

Cisco

Exam Questions 200-301

Cisco Certified Network Associate



NEW QUESTION 1

DRAG DROP - (Topic 3)

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

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

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

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

NEW QUESTION 2

- (Topic 3)

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 3

- (Topic 3)

Which type of network attack overwhelms the target server by sending multiple packets to a port until the half-open TCP resources of the target are exhausted?

- A. SYIM flood
- B. reflection
- C. teardrop
- D. amplification

Answer: A

NEW QUESTION 4

- (Topic 3)

Which protocol uses the SSL?

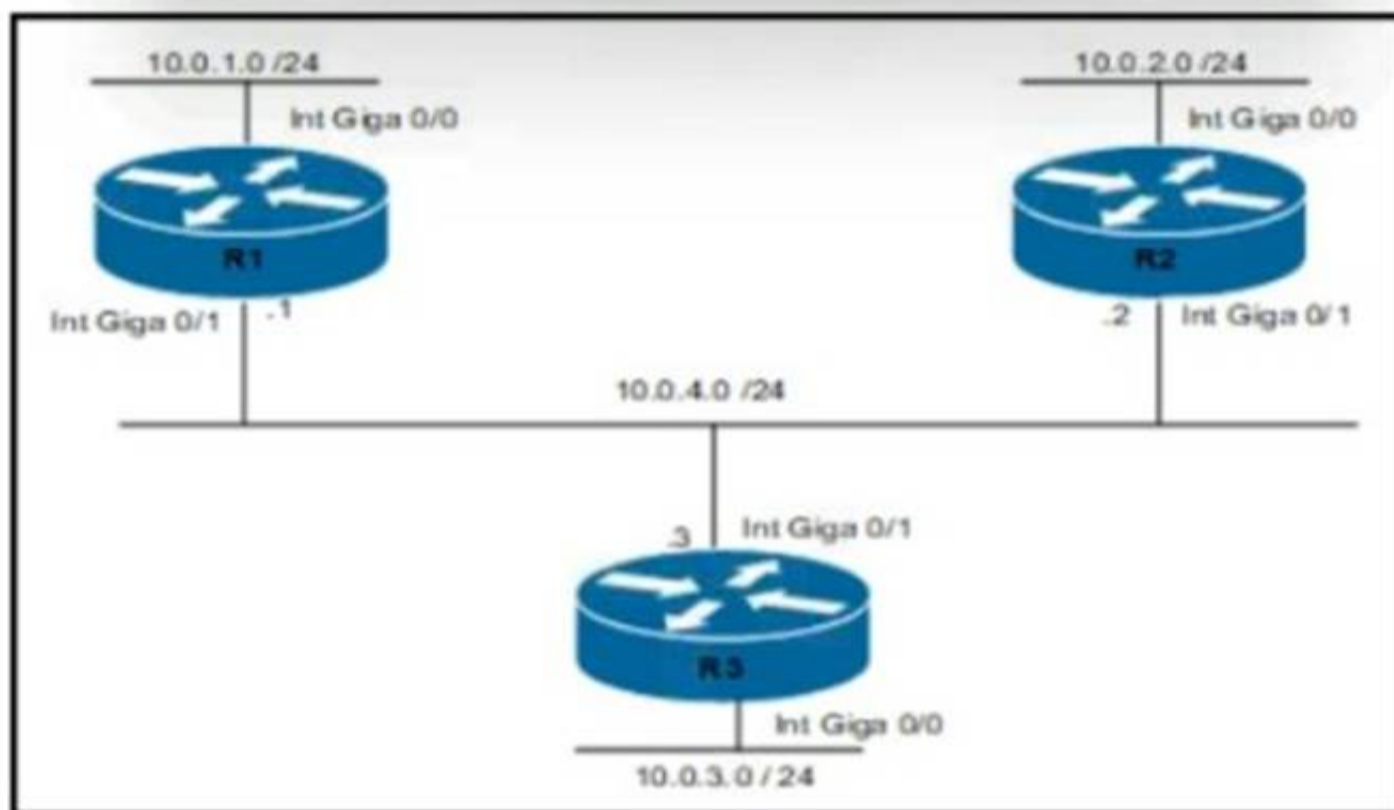
- A. HTTP
- B. SSH
- C. HTTPS
- D. Telnet

Answer: C

NEW QUESTION 5

- (Topic 3)

Refer to the exhibit.



Routers R1 and R3 have the default configuration The router R2 priority is set to 99 Which commands on R3 configure it as the DR in the 10.0 4.0/24 network?

- A. R3(config)#interface Gig0/1 R3(config-if)#ip ospf priority 100
- B. R3(config)#interface Gig0/0 R3(config-if)#ip ospf priority 100
- C. R3(config)#interface Gig0/0 R3(config-if)#ip ospf priority 1
- D. R3(config)#interface Gig0/1 R3(config-if)#ip ospf priority 0

Answer: B

NEW QUESTION 6

- (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)

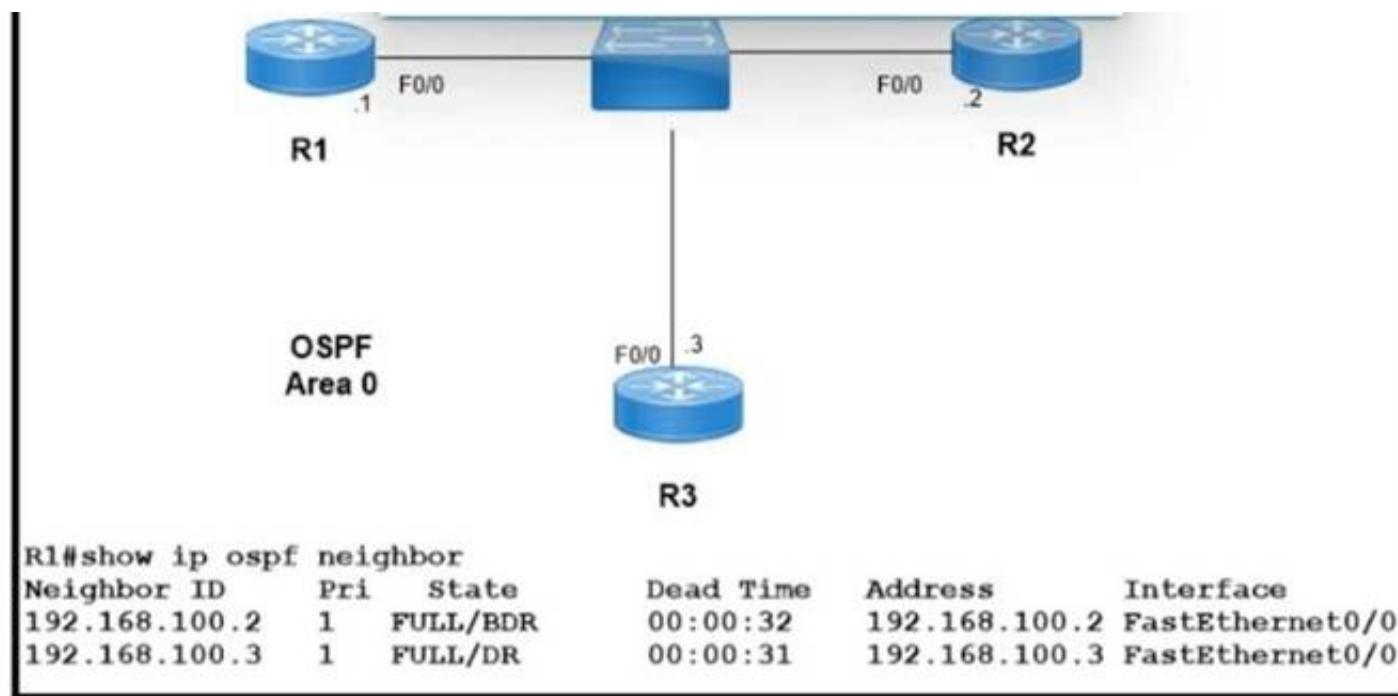
- A. interface vlan 1234 ip address 10.70.159.1 255.255.254.0
- B. interface vlan 1148 ip address 10.70.148.1 255.255.254.0
- C. interface vlan 4722 ip address 10.70.133.17 255.255.255.192
- D. interface vlan 3002 ip address 10.70.147.17 255.255.255.224
- E. interface vlan 155 ip address 10.70.155.65 255.255.255.224

Answer: BD

NEW QUESTION 7

- (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
  
```

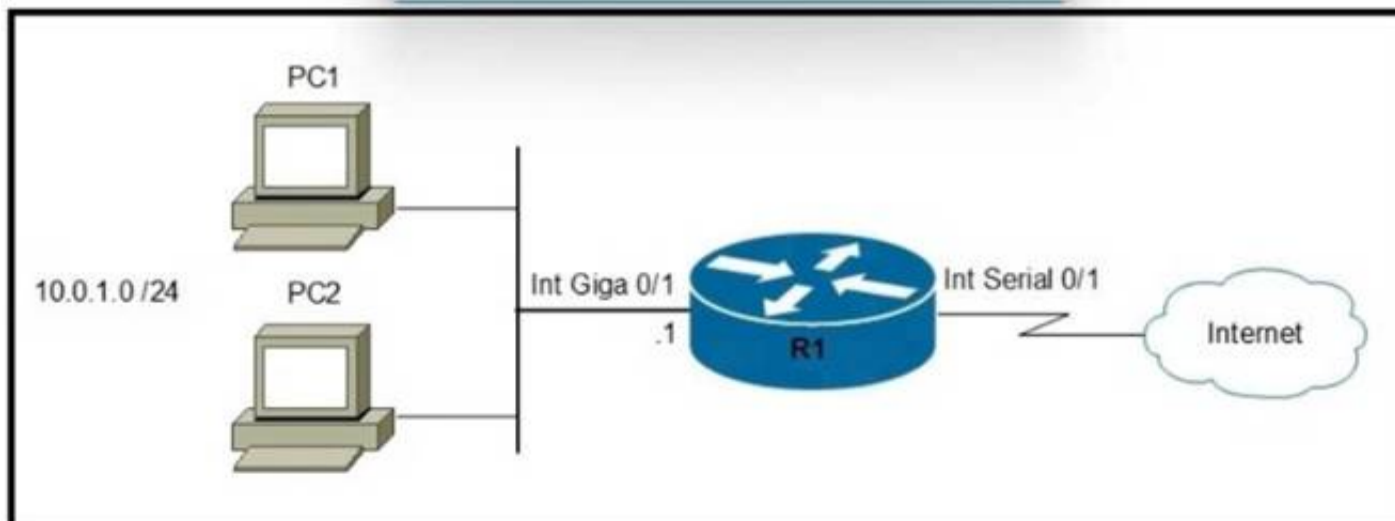
- A. Option A
- B. Option B
- C. Option C
- D. Option D
- E. Option E

Answer: BC

NEW QUESTION 8

- (Topic 3)

Refer to the exhibit.



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

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

Answer: BE

NEW QUESTION 9

FILL IN THE BLANK - (Topic 3)

Refer to the exhibit.

```

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

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

- A. Mastered
- B. Not Mastered

Answer: A

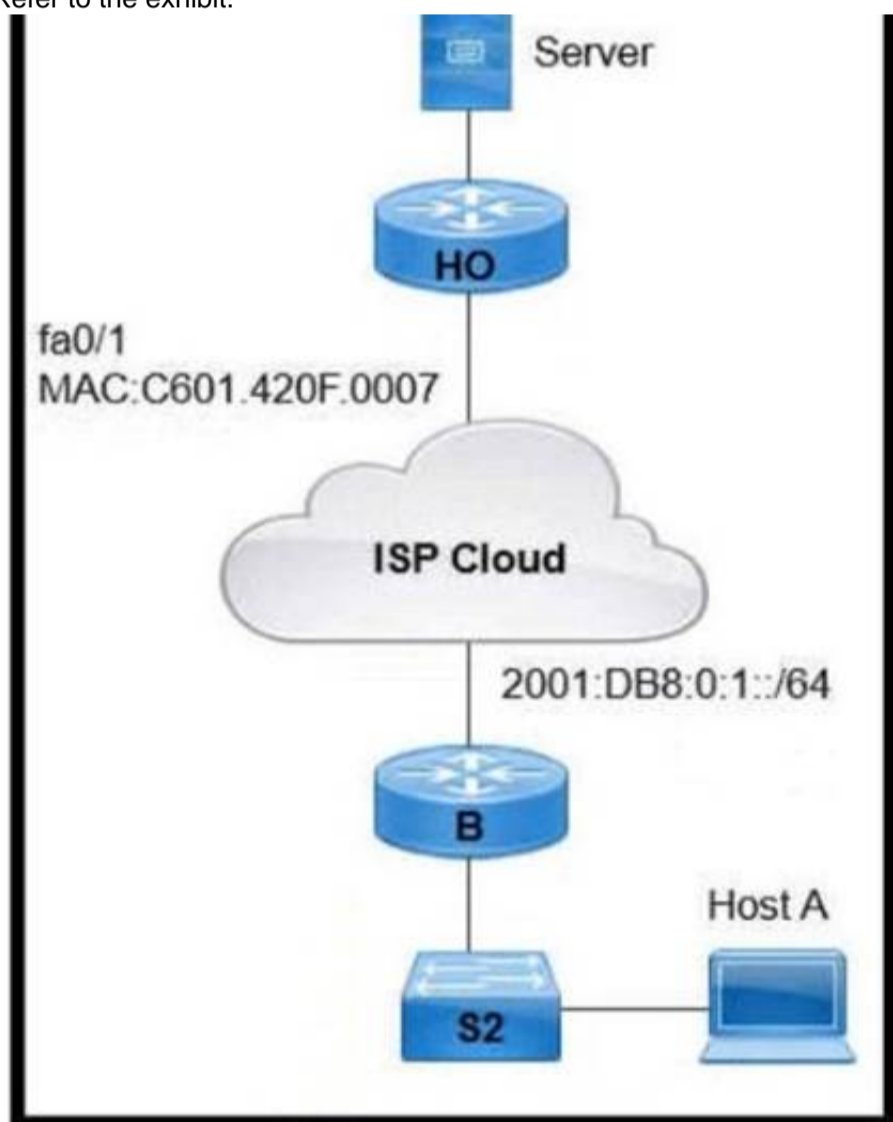
Explanation:

Diagram Description automatically generated with low confidence

NEW QUESTION 10

- (Topic 3)

Refer to the exhibit.



