple password policies.
- D. Increase recurrent management costs.

Answer: A

NEW QUESTION 503

- (Topic 4)

Which enhancement is implemented in WPA3?

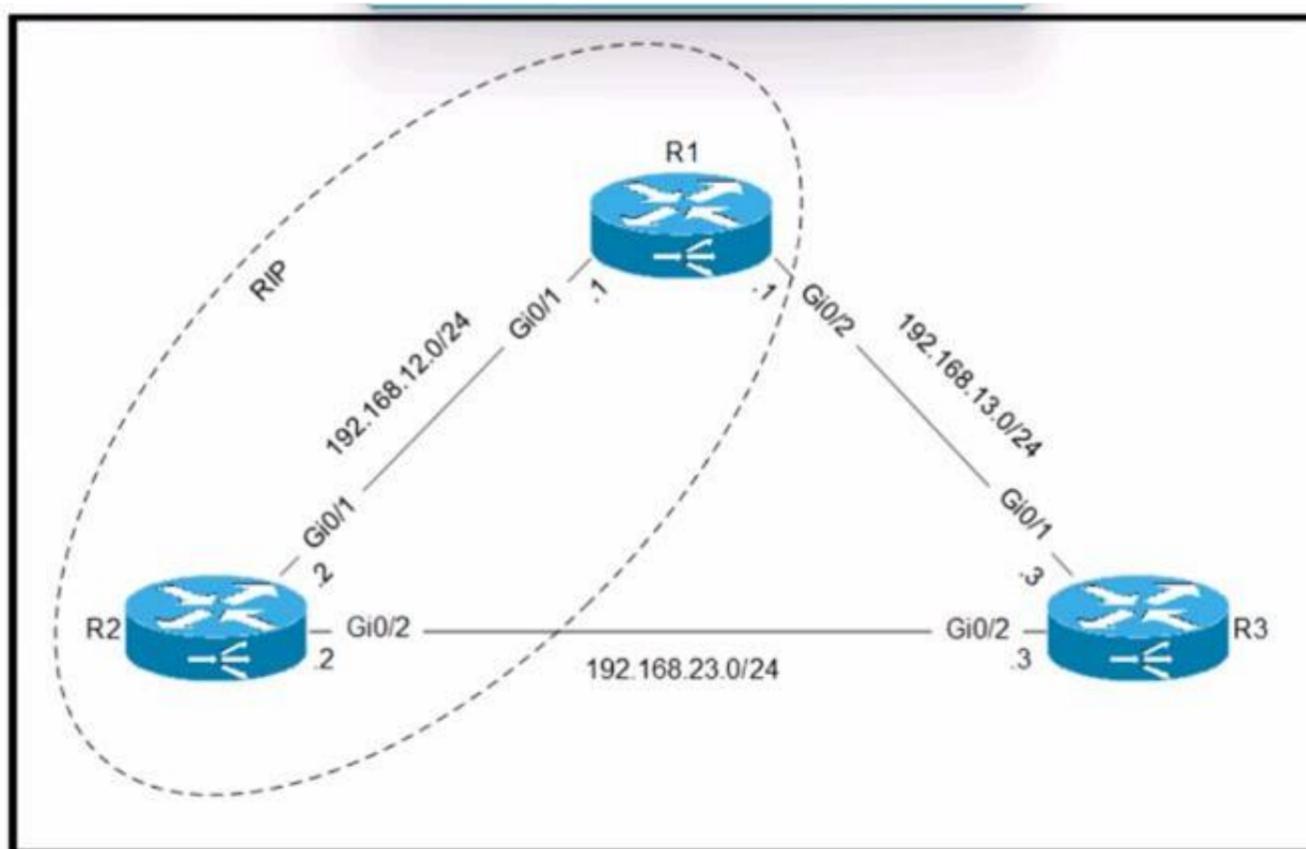
- A. applies 802.1x authentication
- B. uses TKIP
- C. employs PKI to identify access points
- D. protects against brute force attacks

Answer: D

NEW QUESTION 508

- (Topic 4)

Refer to the exhibit.



Routers R1 and R2 are configured with RIP as the dynamic routing protocol. A network engineer must configure R1 with a floating static route to serve as a backup route to network 192.168.23. Which command must the engineer configure on R1?

- A. ip route 192.168.23.0 255.255.255.0 192.168.13.3 100
- B. ip route 192.168.23.0 255.255.255.0 192.168.13.3 121
- C. ip route 192.168.23.0 255.255.255.255 192.168.13.3 121
- D. ip route 192.168.23.0 255.255.255.0 192.168.13.3

Answer: B

NEW QUESTION 513

DRAG DROP - (Topic 4)

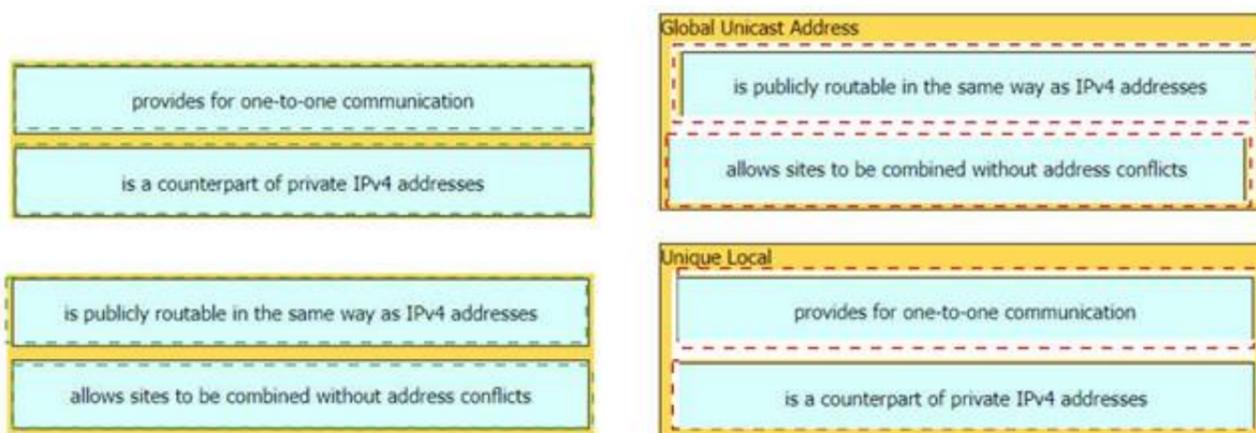
Drag and drop the characteristic from the left onto the IPv6 address type on the right.

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

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 516

- (Topic 4)

What is the purpose of classifying network traffic in QoS?

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

Answer: B

NEW QUESTION 519

- (Topic 4)

Which Cisco proprietary protocol ensures traffic recovers immediately, transparently, and automatically when edge devices or access circuits fail?

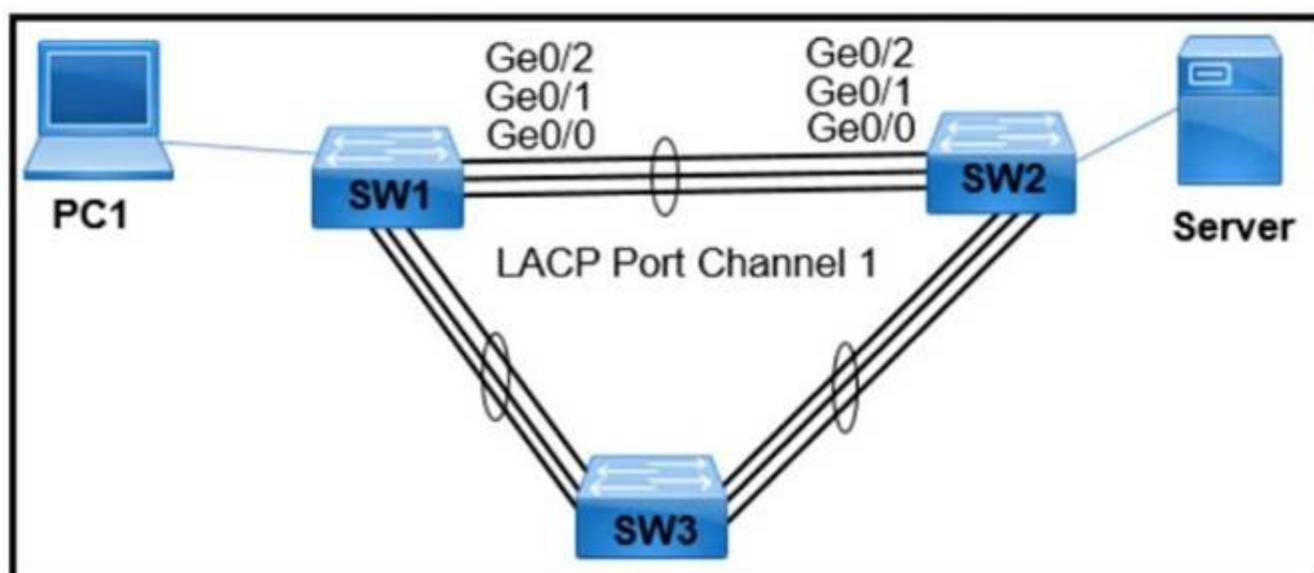
- A. SLB
- B. FHRP
- C. VRRP
- D. HSRP

Answer: D

NEW QUESTION 523

- (Topic 4)

Refer to the exhibit.



PC1 regularly sends 1800 Mbps of traffic to the server. A network engineer needs to configure the EtherChannel to disable Port Channel 1 between SW1 and SW2 when the Ge0/0 and Ge0/1 ports on SW2 go down. Which configuration must the engineer apply to the switch?

A)

```
SW2# configure terminal
SW2(config)# interface port-channel 1
SW2(config-if)# lacp port-priority 32000
```

B)

```
SW2# configure terminal
SW2(config)# interface port-channel 1
SW2(config-if)# lacp max-bundle 2
```

C)

```
SW2# configure terminal
SW2(config)# lacp system-priority 32000
```

D)

```
SW2# configure terminal
SW2(config)# interface port-channel 1
SW2(config-if)# port-channel min-links 2
```

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

Answer: D

NEW QUESTION 528

- (Topic 4)

What is the role of SNMP in the network?

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

Answer: C

NEW QUESTION 529

- (Topic 4)

What is the default port-security behavior on a trunk link?

- A. It causes a network loop when a violation occurs.
- B. It disables the native VLAN configuration as soon as port security is enabled.
- C. It places the port in the err-disabled state if it learns more than one MAC address.
- D. It places the port in the err-disabled slate after 10 MAC addresses are statically configured.

Answer: A

NEW QUESTION 531

- (Topic 4)

Refer to the exhibit.



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

```
Sw1#show mac-address table
Mac Address Table
```

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

Sw1#

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

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

Answer: C

NEW QUESTION 536

- (Topic 4)

Which type of port is used to connect to the wired network when an autonomous AP maps two VLANs to its WLANs?

- A. LAG
- B. EtherChannel
- C. trunk
- D. access

Answer: C

NEW QUESTION 537

DRAG DROP - (Topic 4)

Drag and drop the Cisco IOS attack mitigation features from the left onto the types of network attack they mitigate on the right.

DHCP snooping	rogue server that spoofs IP configuration
Dynamic ARP Inspection	cache poisoning
IP Source Guard	flood attacks
storm control	rogue clients on the network

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

DHCP snooping	IP Source Guard
Dynamic ARP Inspection	Dynamic ARP Inspection
IP Source Guard	storm control
storm control	DHCP snooping

NEW QUESTION 539

- (Topic 4)

```

R1#show run
Building configuration...
!
interface GigabitEthernet0/0.2
 encapsulation dot1Q 2
 ip address 10.10.10.10 255.255.255.0
!
end
    
```

A)

```

interface GigabitEthernet0/0
 ip address 10.10.2.10 255.255.252.0
    
```

B)

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

C)

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

D)

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

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

Answer: C

NEW QUESTION 541

DRAG DROP - (Topic 4)

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

confined to a single link	Multicast
provides one-to-many communications	
serves as the next-hop addresses	Link-Local Address
cannot be used as a source address	

- A. Mastered
- B. Not Mastered

Answer: A

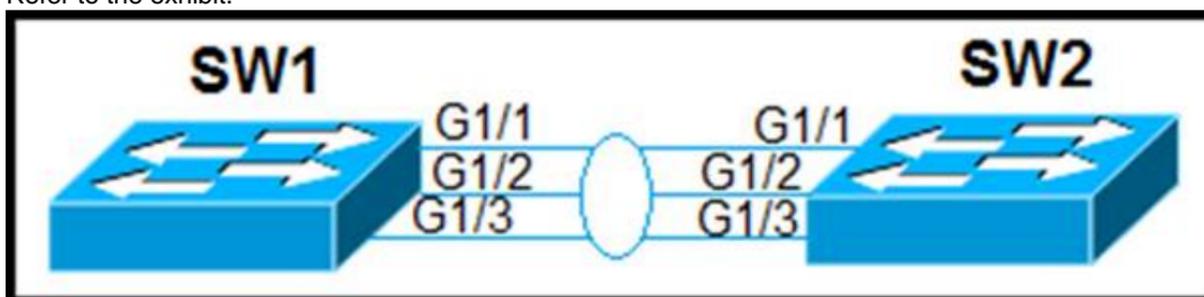
Explanation:

confined to a single link	Multicast
provides one-to-many communications	confined to a single link
serves as the next-hop addresses	provides one-to-many communications
cannot be used as a source address	Link-Local Address
	serves as the next-hop addresses
	cannot be used as a source address

NEW QUESTION 543

- (Topic 4)

Refer to the exhibit.



Which configuration establishes a Layer 2 LACP EtherChannel when applied to both switches?

- A. Interface range G1/1 – 1/3 switchport mode trunk channel-group 1 mode active no shutdown
- B. Interface range G1/1 – 1/3 switchport mode access channel-group 1 mode passive no shutdown
- C. Interface range G1/1 – 1/3 switchport mode trunk channel-group 1 mode desirable no shutdown
- D. Interface range G1/1 – 1/3 switchport mode access channel-group 1 mode on no shutdown

Answer: A

NEW QUESTION 544

- (Topic 4)

Why would a network administrator choose to implement automation in a network environment?

- A. To simplify the process of maintaining a consistent configuration state across all devices
- B. To centralize device information storage
- C. To implement centralized user account management
- D. To deploy the management plane separately from the rest of the network

Answer: A

NEW QUESTION 548

- (Topic 4)

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

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

Answer: B

NEW QUESTION 553

- (Topic 4)

Which device segregates a network into separate zones that have their own security policies?

- A. IPS
- B. firewall
- C. access point
- D. switch

Answer: C

NEW QUESTION 557

- (Topic 4)

Which type of encryption does WPA1 use for data protection?

- A. AES
- B. TKIP
- C. PEAP
- D. EAP

Answer: B

NEW QUESTION 561

- (Topic 4)

Which access point mode relies on a centralized controller for management, roaming, and SSID configuration?

- A. repeater mode
- B. autonomous mode
- C. bridge mode
- D. lightweight mode

Answer: D

NEW QUESTION 563

- (Topic 4)

An engineer is configuring switch SW1 to act an NTP server when all upstream NTP server connectivity fails. Which configuration must be used?

A)

```
SW1# config t
SW1(config)#ntp peer 192.168.1.1
SW1(config)#ntp access-group peer accesslist1
```

B)

```
SW1# config t
SW1(config)#ntp master
SW1(config)#ntp server 192.168.1.1
```

C)

```
SW1# config t
SW1(config)#ntp server 192.168.1.1
SW1(config)#ntp access-group server accesslist1
```

D)

```
SW1# config t
SW1(config)#ntp backup
SW1(config)#ntp server 192.168.1.1
```

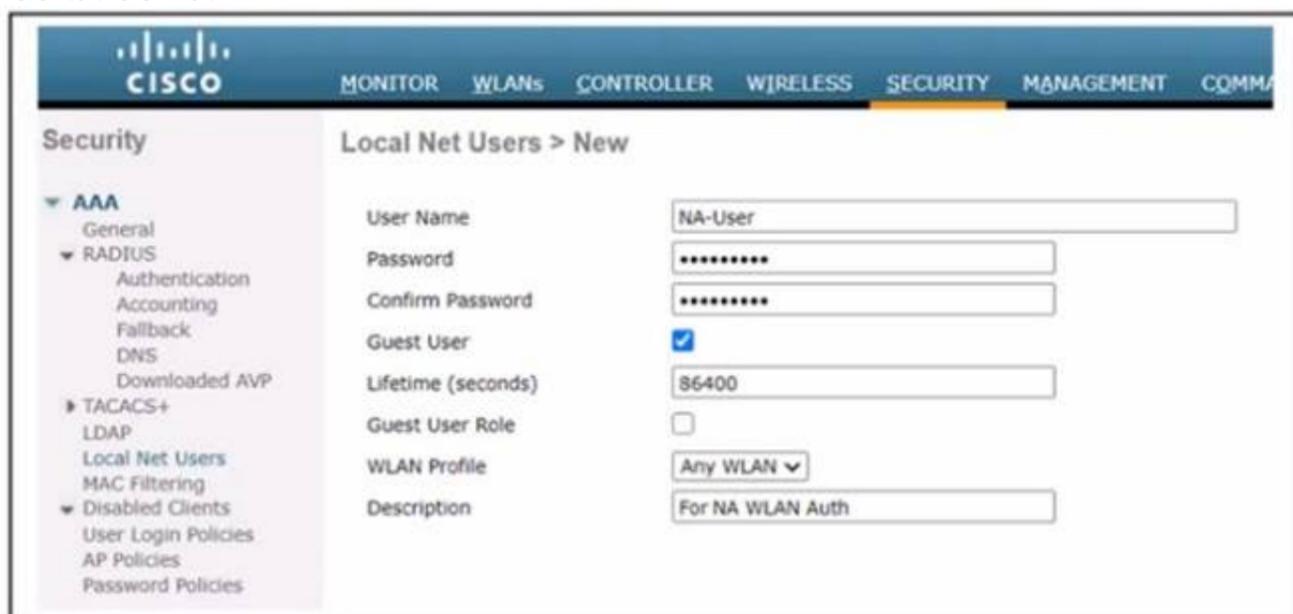
- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

NEW QUESTION 566

- (Topic 4)

Refer to the exhibit.