An engineer is configuring the HO router. Which IPv6 address configuration must be applied to the router fa0/1 interface for the router to assign a unique 64-bit IPv6 address to itself?

- A. ipv6 address 2001:DB8:0:1:C601:42FF:FE0F:7/64
- B. ipv6 address 2001:DB8:0:1:C601:42FE:800F:7/64
- C. ipv6 address 2001 :DB8:0:1:FFFF:C601:420F:7/64
- D. iov6 address 2001 :DB8:0:1:FE80:C601:420F:7/64

Answer: A

NEW QUESTION 10

- (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.

- visit - <https://www.surepassexam.com>

SW4#
 interface Gi0/2
 switchport mode trunk
 switchport trunk allowed vlan 14

SW11#
 interface Gi0/1
 switchport mode trunk
 switchport trunk allowed vlan 14

SW9#
 interface Gi0/2
 switchport mode trunk
 switchport trunk allowed vlan 108

B)

SW4#
 interface Gi0/2
 switchport mode trunk
 switchport trunk allowed vlan 14

SW11#
 interface Gi0/1
 switchport mode trunk
 switchport trunk allowed vlan 14

SW9#
 interface Gi0/2
 switchport mode trunk
 switchport trunk allowed vlan 108

C)

SW4#
 interface Gi0/2
 switchport mode trunk
 switchport trunk allowed vlan 14,108

SW11#
 interface Gi0/2
 switchport mode trunk
 switchport trunk allowed vlan 14,108
 !
 interface Gi0/1
 switchport mode trunk
 switchport trunk allowed vlan 14,108

SW9#
 interface Gi0/2
 switchport mode trunk
 switchport trunk allowed vlan 14

D)

```
SW4#
interface Gi0/2
switchport mode access
switchport access vlan 14

SW11#
interface Gi0/2
switchport mode access
switchport access vlan 14
!
interface Gi0/0
switchport mode access
switchport access vlan 14
!
interface Gi0/1
switchport mode trunk

SW9#
interface Gi0/2
switchport mode access
switchport access vlan 14
```

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

Answer: C

NEW QUESTION 25

- (Topic 3)
A network engineer is configuring a switch so that it is remotely reachable via SSH. The engineer has already configured the host name on the router. Which additional command must the engineer configure before entering the command to generate the RSA key?

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

Answer: C

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

NEW QUESTION 29

- (Topic 3)
What is a function of a Next-Generation IPS?

- A. makes forwarding decisions based on learned MAC addresses
- B. serves as a controller within a controller-based network
- C. integrates with a RADIUS server to enforce Layer 2 device authentication rules
- D. correlates user activity with network events

Answer: D

NEW QUESTION 31

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

managed from a web-based dashboard

accessible for management via Telnet, SSH, or a web GUI

configured and managed by a WLC

requires a management IP address

Autonomous Access Point

Cloud-Based Access Point

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 33

- (Topic 2)

Refer to the exhibit.

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

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

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

Answer: A

NEW QUESTION 35

- (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 39

- (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 44

- (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 45

- (Topic 2)

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

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

Answer: AC

NEW QUESTION 49

DRAG DROP - (Topic 2)

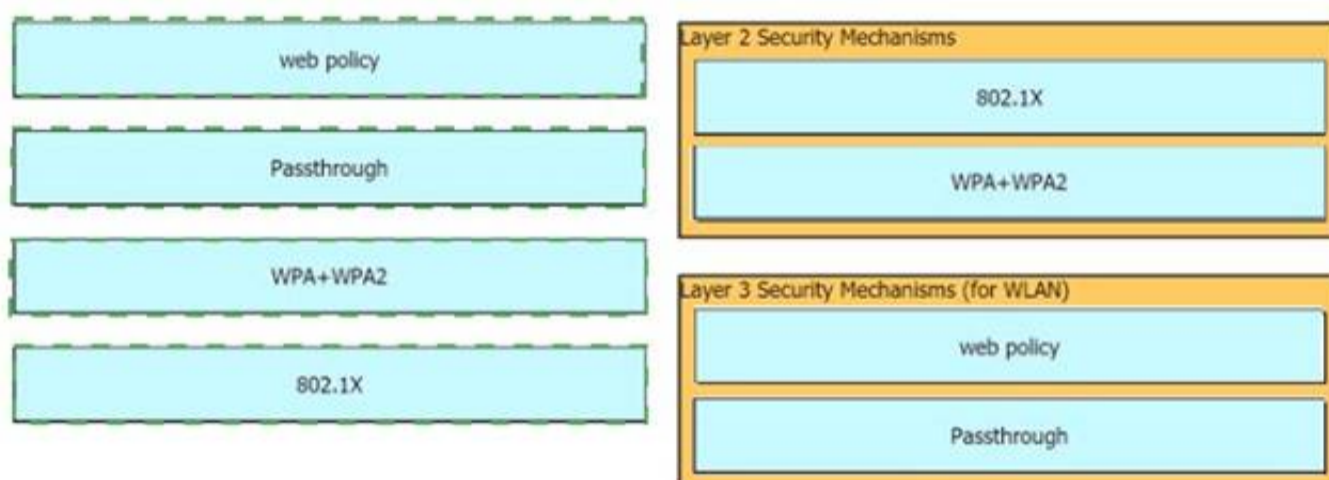
Drag and drop the Cisco Wireless LAN Controller security settings from the left onto the correct security mechanism categories on the right.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 51

- (Topic 2)

Which two QoS tools provides congestion management? (Choose two)

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

Answer: BC

Explanation:

Type of queuing methods are available:• First-In-First-Out (FIFO)• Priority Queuing (PQ)• Custom Queuing (CQ)• Weighted Fair Queuing (WFQ)• Class-Based Weighted Fair Queuing (CBWFQ)• Low-Latency Queuing (LLQ)

<https://www.orbit-computer-solutions.com/qos-congestion-management-tools/>

NEW QUESTION 56

- (Topic 2)

Which plane is centralized by an SDN controller?

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

Answer: B

NEW QUESTION 57

- (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 60

- (Topic 2)

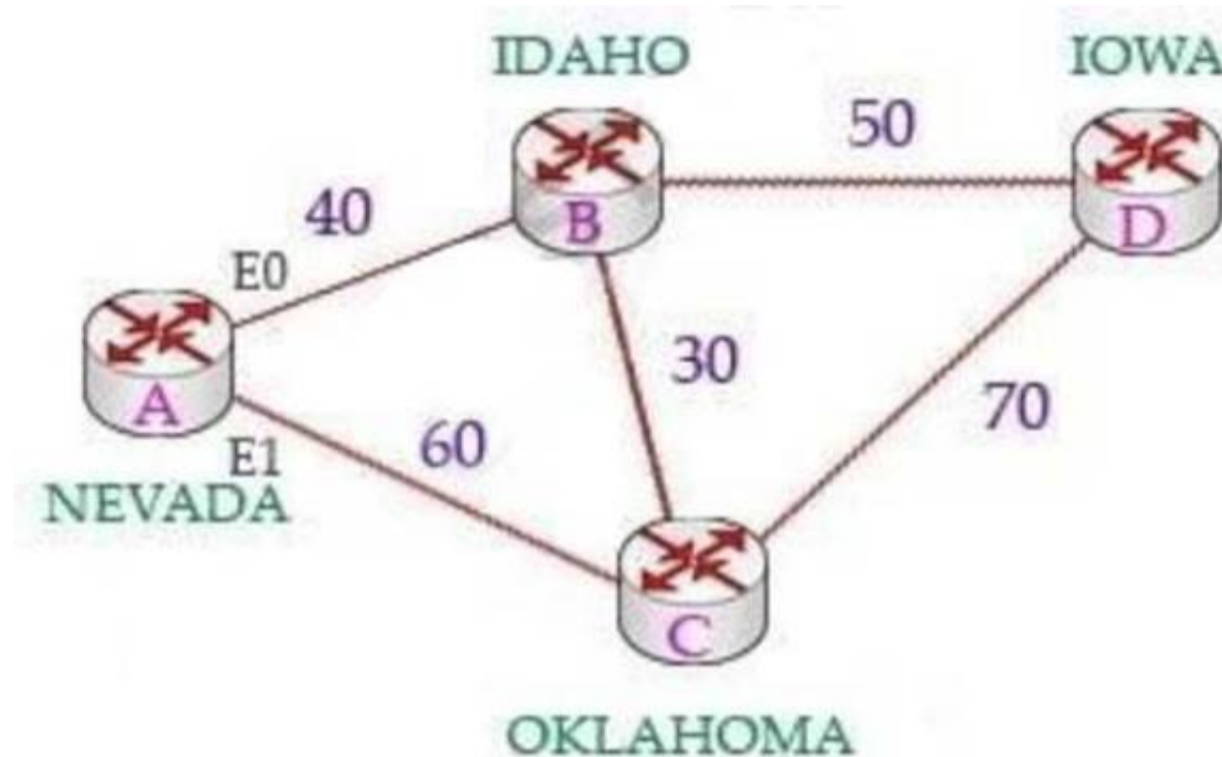
Which two actions influence the EIGRP route selection process? (Choose two)

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

Answer: BC

Explanation:

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



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

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

NEW QUESTION 63

- (Topic 2)

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

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

Answer: B

NEW QUESTION 67

- (Topic 2)

Which command must be entered to configure a DHCP relay?

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

Answer: A

NEW QUESTION 68

- (Topic 2)

Which two outcomes are predictable behaviors for HSRP? (Choose two)

- A. The two routers share a virtual IP address that is used as the default gateway for devices on the LAN.
- B. The two routers negotiate one router as the active router and the other as the standby router
- C. Each router has a different IP address both routers act as the default gateway on the LAN, and traffic is load balanced between them.
- D. The two routers synchronize configurations to provide consistent packet forwarding
- E. The two routers share the same IP address, and default gateway traffic is load-balanced between them

Answer: AB

NEW QUESTION 72

- (Topic 2)

A corporate office uses four floors in a building

- Floor 1 has 24 users
- Floor 2 has 29 users
- Floor 3 has 28 users
- Floor 4 has 22 users

Which subnet summarizes and gives the most efficient distribution of IP addresses for the router configuration?

- A. 192.168.0.0/26 as summary and 192.168.0.0/29 for each floor
- B. 192.168.0.0.24 as summary and 192.168.0.0/28 for each floor
- C. 192.168.0.0/23 as summary and 192.168.0.0/25 for each floor
- D. 192.168.0.0/25 as summary and 192.168.0.0/27 for each floor

Answer: D

NEW QUESTION 73

- (Topic 2)

Refer to the exhibit.

```
access-list 101 permit ospf any any
access-list 101 permit tcp any any eq 179
access-list 101 permit tcp any eq 179 any
access-list 101 permit gre any any
access-list 101 permit esp any any

access-list 101 deny ospf any any
access-list 101 permit tcp 10.1.1.0 0.0.0.255 172.16.1.0 0.0.0.255 eq telnet
access-list 101 permit udp 10.1.1.0 0.0.0.255 172.16.1.0 0.0.0.255 eq 500
access-list 101 permit udp 10.1.1.0 0.0.0.255 172.16.1.0 0.0.0.255 eq 4500
access-list 101 deny ip any any log

interface Ethernet0/0
 ip address 10.1.1.25 255.255.255.0
 ip access-group 101 in
```

A network administrator has been tasked with securing VTY access to a router. Which access-list entry accomplishes this task?

- A. access-list 101 permit tcp 10.1.10 0.0.0.255 172.16.10 0.0.0.255 eq ssh
- B. access-list 101 permit tcp 10.11.0 0.0.0.255 172.16.10 0.0.0.255 eq scp
- C. access-list 101 permit tcp 10.11.0 0.0.0.255 172.16.10 0.0.0.255 eq telnet
- D. access-list 101 permit tcp 10.1.10 0.0.0.255 172.16.10 0.0.0.255 eq https

Answer: A

NEW QUESTION 78

- (Topic 2)

Which two tasks must be performed to configure NTP to a trusted server in client mode on a single network device? (Choose two)

- A. Enable NTP authentication.
- B. Verify the time zone.
- C. Disable NTP broadcasts
- D. Specify the IP address of the NTP server
- E. Set the NTP server private key

Answer: AD

Explanation:

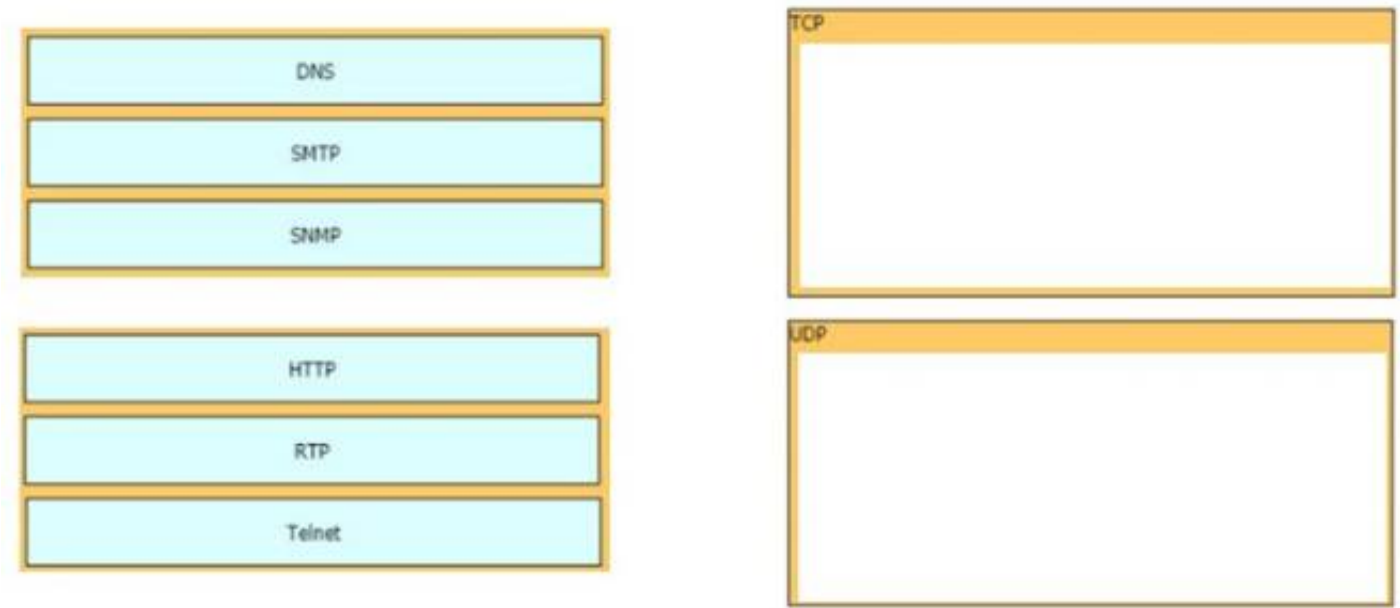
<https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst4000/8-2glx/configuration/guide/ntp.html>

To configure authentication, perform this task in privileged mode: Step 1: Configure an authentication key pair for NTP and specify whether the key will be trusted or untrusted. Step 2: Set the IP address of the NTP server and the public key. Step 3: Enable NTP client mode. Step 4: Enable NTP authentication. Step 5: Verify the NTP configuration.