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

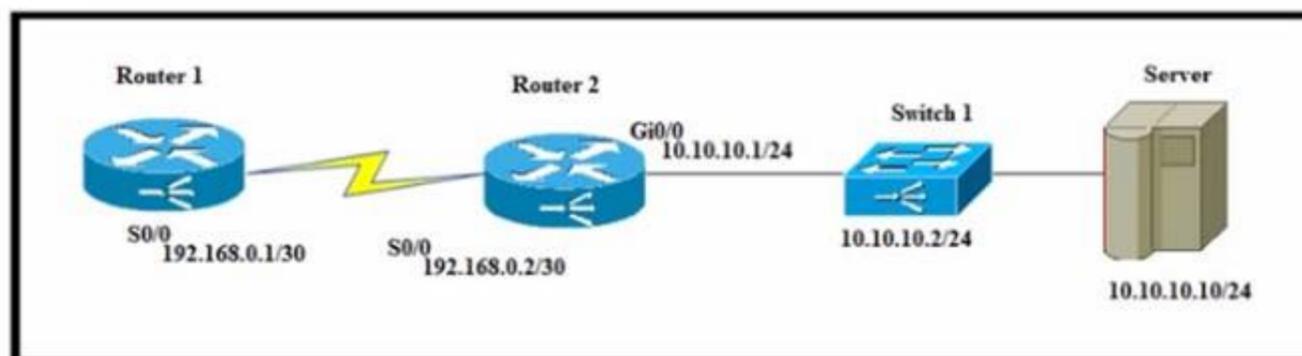
- A. Uncheck the Guest User check box
- B. Check the Guest User Role check box
- C. Set the Lifetime (seconds) value to 0
- D. Clear the Lifetime (seconds) value

Answer: C

NEW QUESTION 568

- (Topic 4)

Refer to the exhibit.



A network engineer must configure router R1 with a host route to the server. Which command must the engineer configure?

- A. R1(config)#ip route 10.10.10.0 255.255.255.0 192.168.0.2
- B. R1(Config)#ip route 10.10.10.10 265.255.255.255 192 168.0.2
- C. R1(config)#ip route 192.168.0.2 255.255.255.255 10.10.10.10
- D. R1(config)#ip route 0.0.0.0 0.0 0.0 192 168.0.2

Answer: B

NEW QUESTION 570

- (Topic 4)

Refer to the exhibit.

When router R1 receives a packet with destination IP address 10.56.0 62. through which interface does it route the packet?

- A. Null0
- B. Vlan58
- C. Vlan60
- D. Vlan59

Answer: B

NEW QUESTION 571

DRAG DROP - (Topic 4)

Drag and drop the characteristics of northbound APIs from the left onto any position on the right. Not all characteristics are used.

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

NEW QUESTION 574

- (Topic 4)

What are two functions of DHCP servers? (Choose two.)

- A. prevent users from assigning their own IP addresses to hosts
- B. assign dynamic IP configurations to hosts in a network
- C. support centralized IP management
- D. issue DHCPDISCOVER messages when added to the network
- E. respond to client DHCPOFFER requests by issuing an IP address

Answer: BC

NEW QUESTION 579

- (Topic 4)

Refer to the exhibit.

```
R1# show ip route
....
D    172.16.32.0/27 [90/2888597172] via 20.1.1.1
O    172.16.32.0/19 [110/292094]   via 20.1.1.10
R    172.16.32.0/24 [120/2]       via 20.1.1.3
```

An engineer executed the script and added commands that were not necessary for SSH and now must remove the commands.

- A. metric
- B. cost
- C. longest prefix
- D. administrative distance

Answer: D

NEW QUESTION 583

- (Topic 4)

What is a specification for SSIDS?

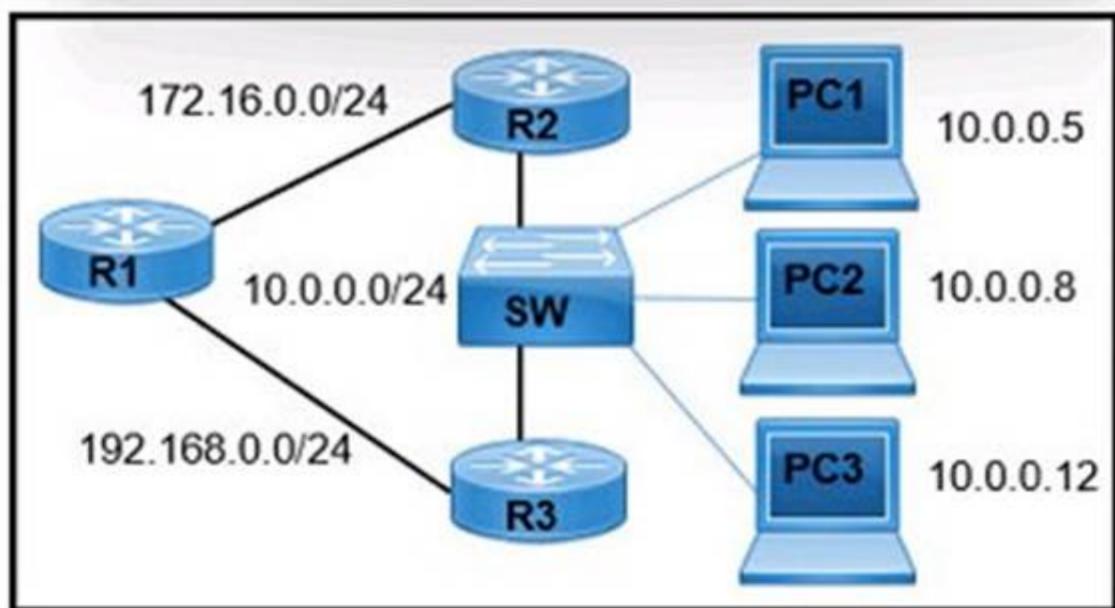
- A. They are a Cisco proprietary security feature.
- B. They must include one number and one letter.
- C. They define the VLAN on a switch.
- D. They are case sensitive.

Answer: B

NEW QUESTION 584

- (Topic 4)

Refer to the exhibit.



A network engineer must configure R1 so that it sends all packets destined to the 10.0.0.0/24 network to R3, and all packets destined to PC1 to R2. Which configuration must the engineer implement?

- A)


```
R1(config)#ip route 10.0.0.0 255.255.255.0 172.16.0.2
R1(config)#ip route 10.0.0.5 255.255.255.255 192.168.0.2
```
- B)


```
R1(config)#ip route 10.0.0.0 255.255.0.0 172.16.0.2
R1(config)#ip route 10.0.0.5 255.255.255.255 192.168.0.2
```
- C)


```
R1(config)#ip route 10.0.0.0 255.255.255.0 192.168.0.2
R1(config)#ip route 10.0.0.5 255.255.255.255 172.16.0.2
```
- D)


```
R1(config)#ip route 10.0.0.0 255.255.0.0 192.168.0.2
R1(config)#ip route 10.0.0.0 255.255.255.0 172.16.0.2
```

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

Answer: C

NEW QUESTION 588

- (Topic 4)

A Cisco engineer notices that two OSPF neighbors are connected using a crossover Ethernet cable. The neighbors are taking too long to become fully adjacent. Which command must be issued under the interface configuration on each router to reduce the time required for the adjacency to reach the FULL state?

- A. ip ospf network broadcast
- B. ip ospf dead-interval 40
- C. ip ospf network point-to-point
- D. ip ospf priority 0

Answer: C

NEW QUESTION 593

DRAG DROP - (Topic 4)

Drag and drop 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
uses a lower transmission rate to ensure reliability	
transmits packets as a stream	
transmits packets individually	UDP
transmissions include an 8-byte header	
uses a higher transmission rate to support latency-sensitive applications	

NEW QUESTION 594

FILL IN THE BLANK - (Topic 4)

A network architect is deciding whether to implement Cisco autonomous access points or lightweight access points. Which fact about firmware updates must the architect consider?

- A. Unlike lightweight access points, which require
- B. Unlike lightweight access points, which require redundant WLCs to support firmware upgrades, autonomous access points require only one WLC.
- C. Unlike autonomous access points, lightweight access points store a complete copy of the current firmware for backup.
- D. Unlike lightweight access points, autonomous access points can recover automatically from a corrupt firmware update.
- E. Unlike autonomous access points, lightweight access points require a WLC to implement remote firmware updates.

Answer: D

NEW QUESTION 595

- (Topic 4)

Refer to the exhibit.

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

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

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

Answer: B

NEW QUESTION 596

- (Topic 4)

What describes a northbound REST API for SON?

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

Answer: D

NEW QUESTION 600

- (Topic 4)

What is the temporary state that switch ports always enter immediately after the boot process when Rapid PVST+ is used?

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

Answer: A

Explanation:

When Rapid PVST+ is used, switch ports always enter the blocking state immediately after the boot process. The blocking state is the first of the five possible port states in the Rapid PVST+ protocol. In this state, the port does not forward frames but listens to BPDUs to determine the location of the root bridge and the best path to reach it. After a port enters the blocking state, it transitions to the listening state and then to the learning state before finally entering the forwarding state. When Rapid PVST+ (Per-VLAN Spanning Tree Plus) is used, switch ports go through a specific state immediately after the boot process. This state is known as the "discarding" state.

NEW QUESTION 602

DRAG DROP - (Topic 4)

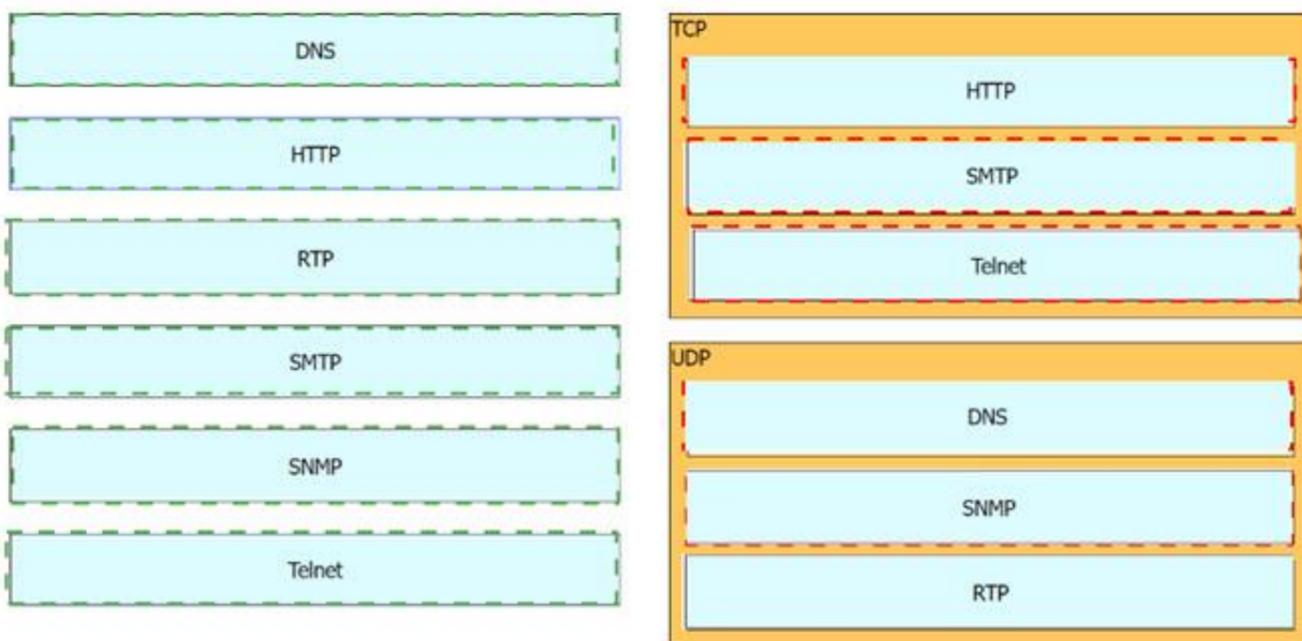
An engineer must configure a core router with a floating static default route to the backup router at 10.200.0.2.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 604

- (Topic 4)

Refer to the exhibit.



A network engineer configures the Cisco WLC to authenticate local wireless clients against a RADIUS server Which task must be performed to complete the process?

- A. Change the Server Status to Disabled
- B. Select Enable next to Management
- C. Select Enable next to Network User
- D. Change the Support for CoA to Enabled.

Answer: C

NEW QUESTION 605

- (Topic 4)

Refer to the exhibit.

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

Management Addresses:
IP: 10.5.110.2
```

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

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

Answer: A

NEW QUESTION 609

- (Topic 4)

Which two VPN technologies are recommended by Cisco for multiple branch offices and large-scale deployments? (Choose two.)

- A. site-to-site VPN
- B. IDMPVPN
- C. IGETVPN
- D. IPsec remote access
- E. clientless VPN

Answer: BE

NEW QUESTION 611

- (Topic 4)

Refer to the exhibit.

```
{
  "attributes": {
    "pwd": "password1",
    "firstName": "Abraham",
    "lastName": "Lincoln",
    "phone": "5555551212",
    "email": "test@cisco.com"
  },
  "children": [{
    "aaaUserDomain": {
      "attributes": {
        "name": "ExampleCisco"
      },
      "children": [{
        "aaaUserRole": {
          "attributes": {
            "name": "admin"
          }
        }
      ]
    }
  ]
}
```

How many objects are present in the given JSON-encoded data?

- A. one
- B. four
- C. seven
- D. nine

Answer: B

NEW QUESTION 613

- (Topic 4)

What are two characteristics of a small office / home office connection environment? (Choose two.)

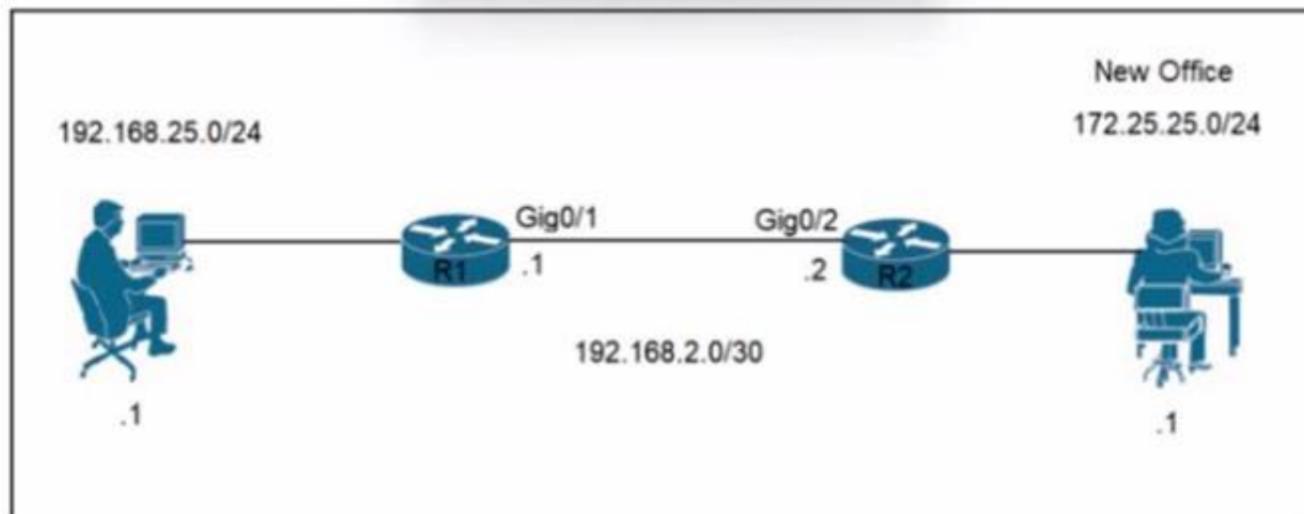
- A. It requires 10Gb ports on all uplinks.
- B. It supports between 50 and 100 users.
- C. It supports between 1 and 50 users.
- D. It requires a core, distribution, and access layer architecture.
- E. A router port connects to a broadband connection.

Answer: CE

NEW QUESTION 617

- (Topic 4)

Refer to the exhibit.



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

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

Answer: C

NEW QUESTION 619

- (Topic 4)

What is a benefit of a point-to-point leased line?

- A. flexibility of design
- B. simplicity of configurator
- C. low cost
- D. full-mesh capability

Answer: B

NEW QUESTION 621

- (Topic 4)

Which protocol must be implemented to support separate authorization and authentication solutions for wireless APs?

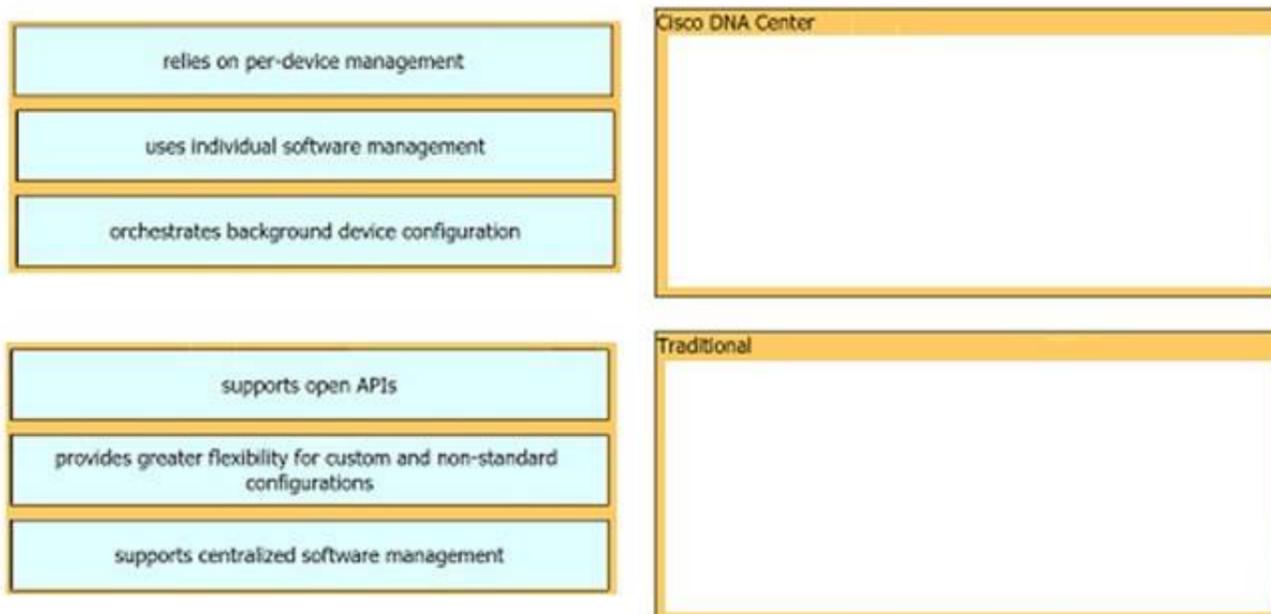
- A. RADIUS
- B. TACACS+
- C. 802.1X
- D. Kerberos

Answer: A

NEW QUESTION 626

DRAG DROP - (Topic 4)

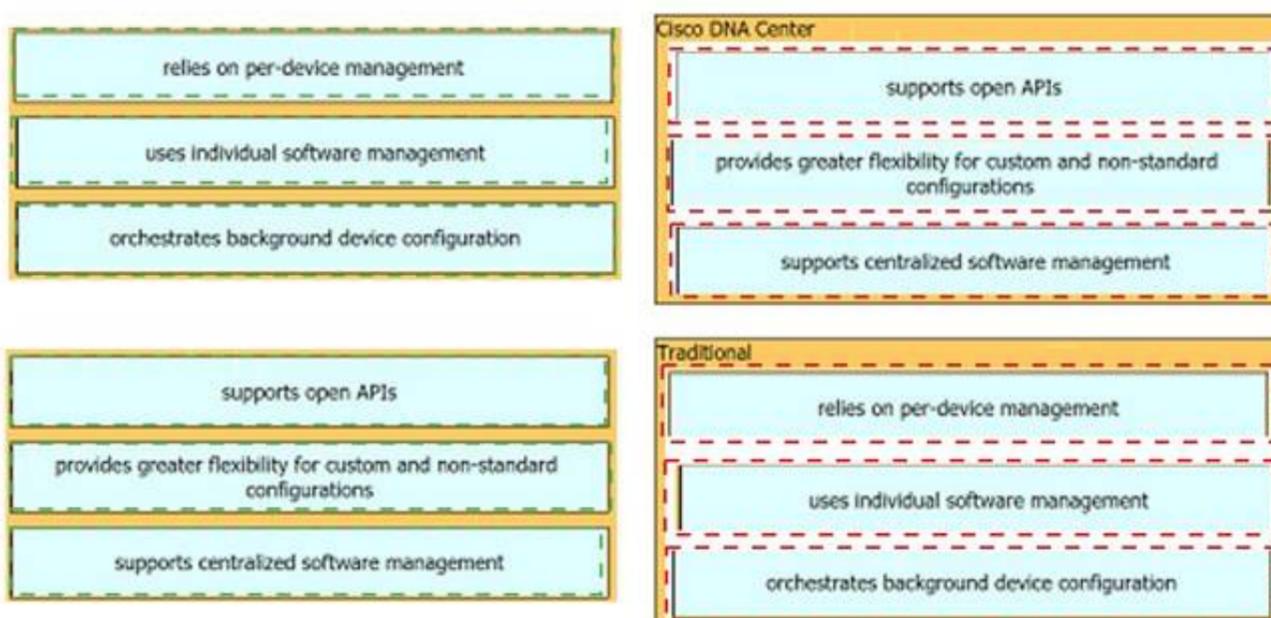
Drag and drop each characteristic of device-management technologies from the left onto the deployment type on the right.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 627

- (Topic 4)

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

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

Answer: B

NEW QUESTION 630

- (Topic 4)

Refer to the exhibit.