NEW QUESTION 81

DRAG DROP - (Topic 2)

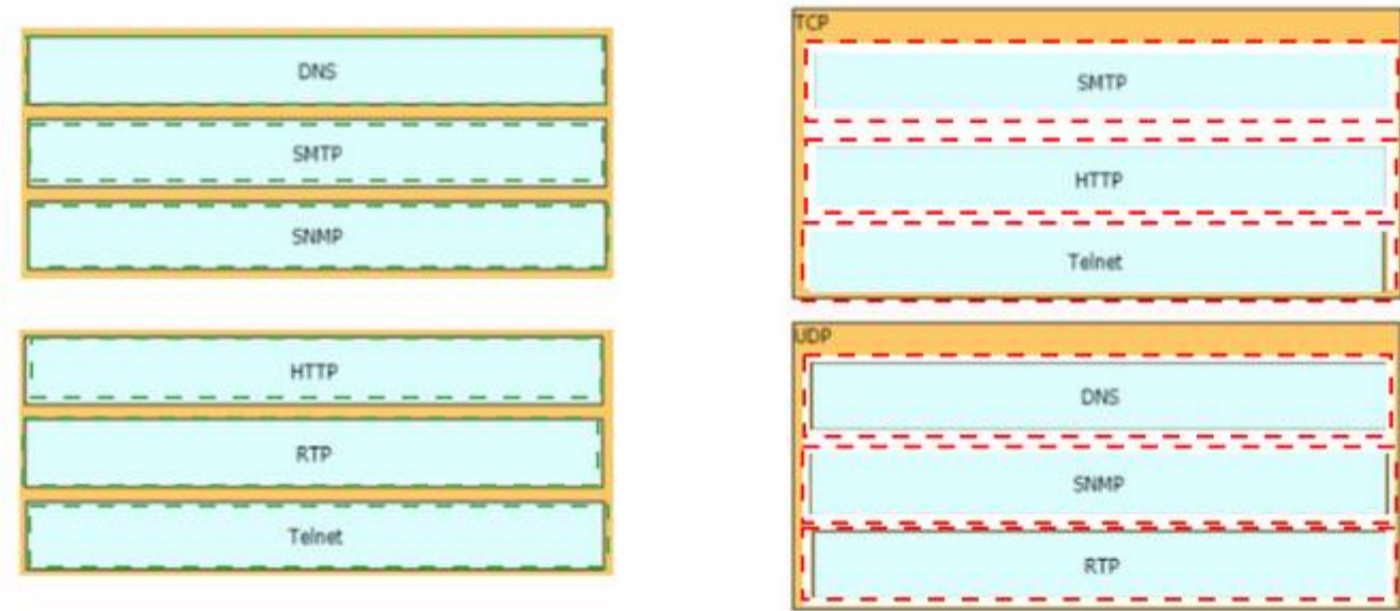
Drag and drop the TCP/IP protocols from the left onto the transmission protocols on the right



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 83

- (Topic 2)
What is a role of access points in an enterprise network?

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

Answer: A

NEW QUESTION 86

- (Topic 2)
Refer to the exhibit.

```
interface GigabitEthernet3/1/4
switchport voice vlan 50
!
```

An administrator is tasked with configuring a voice VLAN. What is the expected outcome when a Cisco phone is connected to the GigabitEthernet3/1/4 port on a switch?

- A. The phone and a workstation that is connected to the phone do not have VLAN connectivity
- B. The phone and a workstation that is connected to the phone send and receive data in VLAN 50.
- C. The phone sends and receives data in VLAN 50, but a workstation connected to the phone has no VLAN connectivity
- D. The phone sends and receives data in VLAN 50, but a workstation connected to the phone sends and receives data in VLAN 1

Answer: D

NEW QUESTION 89

- (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?

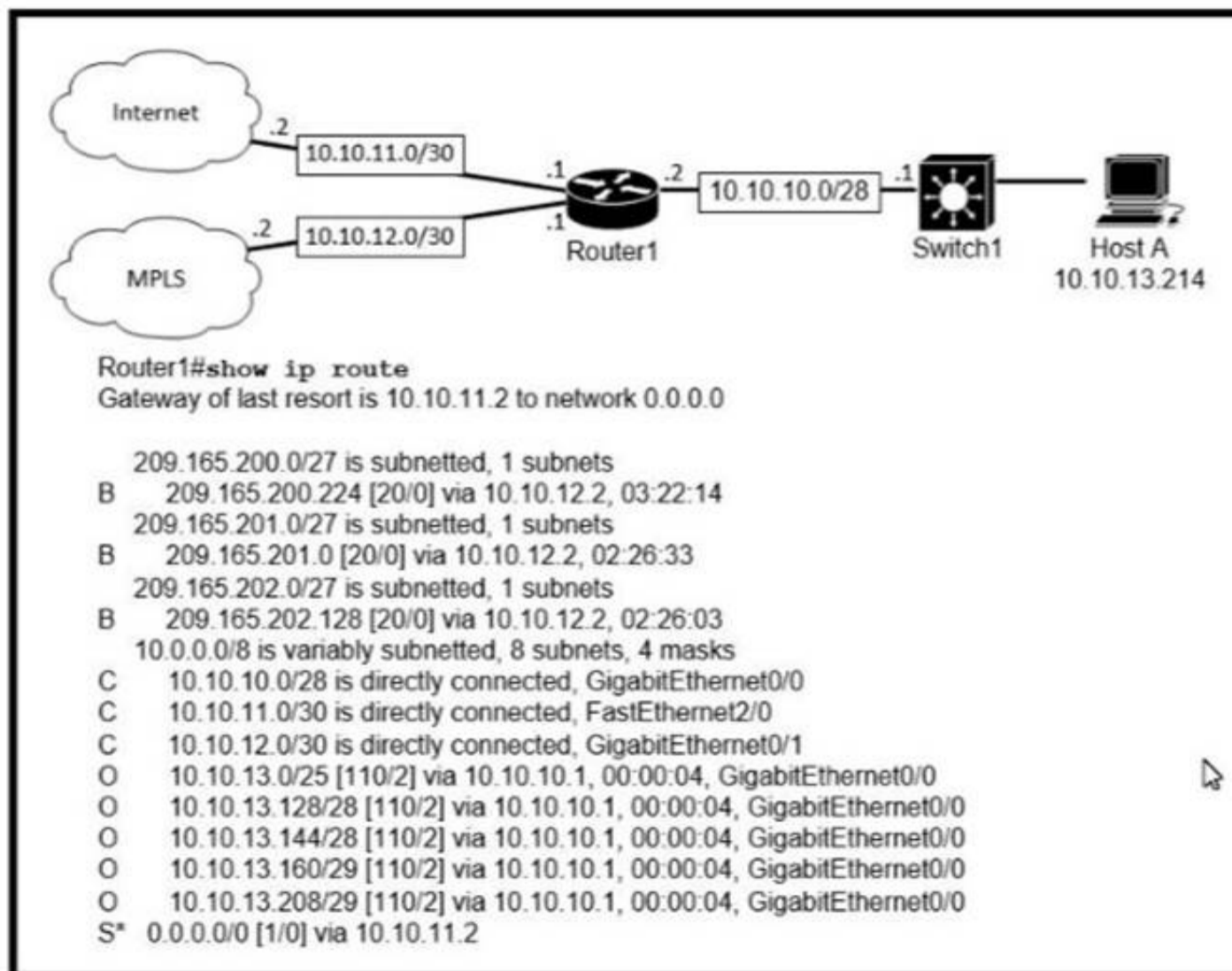
- A. Interface errors are incrementing
- B. An incorrect SFP media type was used at SiteA
- C. High usage is causing high latency
- D. The sites were connected with the wrong cable type

Answer: A

NEW QUESTION 91

- (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 92

- (Topic 2)

Refer to the exhibit.

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

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

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

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

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

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

Answer: C

NEW QUESTION 94

- (Topic 2)

What is the primary function of a Layer 3 device?

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

Answer: C

NEW QUESTION 96

- (Topic 2)

What is a function of TFTP in network operations?

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

Answer: D

Explanation:

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

NEW QUESTION 101

- (Topic 2)

Refer to the exhibit.

```
R1# show ip route

D    192.168.10.0/24 [90/2679326] via 192.168.1.1
R    192.168.10.0/27 [120/3] via 192.168.1.2
O    192.168.10.0/23 [110/2] via 192.168.1.3
i L1 192.168.10.0/13 [115/30] via 192.168.1.4
```

How does router R1 handle traffic to 192.168.10.16?

- A. It selects the IS-IS route because it has the shortest prefix inclusive of the destination address.
- B. It selects the EIGRP route because it has the lowest administrative distance.
- C. It selects the OSPF route because it has the lowest cost.
- D. It selects the RIP route because it has the longest prefix inclusive of the destination address.

Answer: D

NEW QUESTION 106

- (Topic 2)

R1 has learned route 192.168.12.0/24 via IS-IS, OSPF, RIP, and Internal EIGRP Under normal operating conditions, which routing protocol is installed in the routing table?

- A. IS-IS
- B. RIP
- C. Internal EIGRP
- D. OSPF

Answer: C

Explanation:

With the same route (prefix), the router will choose the routing protocol with lowest Administrative Distance (AD) to install into the routing table. The AD of Internal EIGRP (90) is lowest so it would be chosen. The table below lists the ADs of popular routing protocols.

Route Source	Administrative Distance
Directly Connected	0
Static	1
EIGRP	90
EIGRP Summary route	5
OSPF	110
RIP	120

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Note: The AD of IS-IS is 115. The "EIGRP" in the table above is "Internal EIGRP". The AD of "External EIGRP" is 170. An EIGRP external route is a route that was redistributed into EIGRP.

NEW QUESTION 111

- (Topic 2)

Refer to the exhibit.

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

What is the effect of this configuration?

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

Answer: D

NEW QUESTION 113

- (Topic 2)

Which configuration is needed to generate an RSA key for SSH on a router?

- A. Configure the version of SSH
- B. Configure VTY access.
- C. Create a user with a password.
- D. Assign a DNS domain name

Answer: D

NEW QUESTION 114

- (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 115

- (Topic 2)

How do AAA operations compare regarding user identification, user services and access control?

- A. Authorization provides access control and authentication tracks user services
- B. Authentication identifies users and accounting tracks user services
- C. Accounting tracks user services, and authentication provides access control
- D. Authorization identifies users and authentication provides access control

Answer: B

NEW QUESTION 116

- (Topic 2)

What are two benefits of using the PortFast feature? (Choose two)

- A. Enabled interfaces are automatically placed in listening state
- B. Enabled interfaces come up and move to the forwarding state immediately
- C. Enabled interfaces never generate topology change notifications.
- D. Enabled interfaces that move to the learning state generate switch topology change notifications
- E. Enabled interfaces wait 50 seconds before they move to the forwarding state

Answer: AB

NEW QUESTION 120

- (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 121

- (Topic 2)

An engineer must configure a WLAN using the strongest encryption type for WPA2- PSK. Which cipher fulfills the configuration requirement?

- A. WEP
- B. RC4
- C. AES
- D. TKIP

Answer: C

Explanation:

Many routers provide WPA2-PSK (TKIP), WPA2-PSK (AES), and WPA2- PSK (TKIP/AES) as options. TKIP is actually an older encryption protocol introduced with WPA to replace the very-insecure WEP encryption at the time. TKIP is actually quite similar to WEP encryption. TKIP is no longer considered secure, and is now deprecated. In other words, you shouldn't be using it.

AES is a more secure encryption protocol introduced with WPA2 and it is currently the strongest encryption type for WPA2-PSK.

NEW QUESTION 123

- (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 126

- (Topic 2)

Refer to the exhibit.

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

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

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

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

Answer: A

NEW QUESTION 127

- (Topic 2)

Which 802.11 frame type is indicated by a probe response after a client sends a probe request?

- A. action
- B. management
- C. control
- D. data

Answer: B

NEW QUESTION 129

- (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 131

- (Topic 2)

Refer to the exhibit.

```
10.0.0.0/24 is subsetting, 1 subnets
C    10.0.0.0 is directly connected, FastEthernet0/1
C    172.160.0/16 is directly connected, FastEthernet0/0
D    192.168.0.0/24 [90/30720] via 172.16.0.2, 00:00:03, FastEthernet0/0
```

Which route type does the routing protocol Code D represent in the output?

- A. internal BGP route
- B. /24 route of a locally configured IP
- C. statically assigned route
- D. route learned through EIGRP

Answer: D

NEW QUESTION 134

- (Topic 2)

Refer to the exhibit.

```
R1# show ip route | begin gateway
Gateway of last resort is 209.165.200.246 to network 0.0.0.0
S* 0.0.0.0/0 [1/0] via 209.165.200.246, Serial0/1/0
    is directly connected, Serial0/1/0
    172.16.0.0/16 is variably subnetted, 2 subnets, 2 masks
S    172.16.3.0/24 [1/0] via 209.165.200.250, Serial0/0/0
O    172.16.3.0/28 [110/1] via 209.165.200.254, 00:00:28, Serial0/0/1
    209.165.200.0/24 is variably subnetted, 6 subnets, 2 masks
C    209.165.200.244/30 is directly connected, Serial0/1/0
L    209.165.200.245/32 is directly connected, Serial0/1/0
C    209.165.200.248/30 is directly connected, Serial0/0/0
L    209.165.200.249/32 is directly connected, Serial0/0/0
C    209.165.200.252/30 is directly connected, Serial0/0/1
L    209.165.200.253/32 is directly connected, Serial0/0/1
```

A packet is being sent across router R1 to host 172.16.0.14. What is the destination route for the packet?