```

R1
interface GigabitEthernet0/1
 ip address 192.168.12.1 255.255.255.128
 no shutdown
router ospf 1
 network 192.168.12.1 0.0.0.0 area 1

R2
interface GigabitEthernet0/1
 ip address 192.168.12.2 255.255.255.128
 no shutdown
    
```

A network engineer started to configure two directly-connected routers as shown. Which command sequence must the engineer configure on R2 so that the two routers become OSPF neighbors?

- A)


```

router ospf 1
 network 192.168.12.1 0.0.0.0 area 1
      
```
- B)


```

interface GigabitEthernet0/1
 ip ospf 1 area 1
      
```
- C)


```

interface GigabitEthernet0/1
 ip ospf 1 area 0
      
```
- D)


```

router ospf 1
 network 192.168.12.0 0.0.0.127 area 0
      
```

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

Answer: D

NEW QUESTION 635

DRAG DROP - (Topic 4)

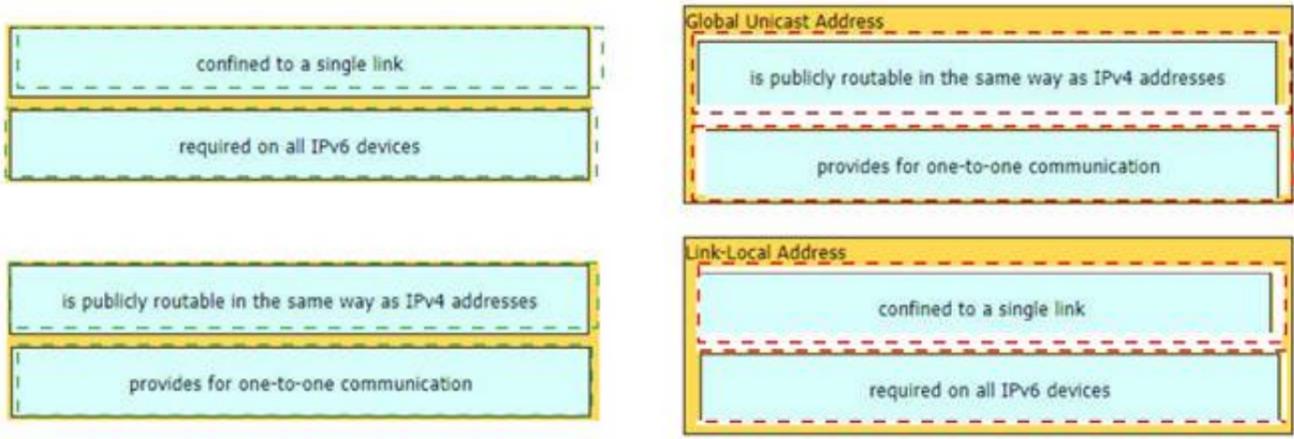
Drag and drop the characteristic from the left onto the IPv6 address type on the right.

confined to a single link	Global Unicast Address
required on all IPv6 devices	
is publicly routable in the same way as IPv4 addresses	Link-Local Address
provides for one-to-one communication	

A.

Answer: B

Explanation:



614. - (Topic 4)
Refer to the exhibit.

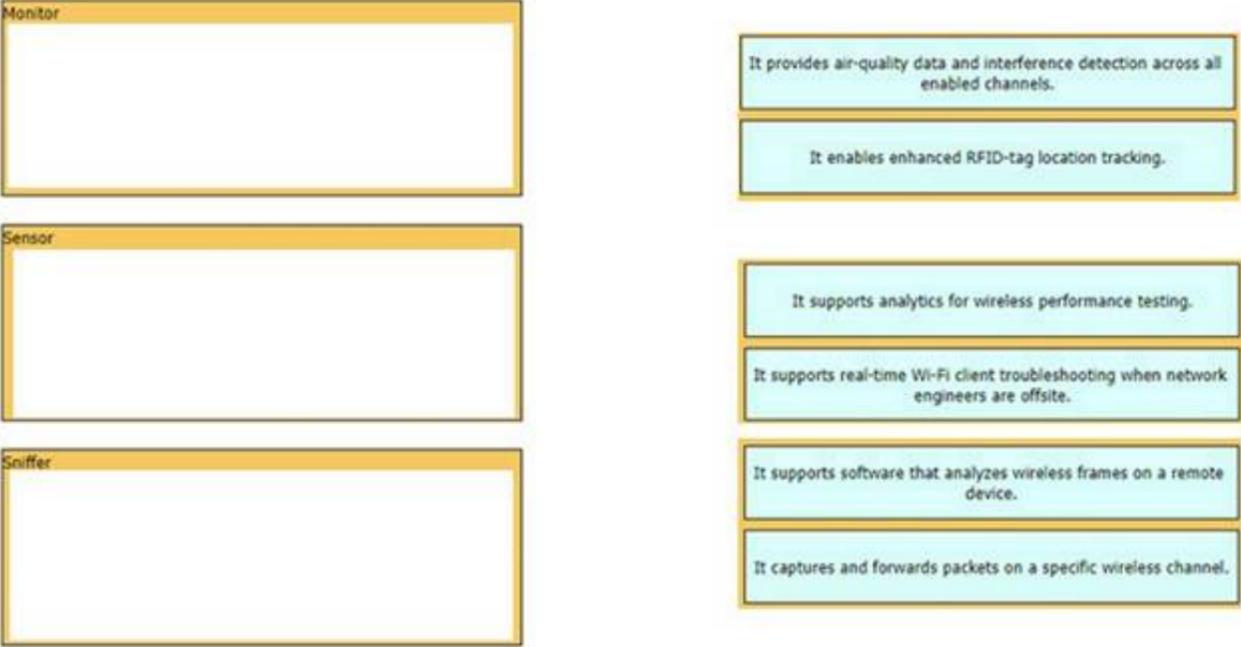
```

router# show ip route
....
D 172.18.32.0/26 [90/25789217] via 10.1.1.1
R 172.18.32.0/24 [120/4] via 10.1.1.2
O 172.18.32.0/19 [110/229840] via 10.1.1.3
C 172.18.32.32/32 is directly connected, Loopback0
C 172.18.32.36/30 is directly connected, GigabitEthernet0/0
L 172.18.32.37/32 is directly connected, GigabitEthernet0/0
    
```

A packet sourced from 172.18.33.2 is destined for 172.18.32.38. Where does the router forward the packet?
 A. GigabitEthernet0/0
 B. Loopback0
 C. 10.1.1.1
 D. 10.1.1.3

NEW QUESTION 637

DRAG DROP - (Topic 4)
 Drag and drop the statements about access-point modes from the left onto the corresponding modes on the right.



A. Mastered
 B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 642

- (Topic 4)

Company has decided to require multifactor authentication for all systems. Which set of parameters meets the requirement?

- A. personal 10-digit PIN and RSA certificate
- B. complex password and personal 10-digit PIN
- C. password of 8 to 15 characters and personal 12-digit PIN
- D. fingerprint scanning and facial recognition

Answer: A

Explanation:

the set of parameters that meets the requirement for MFA is option A, personal 10-digit PIN and RSA certificate. A personal 10-digit PIN is something the user knows, and an RSA certificate is something the user has. An RSA certificate is a digital certificate that uses the RSA algorithm for encryption and digital signatures³.

NEW QUESTION 647

- (Topic 4)

An on-site service desk technician must verify the IP address and DNS server information on a users Windows computer. Which command must the technician enter at the command prompt on the user's computer?

- A. ipconfig /all
- B. ifconfig -a
- C. show interface
- D. netstat -r

Answer: A

Explanation:

The ipconfig /all command displays the configuration information of all the network adapters on a Windows computer, including the IP address, subnet mask, default gateway, and DNS server information¹². This command can help troubleshoot network connectivity and DNS resolution issues.

NEW QUESTION 649

- (Topic 4)

How does encryption protect the wireless network?

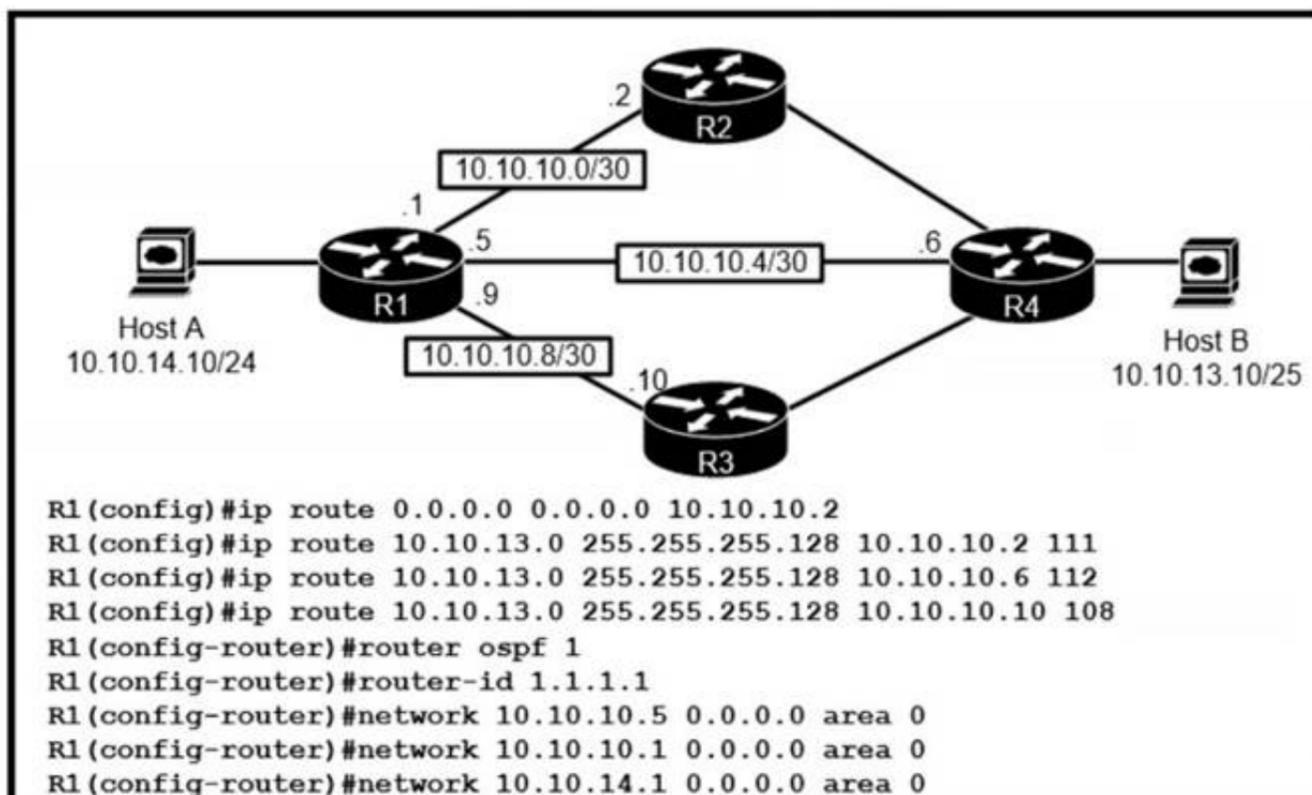
- A. via integrity checks to identify wireless forgery attacks in the frame
- B. via specific ciphers to detect and prevent zero-day network attacks
- C. via an algorithm to change wireless data so that only the access point and client understand it
- D. via a policy to prevent unauthorized users from communicating on the wireless network

Answer: C

NEW QUESTION 653

- (Topic 4)

Refer to the exhibit.



R1 has just received a packet from host A that is destined to host B. Which route in the routing table is used by R1 to reach B?

- A. 10.10.13.0/25 [108/0] via 10.10.10.10
- B. 10.10.13.0/25 [110/2] via 10.10.10.2
- C. 10.10.13.0/25 [110/2] via 10.10.10.6
- D. 10.10.13.0/25 [1/0] via 10.10.10.2

Answer: D

NEW QUESTION 656

- (Topic 4)

Which capability does TFTP provide?

- A. loads configuration files on systems without data storage devices
- B. provides authentication for data communications over a private data network
- C. provides encryption mechanisms for file transfer across a WAN
- D. provides secure file access within the LAN

Answer: A

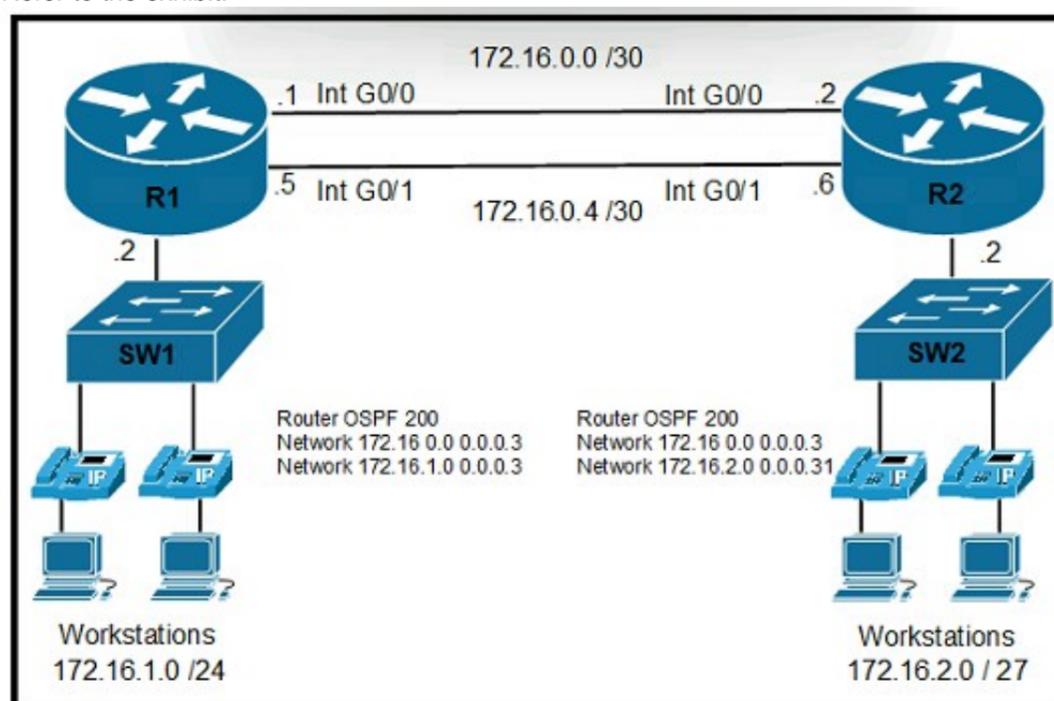
Explanation:

TFTP (Trivial File Transfer Protocol) is a simple file transfer protocol that is often used to transfer configuration files or firmware to network devices, such as routers or switches, during the boot process. TFTP is lightweight and lacks advanced features like authentication or encryption, making it suitable for basic file transfer operations in situations where security is not a primary concern. Therefore, option A accurately describes one of the primary capabilities of TFTP. It is commonly used to load configuration files onto systems, particularly those without extensive data storage devices, during the initialization or configuration process.

NEW QUESTION 659

- (Topic 4)

Refer to the exhibit.



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

A)

R1
ip route 172.16.2.0 255.255.255.240 172.16.0.2 113

R2
ip route 172.16.1.0 255.255.255.0 172.16.0.1 114

B)

R1
ip route 172.16.2.0 255.255.255.240 172.16.0.5 89

R2
ip route 172.16.1.0 255.255.255.0 172.16.0.6 89

C)

R1
ip route 172.16.2.0 255.255.255.248 172.16.0.5 110

R2
ip route 172.16.1.0 255.255.255.0 172.16.0.6 110

D)

R1
ip route 172.16.2.0 255.255.255.224 172.16.0.6 111

R2
ip route 172.16.1.0 255.255.255.0 172.16.0.5 112

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

Answer: D

NEW QUESTION 661

DRAG DROP - (Topic 4)

Drag and drop the AAA features from the left onto the corresponding AAA security services on the right. Not all options are used.

Answer Area

It enables the device to allow user- or group-based access.	Accounting <div style="background-color: yellow; height: 20px; width: 100%;"></div> <div style="background-color: yellow; height: 20px; width: 100%;"></div>
It leverages a RADIUS server to grant user access to a reverse Telnet session.	
It records the amount of time for which a user accesses the network on a remote server.	Authorization <div style="background-color: yellow; height: 20px; width: 100%;"></div> <div style="background-color: yellow; height: 20px; width: 100%;"></div>
It restricts the CLI commands that a user can perform.	
It uses TACACS+ to log the configuration commands entered by a network administrator.	
It verifies the user and password before granting access to the device.	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer Area

It enables the device to allow user- or group-based access.	Accounting It records the amount of time for which a user accesses the network on a remote server. It uses TACACS+ to log the configuration commands entered by a network administrator.
It leverages a RADIUS server to grant user access to a reverse Telnet session.	
It records the amount of time for which a user accesses the network on a remote server.	
It restricts the CLI commands that a user can perform.	
It uses TACACS+ to log the configuration commands entered by a network administrator.	
It verifies the user and password before granting access to the device.	
	Authorization It leverages a RADIUS server to grant user access to a reverse Telnet session. It restricts the CLI commands that a user can perform.

NEW QUESTION 663

- (Topic 4)
Refer to the exhibit.