- A. 209.165.200.254 via Serial0/0/1
- B. 209.165.200.254 via Serial0/0/0
- C. 209.165.200.246 via Serial0/1/0
- D. 209.165.200.250 via Serial0/0/0

Answer: A

NEW QUESTION 138

- (Topic 2)

What is a function of a Layer 3 switch?

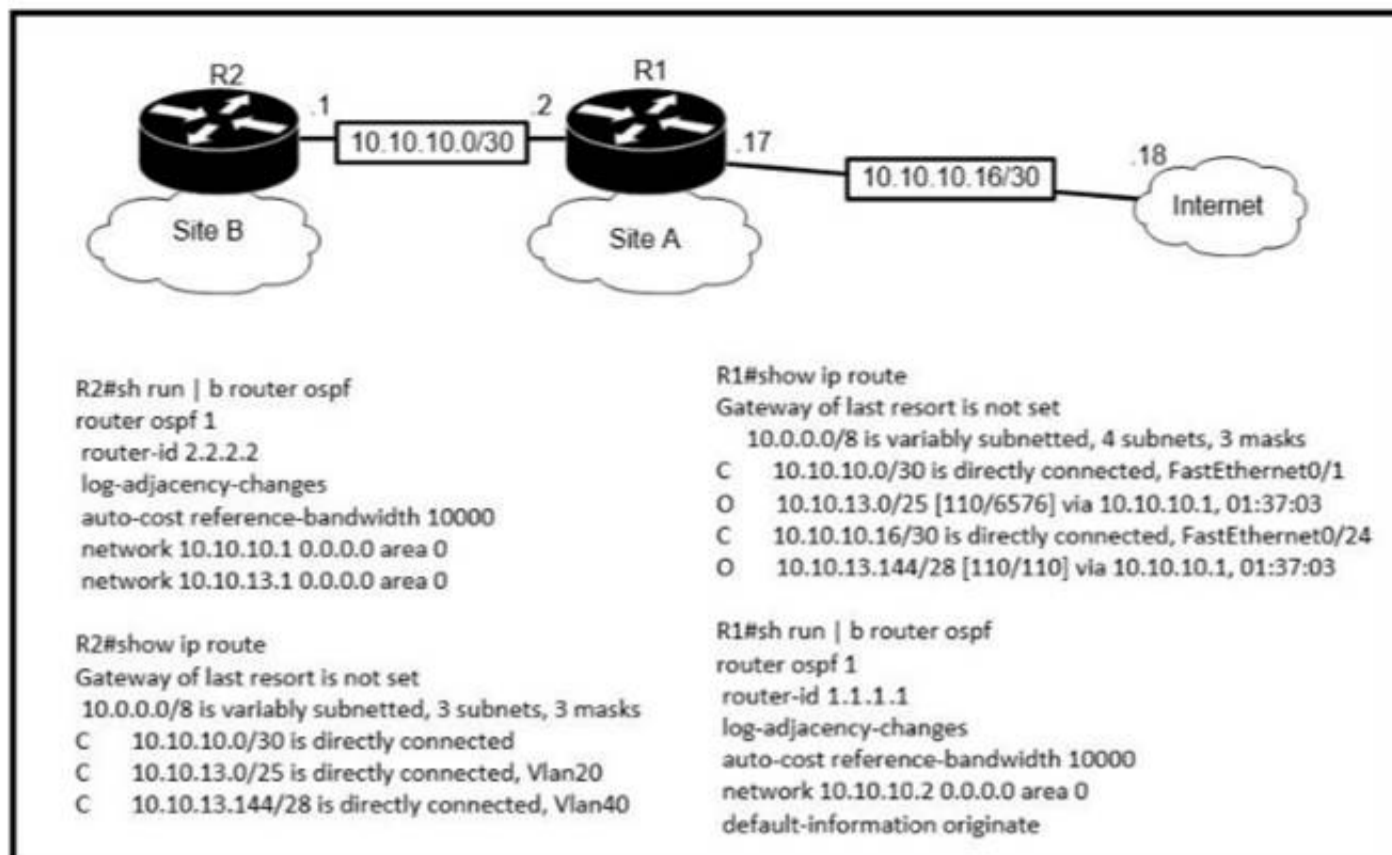
- A. move frames between endpoints limited to IP addresses
- B. transmit broadcast traffic when operating in Layer 3 mode exclusively
- C. forward Ethernet frames between VLANs using only MAC addresses
- D. flood broadcast traffic within a VLAN

Answer: A

NEW QUESTION 141

- (Topic 2)

Refer to the exhibit.



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

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

Answer: D

NEW QUESTION 143

- (Topic 2)

Which two must be met before SSH can operate normally on a Cisco IOS switch? (Choose two)

- A. The switch must be running a k9 (crypto) IOS image
- B. The ip domain-name command must be configured on the switch
- C. IP routing must be enabled on the switch
- D. A console password must be configured on the switch
- E. Telnet must be disabled on the switch

Answer: AB

Explanation:

Reference: <https://www.cisco.com/c/en/us/support/docs/security/vpn/secure-shell-ssh/4145-ssh.html>

NEW QUESTION 147

- (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 150

- (Topic 2)

A network administrator enabled port security on a switch interface connected to a printer. What is the next configuration action in order to allow the port to learn the MAC address of the printer and insert it into the table automatically?

- A. enable dynamic MAC address learning
- B. implement static MAC addressing.
- C. enable sticky MAC addressing
- D. implement auto MAC address learning

Answer: C

NEW QUESTION 155

- (Topic 1)

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

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

Answer: C

NEW QUESTION 156

- (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 158

- (Topic 1)

Refer to the exhibit.

Router#					
Capability Codes: R - Router, T - Trans Bridge, B - Source Route Bridge					
S - Switch, H - Host, I - IGMP, r - Repeater, P - Phone,					
D - Remote, C - CVTA, M - Two-port Mac Relay					
Device ID	Local Intrfce	Holdtme	Capability	Platform	Port ID
10.1.1.2	Gig 37/3	176	R I	CPT 600	Gig 36/41
10.1.1.2	Gig 37/1	174	R I	CPT 600	Gig 36/43
10.1.1.2	Gig 36/41	134	R I	CPT 600	Gig 37/3
10.1.1.2	Gig 36/43	134	R I	CPT 600	Gig 37/1
10.1.1.2	Ten 3/2	132	R I	CPT 600	Ten 4/2
10.1.1.2	Ten 4/2	174	R I	CPT 600	Ten 3/2

Which command provides this output?

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

Answer: D

NEW QUESTION 160

- (Topic 1)

What is the difference regarding reliability and communication type between TCP and UDP?

- A. TCP is reliable and is a connection-oriented protocol UDP is not reliable and is a connectionless protocol
- B. TCP is not reliable and is a connection-oriented protocol; UDP is reliable and is aconnectionless protocol
- C. TCP is not reliable and is a connectionless protocol; UDP is reliable and is a connection- oriented protocol
- D. TCP is reliable and is a connectionless protocol; UDP is not reliable and is a connection- oriented protocol

Answer: A

NEW QUESTION 163

- (Topic 1)

Which 802.11 frame type is association response?

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

Answer: A

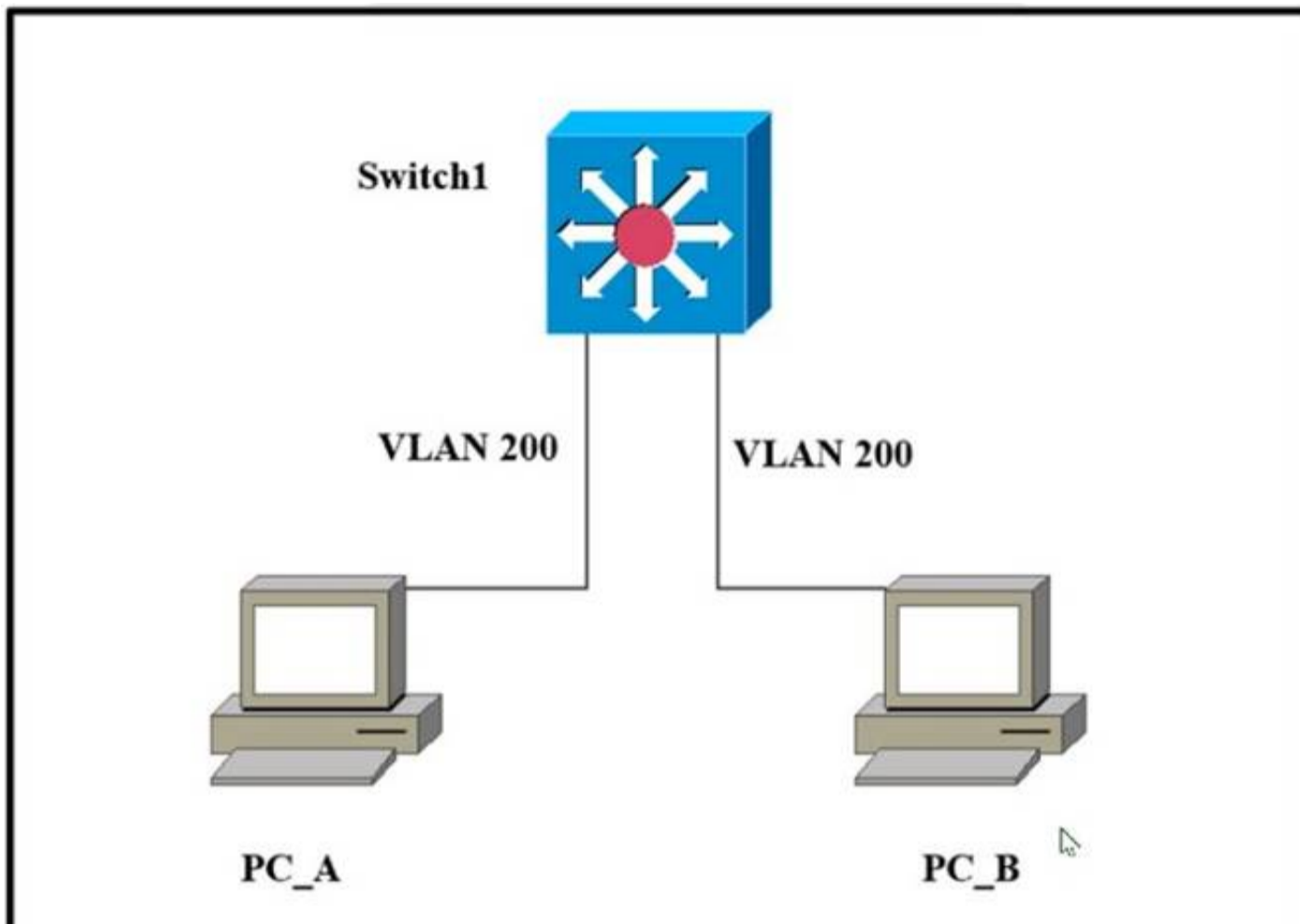
Explanation:

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

NEW QUESTION 167

- (Topic 1)

Refer to the exhibit.



Which outcome is expected when PC_A sends data to PC_B?

- A. The switch rewrites the source and destination MAC addresses with its own.
- B. The source MAC address is changed.
- C. The source and destination MAC addresses remain the same.
- D. The destination MAC address is replaced with ffff.ffff.ffff.

Answer: C

NEW QUESTION 170

- (Topic 1)

What is a DNS lookup operation?

- A. DNS server pings the destination to verify that it is available
- B. serves requests over destination port 53
- C. DNS server forwards the client to an alternate IP address when the primary IP is down
- D. responds to a request for IP address to domain name resolution to the DNS server

Answer: D

NEW QUESTION 175

- (Topic 1)

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

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

Answer: D

NEW QUESTION 180

- (Topic 1)

Which two minimum parameters must be configured on an active interface to enable OSPFv2 to operate? (Choose two)

- A. OSPF area
- B. OSPF MD5 authentication key
- C. IPv6 address
- D. OSPf process ID
- E. OSPf stub flag

Answer: AD

NEW QUESTION 184

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 186

- (Topic 1)

What uses HTTP messages to transfer data to applications residing on different hosts?

- A. OpenFlow
B. OpenStack
C. OpFlex
D. REST

Answer: D

NEW QUESTION 187

- (Topic 1)

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

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

Answer: AE

NEW QUESTION 189

- (Topic 1)

In Which way does a spine and-leaf architecture allow for scalability in a network when additional access ports are required?

- A. A spine switch and a leaf switch can be added with redundant connections between them
B. A spine switch can be added with at least 40 GB uplinks
C. A leaf switch can be added with a single connection to a core spine switch.
D. A leaf switch can be added with connections to every spine switch

Answer: D

Explanation:

Spine-leaf architecture is typically deployed as two layers: spines (such as an aggregation layer), and leaves (such as an access layer). Spine-leaf topologies provide high-bandwidth, low-latency, nonblocking server-to-server connectivity. Leaf (aggregation) switches are what provide devices access to the fabric (the network of spine and leaf switches) and are typically deployed at the top of the rack. Generally, devices connect to the leaf switches. Devices can include servers, Layer 4-7 services (firewalls and load balancers), and WAN or Internet routers. Leaf switches do not connect to other leaf switches. In spine-and-leaf architecture, every leaf should connect to every spine in a full mesh. Spine (aggregation) switches are used to connect to all leaf switches and are typically deployed at the end or middle of the row. Spine switches do not connect to other spine switches.

NEW QUESTION 191

- (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 194

- (Topic 1)
which purpose does a northbound API serve in a controller-based networking architecture?

- A. communicates between the controller and the physical network hardware
- B. reports device errors to a controller
- C. generates statistics for network hardware and traffic
- D. facilitates communication between the controller and the applications

Answer: D

NEW QUESTION 195

- (Topic 1)
Which type of attack can be mitigated by dynamic ARP inspection?