```

R1#sho 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
       o - ODR, P - periodic downloaded static route, H - NHRP, l - LISP
       + - replicated route, † - next hop override

Gateway of last resort is 10.56.0.1 to network 0.0.0.0

S*   0.0.0.0/0 [1/0] via 10.56.0.1
     10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C     10.56.0.0/17 is directly connected, Vlan56
L     10.56.0.19/32 is directly connected, Vlan56
C     10.56.128.0/18 is directly connected, Vlan57
L     10.56.128.19/32 is directly connected, Vlan57
    
```

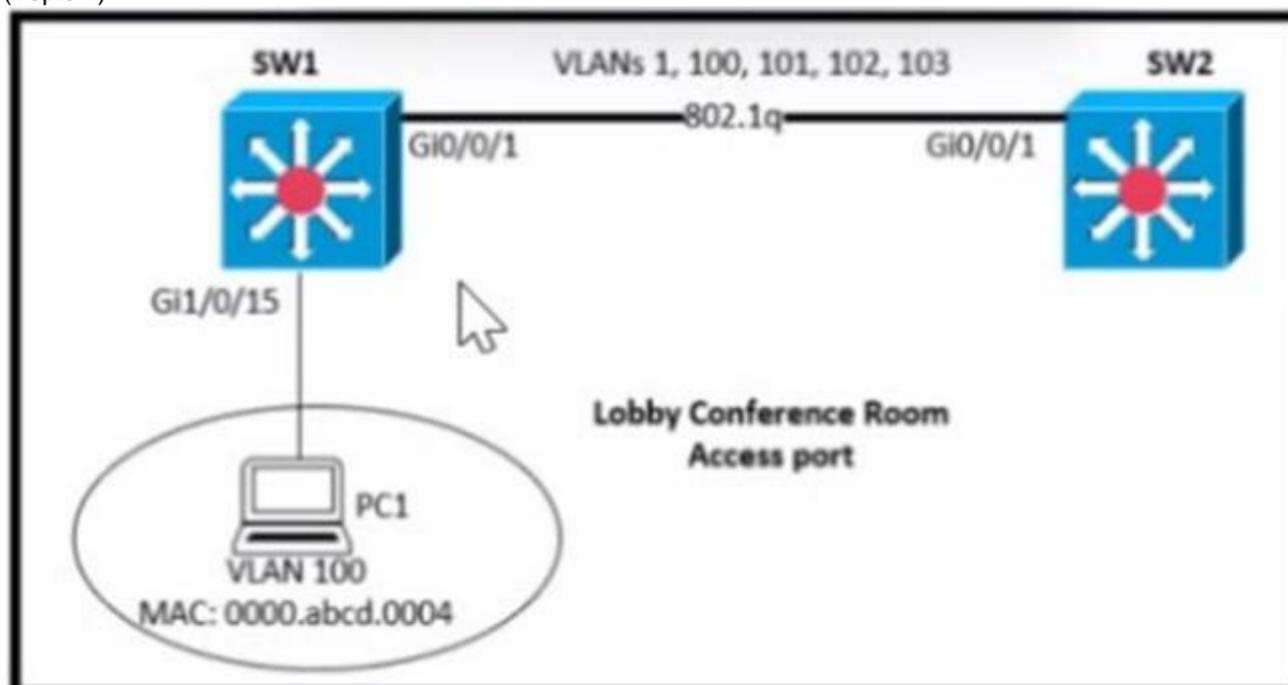
When router R1 is sending traffic to IP address 10.56.192.1, which interface or next hop address does it use to route the packet?

- A. 0.0.0.0/0
- B. 10.56.0.1
- C. 10.56.128.19
- D. Vlan57

Answer: B

NEW QUESTION 664

- (Topic 4)



SW1 supports connectivity for a lobby conference room and must be secured. The engineer must limit the connectivity from PC1 to the SW1 and SW2 network.

The MAC addresses allowed must be Limited to two. Which configuration secures the conference room connectivity?

A)

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

B)

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

C)

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

D)

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

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

Answer: B

NEW QUESTION 669

- (Topic 4)

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

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

Answer: C

NEW QUESTION 673

- (Topic 4)

Refer to the exhibit.

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

How many JSON objects are presented?

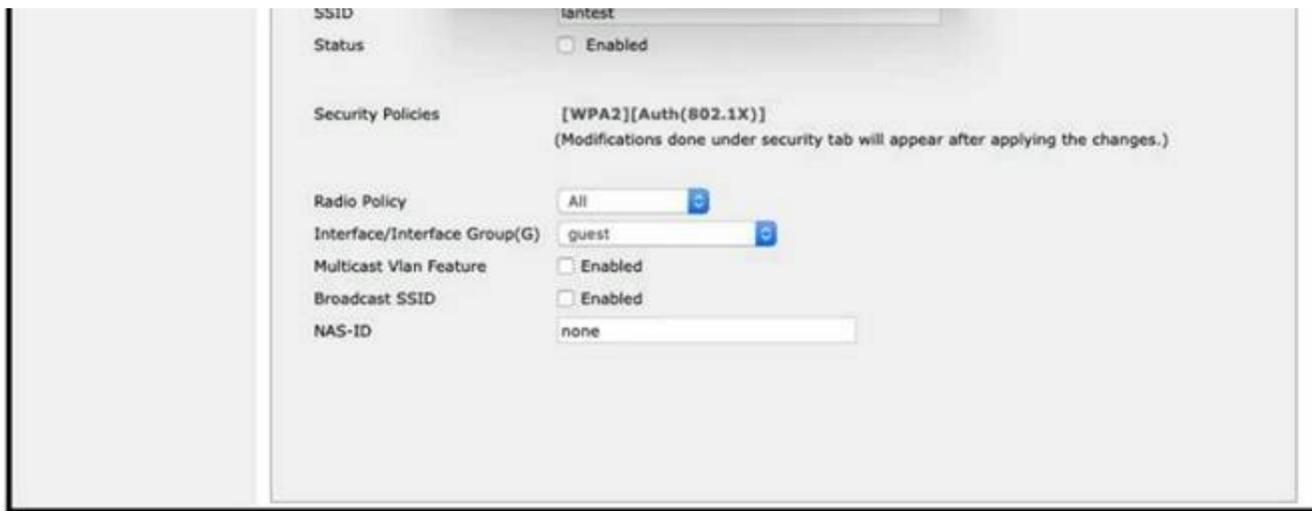
- A. 1
- B. 2
- C. 3
- D. 4

Answer: D

NEW QUESTION 676

- (Topic 4)

Refer to the exhibit.



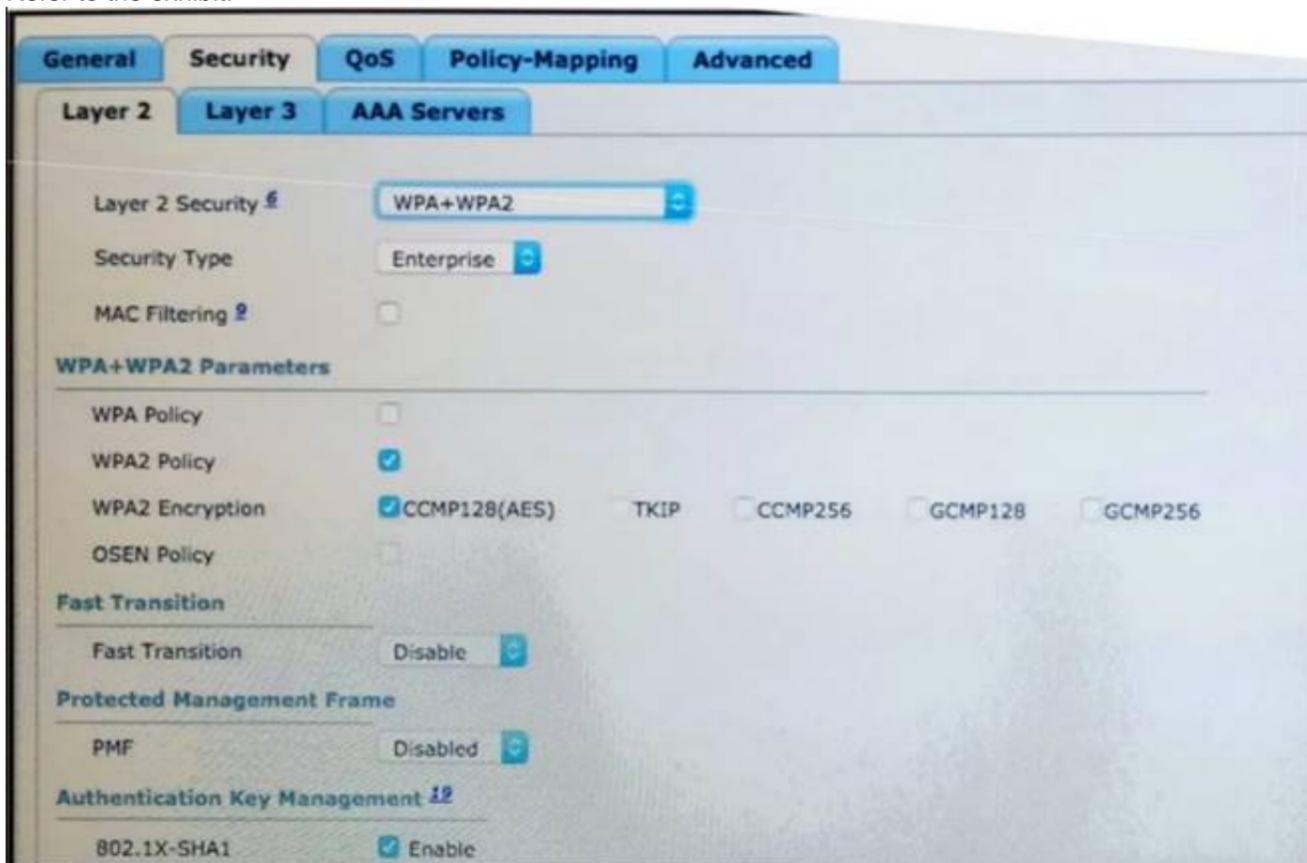
A Cisco engineer creates a new WLAN called lantest. Which two actions must be performed so that only high-speed 2.4-Ghz clients connect? (Choose two.)

- A. Enable the Broadcast SSID option
- B. Enable the Status option.
- C. Set the Radio Policy option to 802.11g Only.
- D. Set the Radio Policy option to 802.11a Only.
- E. Set the Interface/Interface Group(G) to an interface other than guest

Answer: AB

NEW QUESTION 679

- (Topic 4)
Refer to the exhibit.



What must be configured to enable 802.11w on the WLAN?

- A. Set PMF to Required.
- B. Enable MAC Filtering.
- C. Enable WPA Policy.
- D. Set Fast Transition to Enabled

Answer: A

NEW QUESTION 680

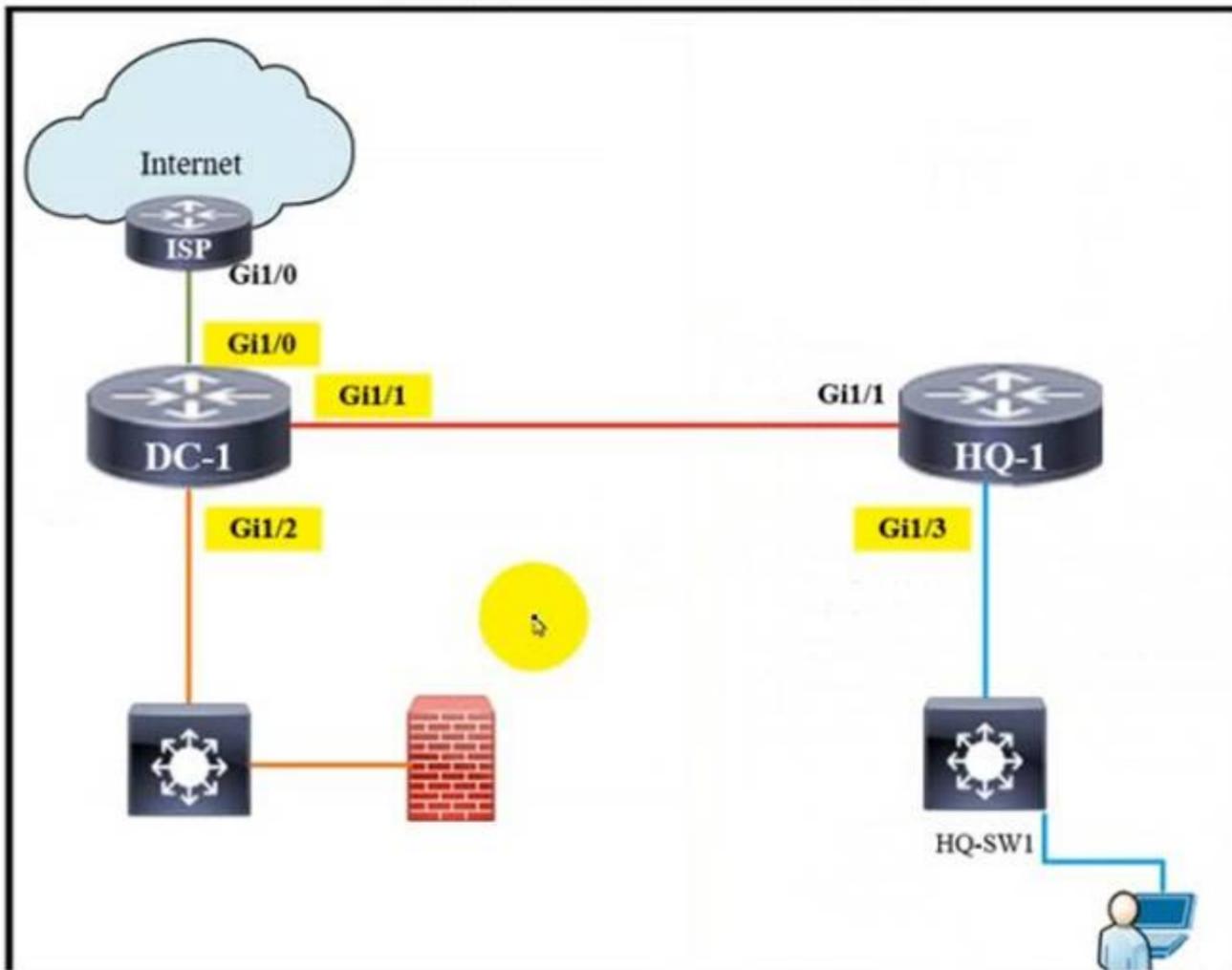
- (Topic 4)
Which WPA mode uses PSK authentication?

- A. Local
- B. Client
- C. Enterprise
- D. Personal

Answer: C

NEW QUESTION 685

DRAG DROP - (Topic 4)
Refer to Exhibit.



Rotor to the exhibit. The IP address configurations must be completed on the DC-1 and HQ-1 routers based on these requirements:
 DC-1 Gi1/0 must be the last usable address on a /30 DC-1 Gi1/1 must be the first usable address on a /29 DC-1 Gi1/2 must be the last usable address on a /28
 HQ-1 Gi1/3 must be the last usable address on a /29
 Drag and drop the commands from the left onto the destination interfaces on the right. Not all commands are used

ip address 192.168.4.9 255.255.255.248	DC-1	Gi1/0
ip address 192.168.3.14 255.255.255.240		Gi1/1
ip address 209.165.202.129 255.255.255.252		Gi1/2
ip address 192.168.4.13 255.255.255.240	HQ-1	Gi1/3
ip address 209.165.202.130 255.255.255.252		
ip address 209.165.202.131 255.255.255.252		
ip address 192.168.3.14 255.255.255.248		

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

ip address 192.168.4.9 255.255.255.248	DC-1	ip address 209.165.202.130 255.255.255.252
ip address 192.168.3.14 255.255.255.240		ip address 192.168.4.9 255.255.255.248
ip address 209.165.202.129 255.255.255.252		ip address 192.168.3.14 255.255.255.240
ip address 192.168.4.13 255.255.255.240	HQ-1	ip address 192.168.3.14 255.255.255.248
ip address 209.165.202.130 255.255.255.252		
ip address 209.165.202.131 255.255.255.252		
ip address 192.168.3.14 255.255.255.248		

NEW QUESTION 690

.....

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