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

Answer: D

NEW QUESTION 196

DRAG DROP - (Topic 1)
Drag and drop the characteristics of network architectures from the left onto the type of architecture on the right.

single device handles the core and the distribution layer

enhances network availability

more cost-effective than other options

most appropriate for small network designs

separate devices handle the core and the distribution layer

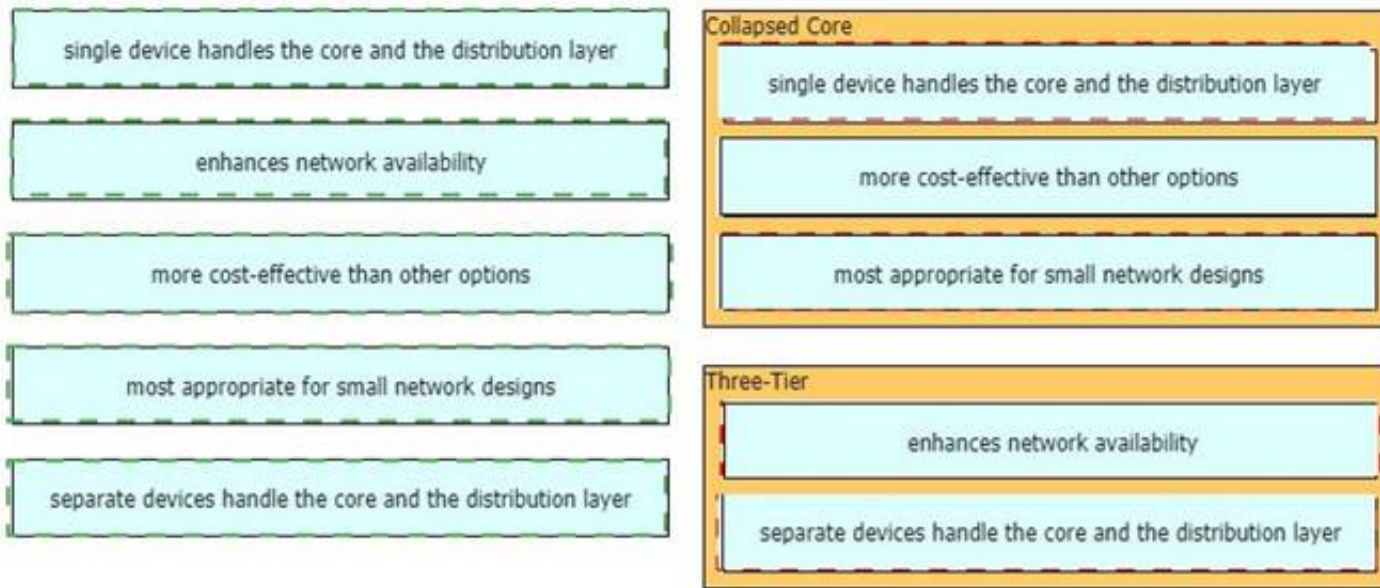
Collapsed Core

Three-Tier

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 201

- (Topic 1)

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

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

Answer: C

NEW QUESTION 203

- (Topic 1)

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

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

Answer: B

Explanation:

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

NEW QUESTION 205

- (Topic 1)

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

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

Answer: A

NEW QUESTION 206

- (Topic 1)

Which security program element involves installing badge readers on data-center doors to allow workers to enter and exit based on their job roles?

- A. role-based access control
- B. biometrics
- C. multifactor authentication
- D. physical access control

Answer: D

NEW QUESTION 208

- (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 213

- (Topic 1)

Refer to exhibit.

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

Which statement explains the configuration error message that is received?

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

Answer: A

NEW QUESTION 218

- (Topic 1)

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

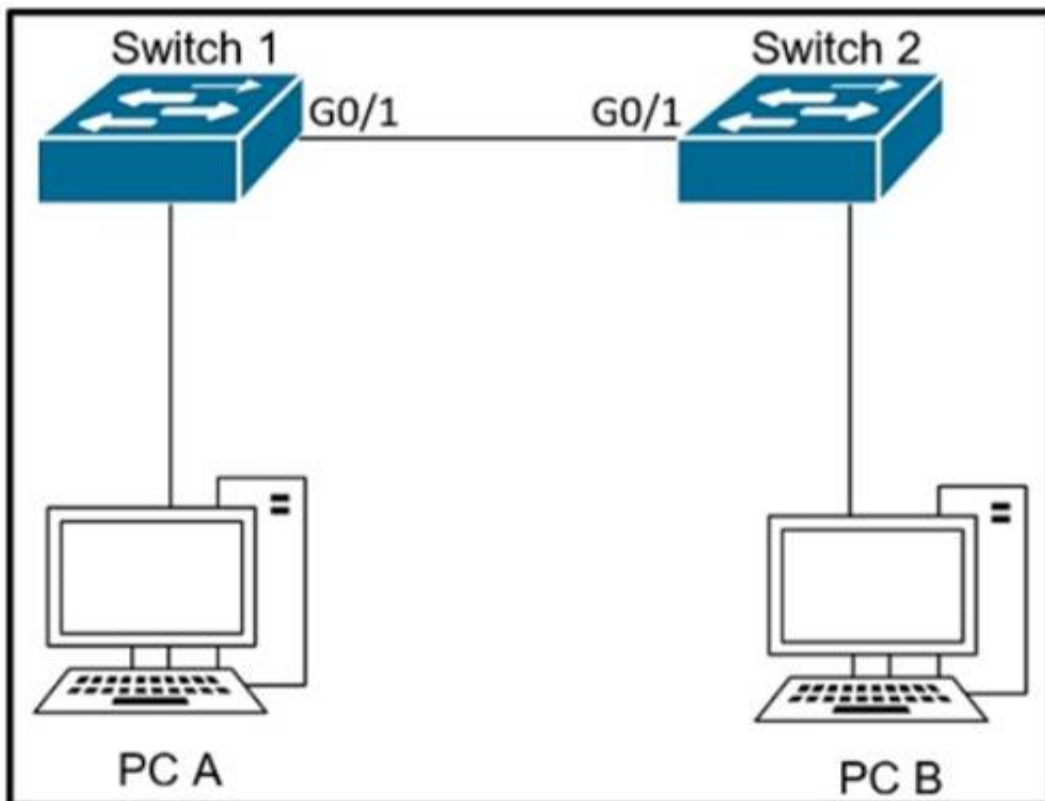
- A. alert
- B. critical
- C. notice
- D. debug

Answer: C

NEW QUESTION 222

- (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 227

- (Topic 1)

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

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

Answer: A

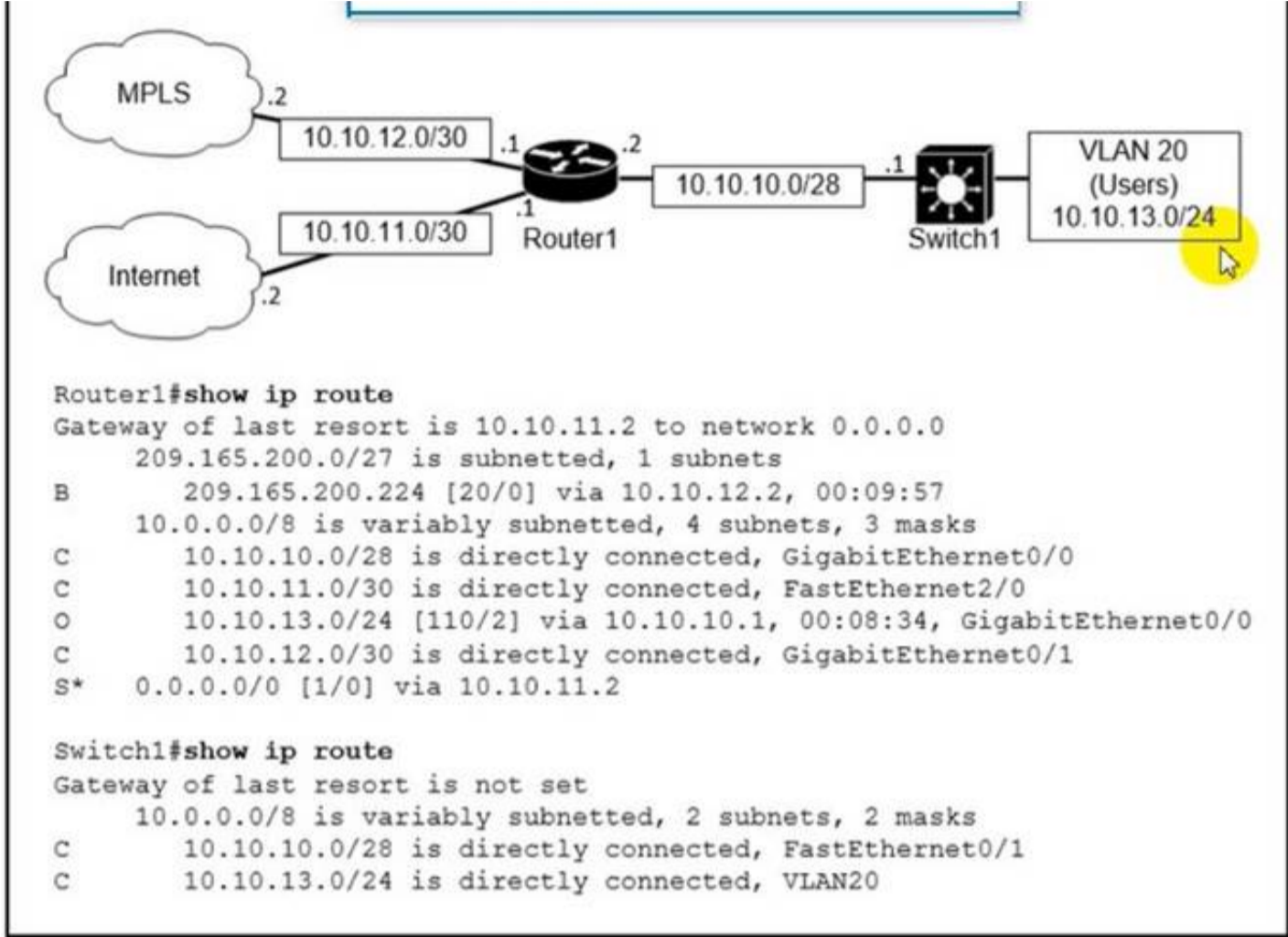
Explanation:

[https://www.bsimplify.com/what-is-point-to-point-t1/#:~:text=A%20Point%20to%20Point%20T1,data%20speeds%20\(1.54Mbps\).](https://www.bsimplify.com/what-is-point-to-point-t1/#:~:text=A%20Point%20to%20Point%20T1,data%20speeds%20(1.54Mbps).)
Point to Point T1
A Point to Point T1 service is a private data connection securely connecting two or more locations with T1 data speeds (1.54Mbps).

NEW QUESTION 228

- (Topic 1)

Refer to the exhibit.



which path is used by the router for internet traffic ?

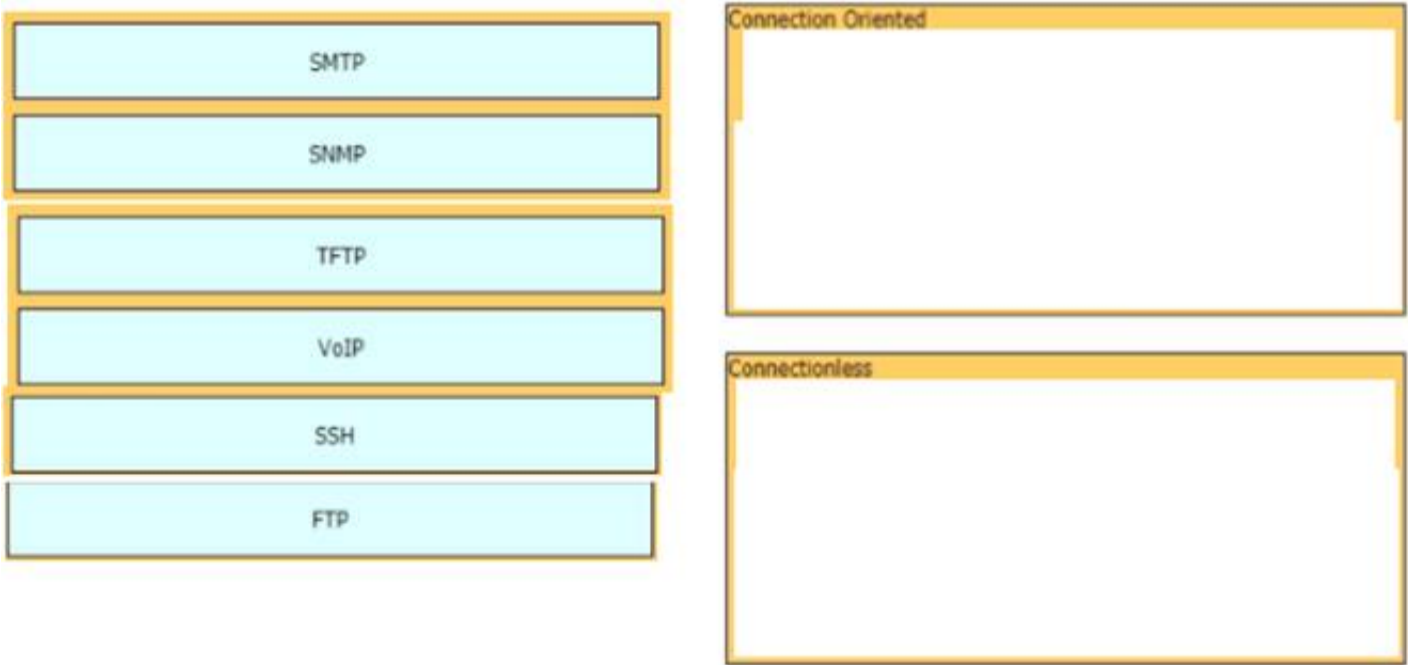
- A. 209.165.200.0/27
- B. 10.10.10.0/28
- C. 0.0.0.0/0
- D. 10.10.13.0/24

Answer: C

NEW QUESTION 230

DRAG DROP - (Topic 1)

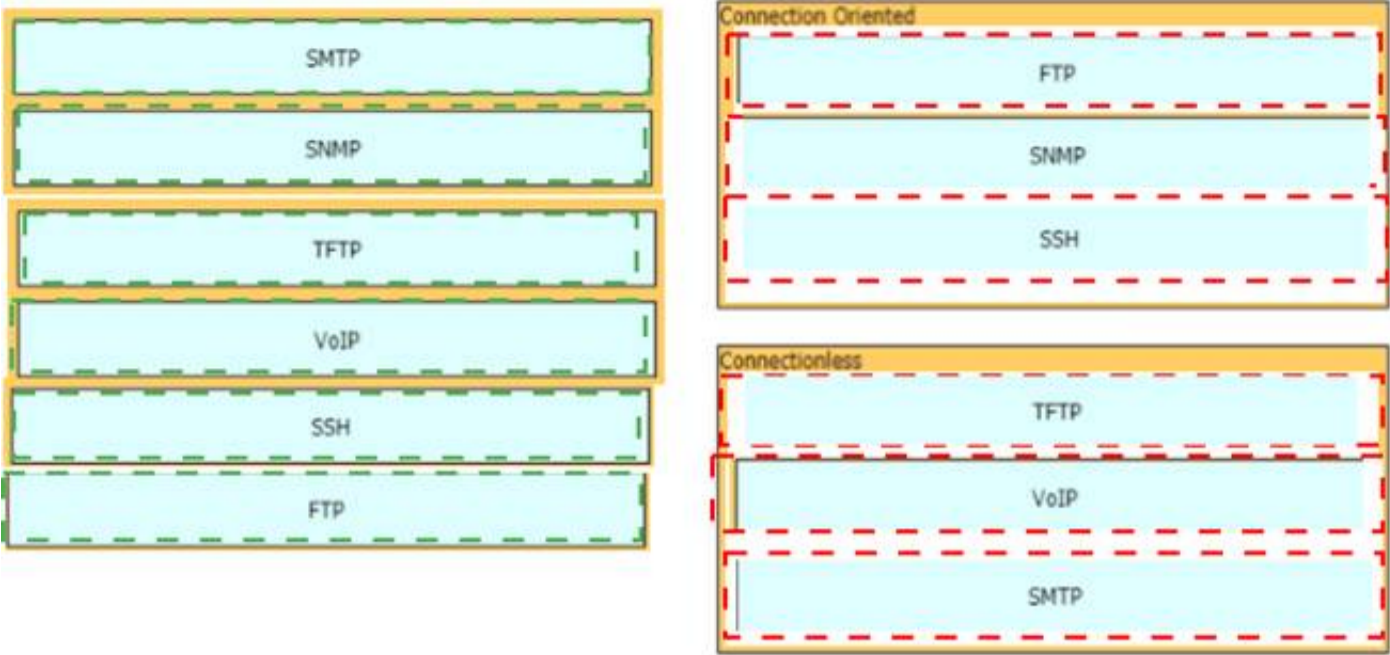
Drag and drop the network protocols from the left onto the correct transport services on the right.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 234

- (Topic 1)
Which command enables a router to become a DHCP client?

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

Answer: A

Explanation:

Reference: https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipaddr_dhcp/configuration/12-4/dhcp-12-4-book/config-dhcp-client.html
If we want to get an IP address from the DHCP server on a Cisco device, we can use the command “ip address dhcp”.
Note: The command “ip helper-address” enables a router to become a DHCP Relay Agent.

NEW QUESTION 235

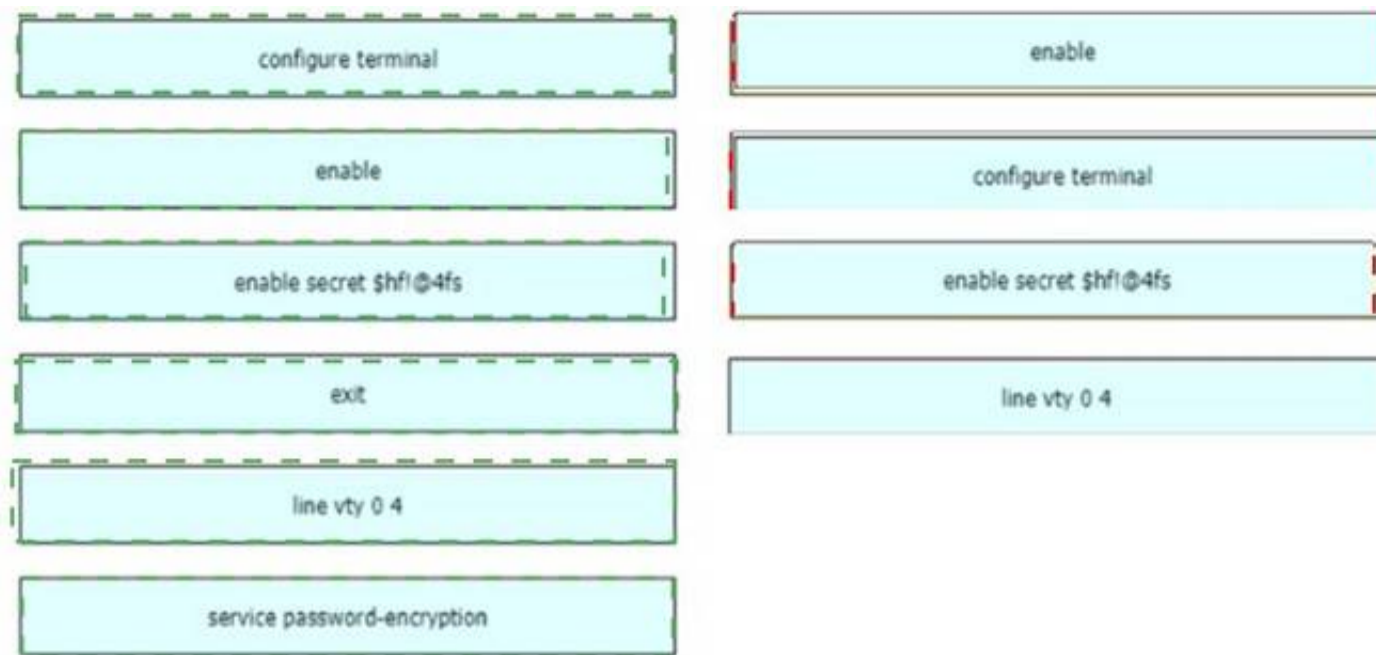
DRAG DROP - (Topic 1)
An engineer is configuring an encrypted password for the enable command on a router where the local user database has already been configured Drag and drop the configuration commands from the left into the correct sequence on the right Not all commands are used



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 238

- (Topic 1)

Which two components are needed to create an Ansible script that configures a VLAN on a switch? (Choose two.)

- A. cookbook
- B. task
- C. playbook
- D. model
- E. recipe

Answer: CD

NEW QUESTION 241

- (Topic 1)

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

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

Answer: D

NEW QUESTION 245

- (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 247

- (Topic 1)

How do servers connect to the network in a virtual environment?

- A. wireless to an access point that is physically connected to the network
- B. a cable connected to a physical switch on the network
- C. a virtual switch that links to an access point that is physically connected to the network
- D. a software switch on a hypervisor that is physically connected to the network

Answer: D

NEW QUESTION 249

- (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 252

DRAG DROP - (Topic 1)

Drag and drop the IPv6 address type characteristics from the left to the right.

attached to a single subnet

addresses with prefix FC00::/7

configured only once per interface

addressing for exclusive use internally without Internet routing

Link-Local Address

Unique Local Address

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

attached to a single subnet

addresses with prefix FC00::/7

configured only once per interface

addressing for exclusive use internally without Internet routing

Link-Local Address

addresses with prefix FC00::/7

addressing for exclusive use internally without Internet routing

Unique Local Address

configured only once per interface

attached to a single subnet

NEW QUESTION 256

- (Topic 1)

What criteria is used first during me 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 257

- (Topic 1)

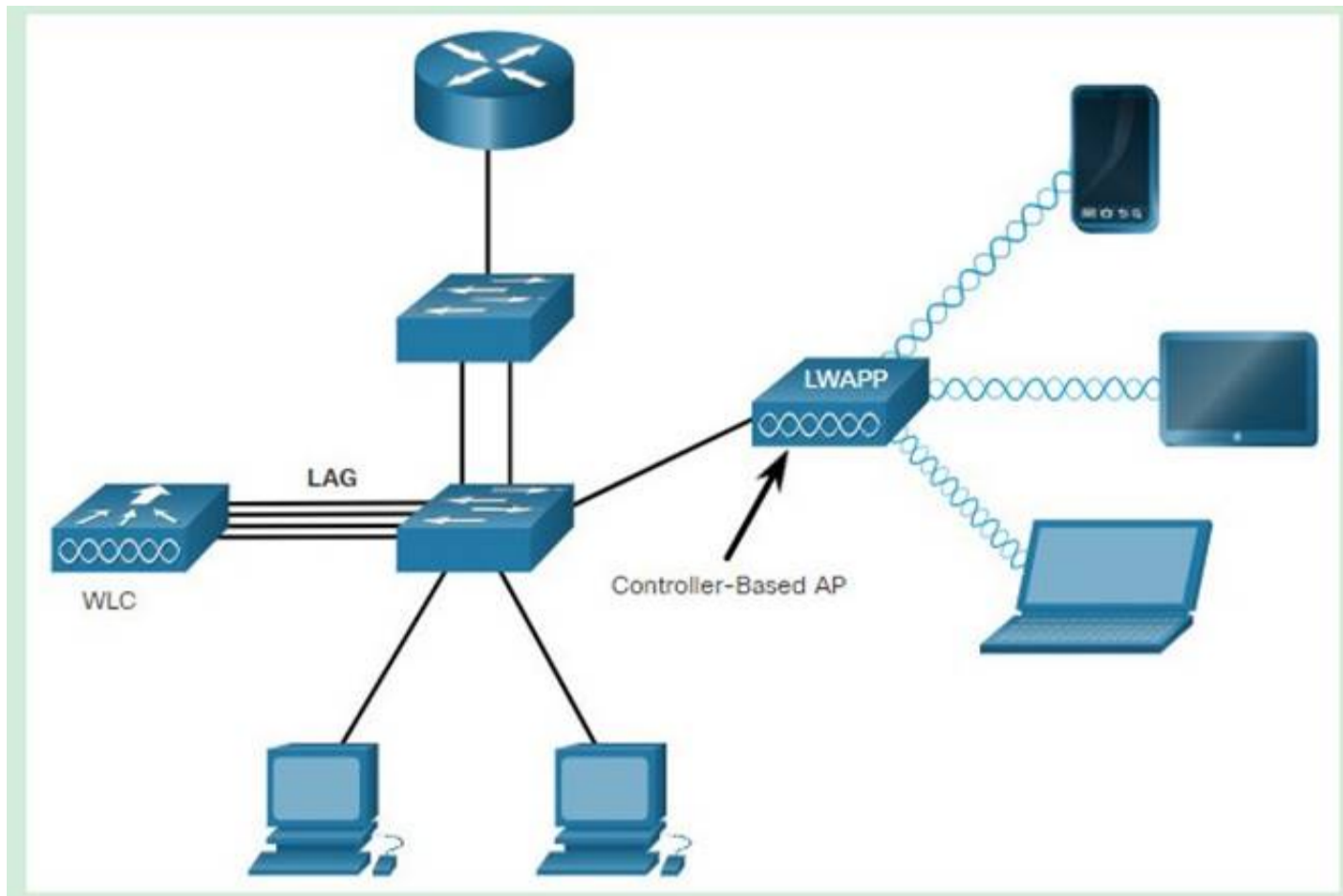
What is a function of Wireless LAN Controller?

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

Answer: C

Explanation:

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



NEW QUESTION 259

- (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 264

- (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 266

- (Topic 1)

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

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

Answer: A

NEW QUESTION 270

- (Topic 1)

What does physical access control regulate?

- A. access to specific networks based on business function
- B. access to servers to prevent malicious activity
- C. access to computer networks and file systems
- D. access to networking equipment and facilities

Answer: D

NEW QUESTION 274

- (Topic 1)

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

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

Answer: C

Explanation:

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

NEW QUESTION 279

- (Topic 1)

Refer to the exhibit.

```
R1#show ip route
Codes: 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
Gateway of last resort is 192.168.30.10 to network 0.0.0.0
 192.168.30.0/29 is subnetted, 2 subnets
C      192.168.30.0 is directly connected, FastEthernet0/0
C      192.168.30.8 is directly connected, Serial0/0.1
 192.168.10.0/24 is variably subnetted, 2 subnets, 2 masks
O IA   192.168.10.32/28 [110/193] via 192.168.30.10, 00:18:49, Serial0/0.1
O IA   192.168.10.0/27 [110/192] via 192.168.30.10, 00:18:49, Serial0/0.1
 192.168.20.0/30 is subnetted, 1 subnets
O IA   192.168.20.0 [110/128] via 192.168.30.10, 00:18:49, Serial0/0.1
 192.168.50.0/32 is subnetted, 1 subnets
C      192.168.50.1 is directly connected, Loopback0
O*IA 0.0.0.0/0 [110/84] via 192.168.30.10, 00:10:36, Serial0/0.1
```

What is the metric of the route to the 192.168.10.33/28 subnet?

- A. 84
- B. 110
- C. 128
- D. 192
- E. 193

Answer: E

NEW QUESTION 282

- (Topic 1)

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

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

Answer: B

Explanation:

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

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

NEW QUESTION 283

- (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 communicatio
- 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 dat
- H. UDP transmits data at a higher rate without ensuring packet delivery.

Answer: D

NEW QUESTION 284

- (Topic 1)

Aside from discarding, which two states does the switch port transition through while using RSTP (802.1w)? (Choose two)

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

Answer: CD

NEW QUESTION 289

- (Topic 1)

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

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

Answer: AD

Explanation:

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

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

NEW QUESTION 290

- (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 295

- (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 296

DRAG DROP - (Topic 1)

Drag and drop the attack-mitigation techniques from the left onto the Types of attack that they mitigate on the right.

configure 802.1x authentication	802.1q double-tagging VLAN-hopping attack
configure DHCP snooping	MAC flooding attack
configure the native VLAN with a nondefault VLAN ID	man-in-the-middle spoofing attack
disable DTP	switch-spoofing VLAN-hopping attack

- A. Mastered
 B. Not Mastered

Answer: A

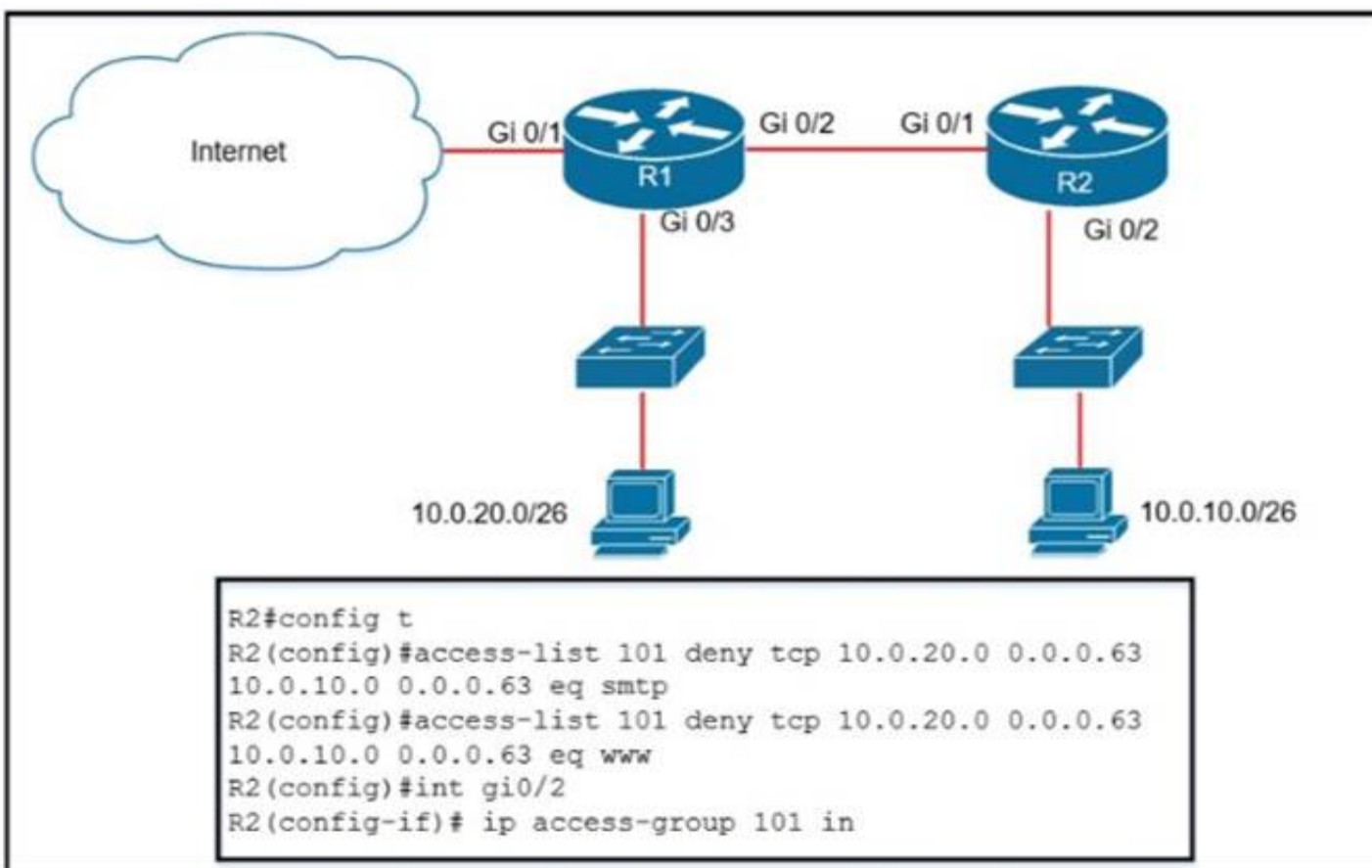
Explanation:

configure 802.1x authentication	configure the native VLAN with a nondefault VLAN ID
configure DHCP snooping	configure 802.1x authentication
configure the native VLAN with a nondefault VLAN ID	configure DHCP snooping
disable DTP	disable DTP

NEW QUESTION 300

- (Topic 1)

Refer to the exhibit.



An extended ACL has been configured and applied to router R2. The configuration failed to work as intended. Which two changes stop outbound traffic on TCP ports 25 and 80 to 10.0.20.0/26 from the 10.0.10.0/26 subnet while still allowing all other traffic? (Choose two)

- A. Add a "permit ip any any" statement to the beginning of ACL 101 for allowed traffic.
 B. Add a "permit ip any any" statement at the end of ACL 101 for allowed traffic.
 C. The source and destination IPs must be swapped in ACL 101.
 D. The ACL must be configured on the Gi0/2 interface inbound on R1.
 E. The ACL must be moved to the Gi0/1 interface outbound on R2.

Answer: BC

NEW QUESTION 305

- (Topic 1)

How are VLAN hopping attacks mitigated?

- A. enable dynamic ARP inspection

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

Answer: B

NEW QUESTION 309

- (Topic 1)

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

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

Answer: B

Explanation:

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

- + SaaS (Software as a Service): SaaS uses the web to deliver applications that are managed by a thirdparty vendor and whose interface is accessed on the clients' side. Most SaaS applications can be run directly from a web browser without any downloads or installations required, although some require plugins.
 - + PaaS (Platform as a Service): are used for applications, and other development, while providing cloud components to software. What developers gain with PaaS is a framework they can build upon to develop or customize applications. PaaS makes the development, testing, and deployment of applications quick, simple, and cost-effective. With this technology, enterprise operations, or a thirdparty provider, can manage Oses, virtualization, servers, storage, networking, and the PaaS software itself. Developers, however, manage the applications.
 - + IaaS (Infrastructure as a Service): self-service models for accessing, monitoring, and managing remote datacenter infrastructures, such as compute (virtualized or bare metal), storage, networking, and networking services (e.g. firewalls). Instead of having to purchase hardware outright, users can purchase IaaS based on consumption, similar to electricity or other utility billing.
- In general, IaaS provides hardware so that an organization can install their own operating system.

NEW QUESTION 310

DRAG DROP - (Topic 1)

A network engineer is configuring an OSPFv2 neighbor adjacency Drag and drop the parameters from the left onto their required categories on the right. Not all parameters are used

netmask

OSPF process ID

router ID

IP address

area ID

timers

must be unique

must match

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 314

SIMULATION - (Topic 5)

Guidelines
Topology
Tasks

R1
R2
R3

Guidelines
Topology
Tasks

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.

R1
R2
R3

Connectivity between three routers has been established, and IP services must be configured in the order presented to complete the implementation Tasks assigned include configuration of NAT, NTP, DHCP, and SSH services.

* 1. All traffic sent from R3 to the R1 Loopback address must be configured for NAT on R2. All source addresses must be translated from R3 to the IP address of Ethernet0/0 on R2, while using only a standard access list named NAT To verify, a ping must be successful to the R1 Loopback address sourced from R3. Do not use NVI NAT configuration.

* 2. Configure R1 as an NTP server and R2 as a client, not as a peer, using the IP address of the R1 Ethernet0/2 interface. Set the clock on the NTP server for midnight on January 1, 2019.

* 3. Configure R1 as a DHCP server for the network 10.1.3.0/24 in a pool named TEST. Using a single command, exclude addresses 1-10 from the range. Interface Ethernet0/2 on R3 must be issued the IP address of 10.1.3.11 via DHCP.

* 4. Configure SSH connectivity from R1 to R3, while excluding access via other remote connection protocols. Access for user root and password Cisco must be set on router R3 using RSA and 1024 bits. Verify connectivity using an SSH session from router R1 using a destination address of 10.1.3.11. Do NOT modify console access or line numbers to accomplish this task.

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

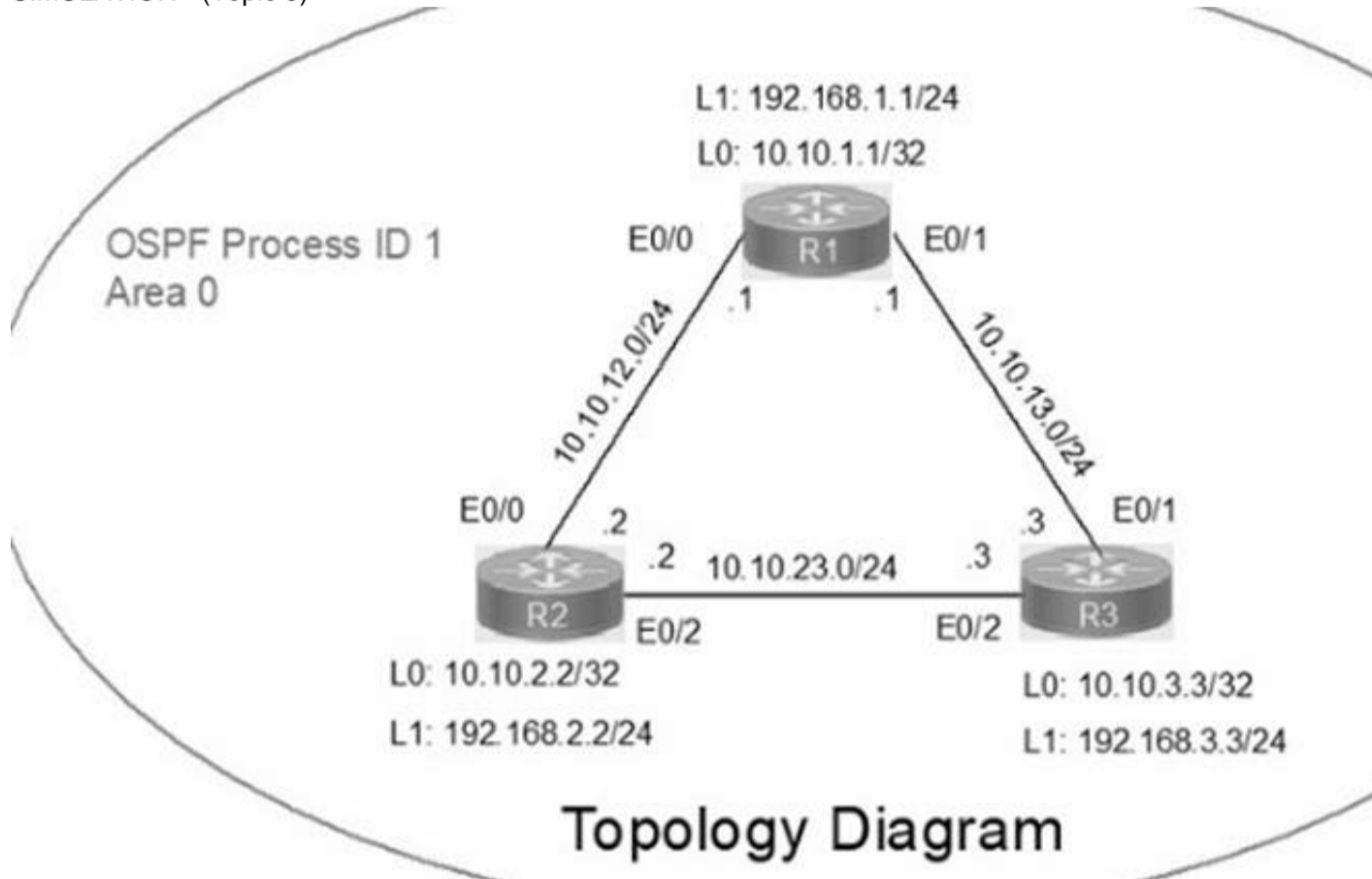
Answer as below configuration:

```
conf t
```

```
R1(config)#ntp master 1
R2(config)#ntp server 10.1.2.1
Exit
Router#clock set 00:00:00 jan 1 2019 ip dhcp pool TEST
network 10.1.3.0 255.255.255.0
ip dhcp excluded-address 10.1.3.1 10.1.3.10
R3(config)#int e0/3
R3(config)#int e0/2 ip address dhcp no shut
crypto key generate RSA 1024
Copy run start
```

NEW QUESTION 315

SIMULATION - (Topic 5)



Guidelines

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

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

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

* 1. Configure R1 and R2 Router IDs using the interface IP addresses from the link that is shared between them.

* 2. Configure the R2 links with a max value facing R1 and R3. R2 must become the DR. R1 and R3 links facing R2 must remain with the default OSPF configuration for DR election. Verify the configuration after clearing the OSPF process.

* 3. Using a host wildcard mask, configure all three routers to advertise their respective Loopback1 networks.

* 4. Configure the link between R1 and R3 to disable their ability to add other OSPF routers.

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer as below configuration:

```
on R1
conf terminal interface Loopback0
ip address 10.10.1.1 255.255.255.255
!
interface Loopback1
ip address 192.168.1.1 255.255.255.0
!
interface Ethernet0/0 no shut
ip address 10.10.12.1 255.255.255.0
ip ospf 1 area 0 duplex auto
!
interface Ethernet0/1 no shut
ip address 10.10.13.1 255.255.255.0
```

```
ip ospf 1 area 0 duplex auto
!
router ospf 1
router-id 10.10.12.1
network 10.10.1.1 0.0.0.0 area 0
network 192.168.1.0 0.0.0.255 area 0
!
copy run star
-----
On R2
conf terminal interface Loopback0
ip address 10.10.2.2 255.255.255.255
!
interface Loopback1
ip address 192.168.2.2 255.255.255.0
!
interface Ethernet0/0
no shut
ip address 10.10.12.2 255.255.255.0
ip ospf priority 255 ip ospf 1 area 0 duplex auto
!
interface Ethernet0/2 no shut
ip address 10.10.23.2 255.255.255.0
ip ospf priority 255 ip ospf 1 area 0 duplex auto
!
router ospf 1
network 10.10.2.2 0.0.0.0 area 0
network 192.168.2.0 0.0.0.255 area 0
!
copy runs start
-----
On R3
conf ter
interface Loopback0
ip address 10.10.3.3 255.255.255.255
!
interface Loopback1
ip address 192.168.3.3 255.255.255.0
!
interface Ethernet0/1 no shut
ip address 10.10.13.3 255.255.255.0
ip ospf 1 area 0 duplex auto
!
interface Ethernet0/2 no shut
ip address 10.10.23.3 255.255.255.0
ip ospf 1 area 0 duplex auto
!
router ospf 1
network 10.10.3.3 0.0.0.0 area 0
network 192.168.3.0 0.0.0.255 area 0
!
copy run start
!
```

NEW QUESTION 317

SIMULATION - (Topic 5)

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

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

Using the second subnet

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

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

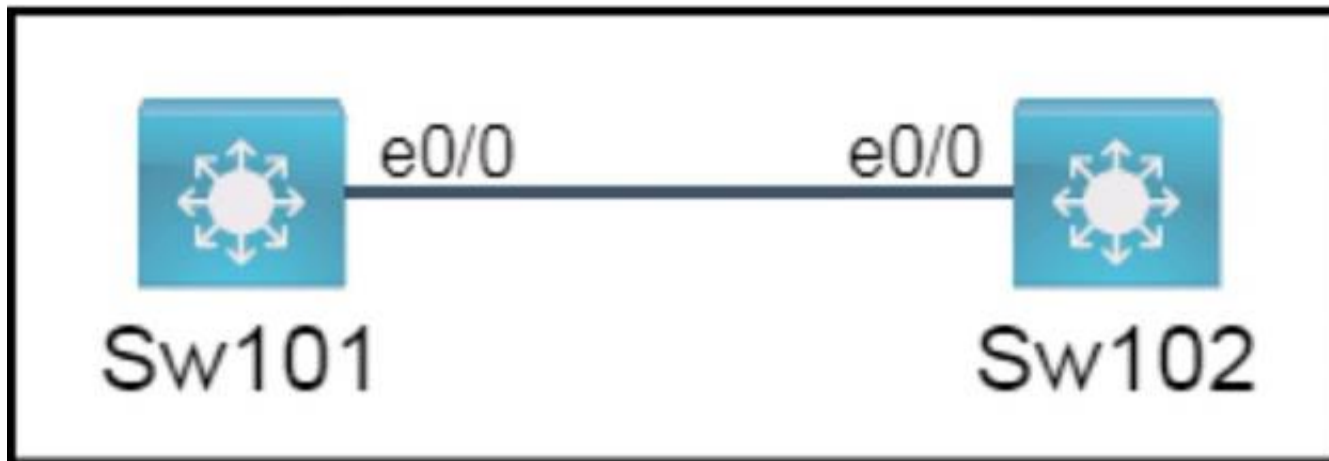
c Using the second subnet

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

Guidelines

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

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



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

? To subnet 172.25.0.0/16 to meet the subnet requirements and maximize the number of hosts, you need to determine how many bits you need to borrow from the host portion of the address to create enough subnets for 32 sites. Since 32 is 2^5 , you need to borrow 5 bits, which means your new subnet mask will be /21 or 255.255.248.0. To find the second subnet, you need to add the value of the fifth bit (32) to the third octet of the network address (0), which gives you 172.25.32.0/21 as the second subnet. The first usable IP address in this subnet is 172.25.32.1, and the last usable IP address is 172.25.39.254.

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

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

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

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

? To subnet an IPv6 GUA to meet the subnet requirements and maximize the number of hosts, you need to determine how many bits you need to borrow from the interface identifier portion of the address to create enough subnets for 32 sites. Since 32 is 2^5 , you need to borrow 5 bits, which means your new prefix length will be /69 or ffff:ffff:ffff:fff8::/69 (assuming that your IPv6 GUA has a /64 prefix by default). To find the second subnet, you need to add the value of the fifth bit (32) to the fourth hextet of the network address (0000), which gives you xxxx:xxxx:xxxx:0020::/69 as the second subnet (where xxxx:xxxx:xxxx is your IPv6 GUA prefix). The first and last IPv6 addresses in this subnet are xxxx:xxxx:xxxx:0020::1 and xxxx:xxxx:xxxx:0027:ffff:ffff:ffff:fffe respectively.

? To assign an IPv6 GUA using a unique 64-bit interface identifier on e0/0 on

Sw101, you need to enter the following commands on the device console (assuming that your IPv6 GUA prefix is 2001:db8::/64):

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

? To assign an IPv6 GUA using a unique 64-bit interface identifier on e0/0 on

Sw102, you need to enter the following commands on the device console (assuming that your IPv6 GUA prefix is 2001:db8::/64):

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

NEW QUESTION 318

- (Topic 4)

Which is a fact related to FTP?

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

Answer: D

NEW QUESTION 320

- (Topic 4)

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

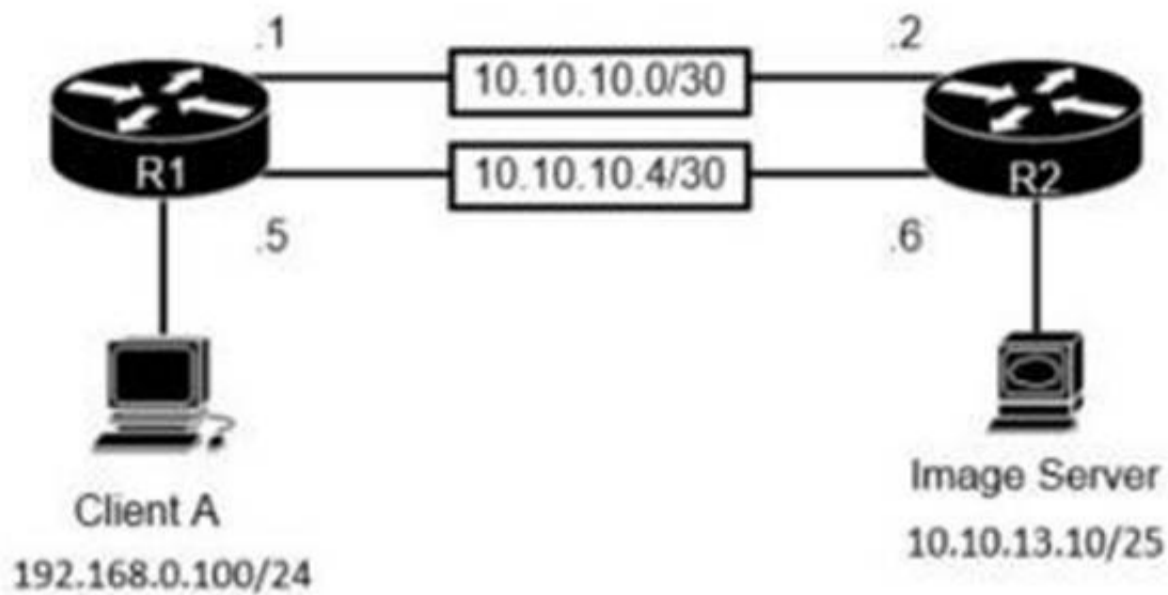
- A. service port
- B. virtual
- C. AP-Manager
- D. dynamic

Answer: A

NEW QUESTION 322

- (Topic 4)

Refer to the exhibit.



```
R1#show ip route
Gateway of last resort is 10.10.10.2 to network 0.0.0.0
S* 0.0.0.0/0 [1/0] via 10.10.10.2

R2#show ip route
Gateway of last resort is 10.10.10.1 to network 0.0.0.0
S* 0.0.0.0/0 [1/0] via 10.10.10.1
```

The image server and client A are running an application that transfers an extremely high volume of data between the two. An engineer is configuring a dedicated circuit between R1 and R2. Which set of commands must the engineer apply to the routers so that only traffic between the image server and client A is forced to use the new circuit?

- A. R1(config)#ip route 10.10.13.10 255.255.255.255 10.10.10.6R2(config)#ip route 192.168.0.100 255.255.255.255 10.10.10.5
- B. R1(config)#ip route 10.10.13.10 255.255.255.128 10.10.10.6R2(config)#ip route 192.168.0.100 255.255.255.0 10.10.10.5
- C. R1(config)#ip route 10.10.13.10 255.255.255.252 10.10.10.6R2(config)#ip route 192.168.0.100 255.255.255.252 10.10.10.5
- D. R1(config)#ip route 10.10.13.10 255.255.255.255 10.10.10.2R2(config)#ip route 192.168.0.100 255.255.255.255 10.10.10.1

Answer: D

NEW QUESTION 325

- (Topic 4)

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

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

Answer: D

NEW QUESTION 329

- (Topic 4)

Refer to the exhibit.

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

How many objects, Keys and JSON list values are present?

- A. three objects, two Keys, and three JSON list values
- B. three objects, three keys and two JSON MI values
- C. one object, three keys, and three JSON list values
- D. one object, three keys and two JSON list values

Answer: C

NEW QUESTION 330

- (Topic 4)

What happens when a switch receives a frame with a destination MAC address that recently aged out?

- A. The switch references the MAC address aging table for historical addresses on the port that received the frame.
- B. The switch floods the frame to all ports in all VLANs except the port that received the frame
- C. The switch drops the frame and learns the destination MAC address again from the port that received the frame
- D. The switch floods the frame to all ports in the VLAN except the port that received the frame.

Answer: D

NEW QUESTION 331

- (Topic 4)

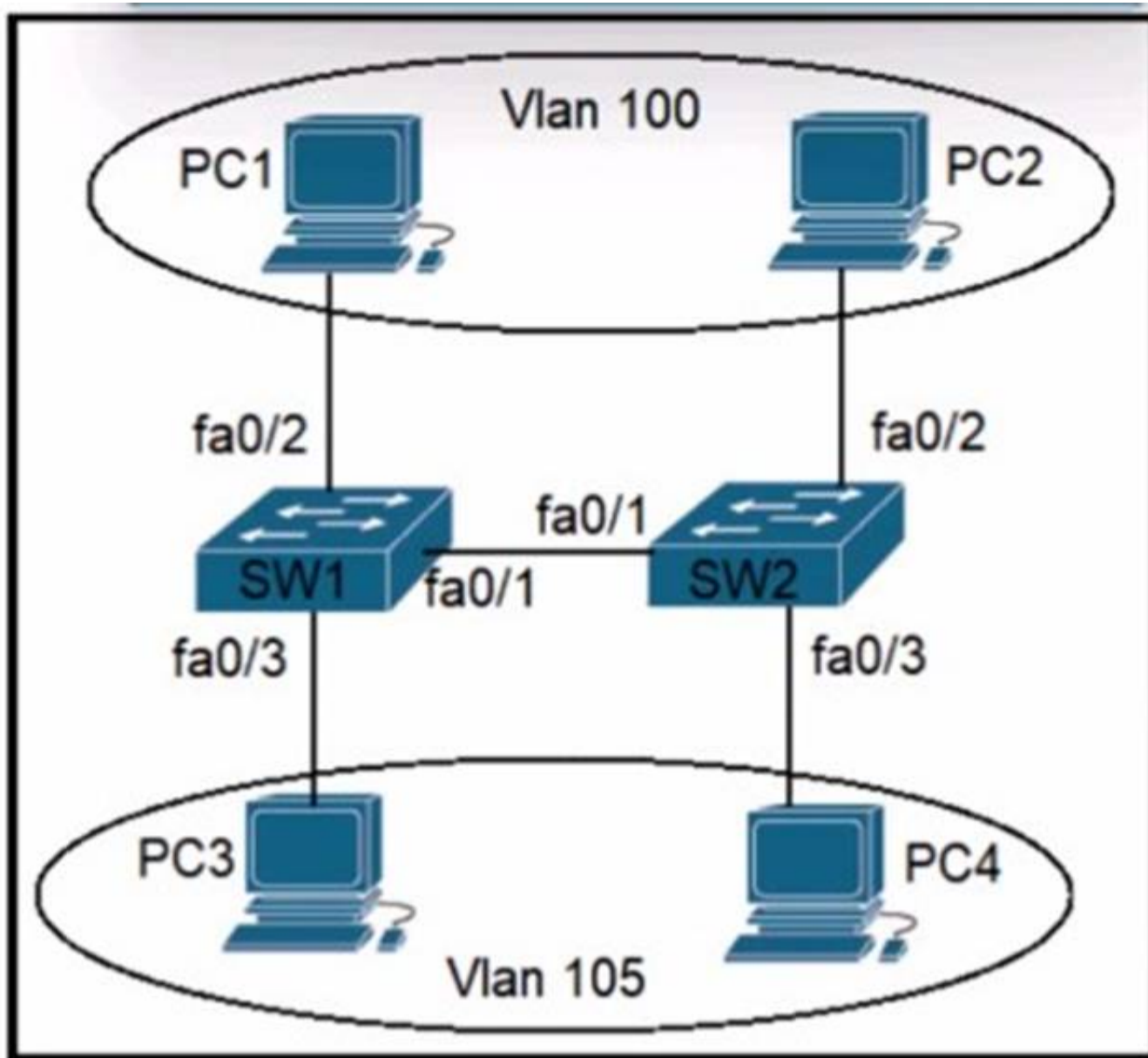
Which IPv6 address range is suitable for anycast addresses for distributed services such as DHCP or DNS?

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

Answer: A

NEW QUESTION 336

- (Topic 4)



A)

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

B)

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

C)

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

D)

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

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

Answer: B

NEW QUESTION 337

- (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 338

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

uses a 32-bit sequence number

ideal for voice traffic

provides support for retransmission of lost packets

offers minimal overhead within a packet

requires less computer resources

TCP

UDP

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

guarantees packet delivery

uses a 32-bit sequence number

ideal for voice traffic

provides support for retransmission of lost packets

offers minimal overhead within a packet

requires less computer resources

TCP

provides support for retransmission of lost packets

guarantees packet delivery

uses a 32-bit sequence number

UDP

ideal for voice traffic

requires less computer resources

offers minimal overhead within a packet

NEW QUESTION 343

- (Topic 4)

Which 802.11 frame type is Association Response?

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

Answer: A

NEW QUESTION 344

- (Topic 4)

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

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

Answer: B

NEW QUESTION 349

- (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 351

DRAG DROP - (Topic 4)
Drag and drop the TCP or UDP details from the left onto their corresponding protocols on the right.

transmitted based on data contained in the packet without the need for a data channel

provides best-effort service

requires the client and the server to establish a connection before sending the packet

supports reliable data transmission

TCP

UDP

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

transmitted based on data contained in the packet without the need for a data channel

provides best-effort service

requires the client and the server to establish a connection before sending the packet

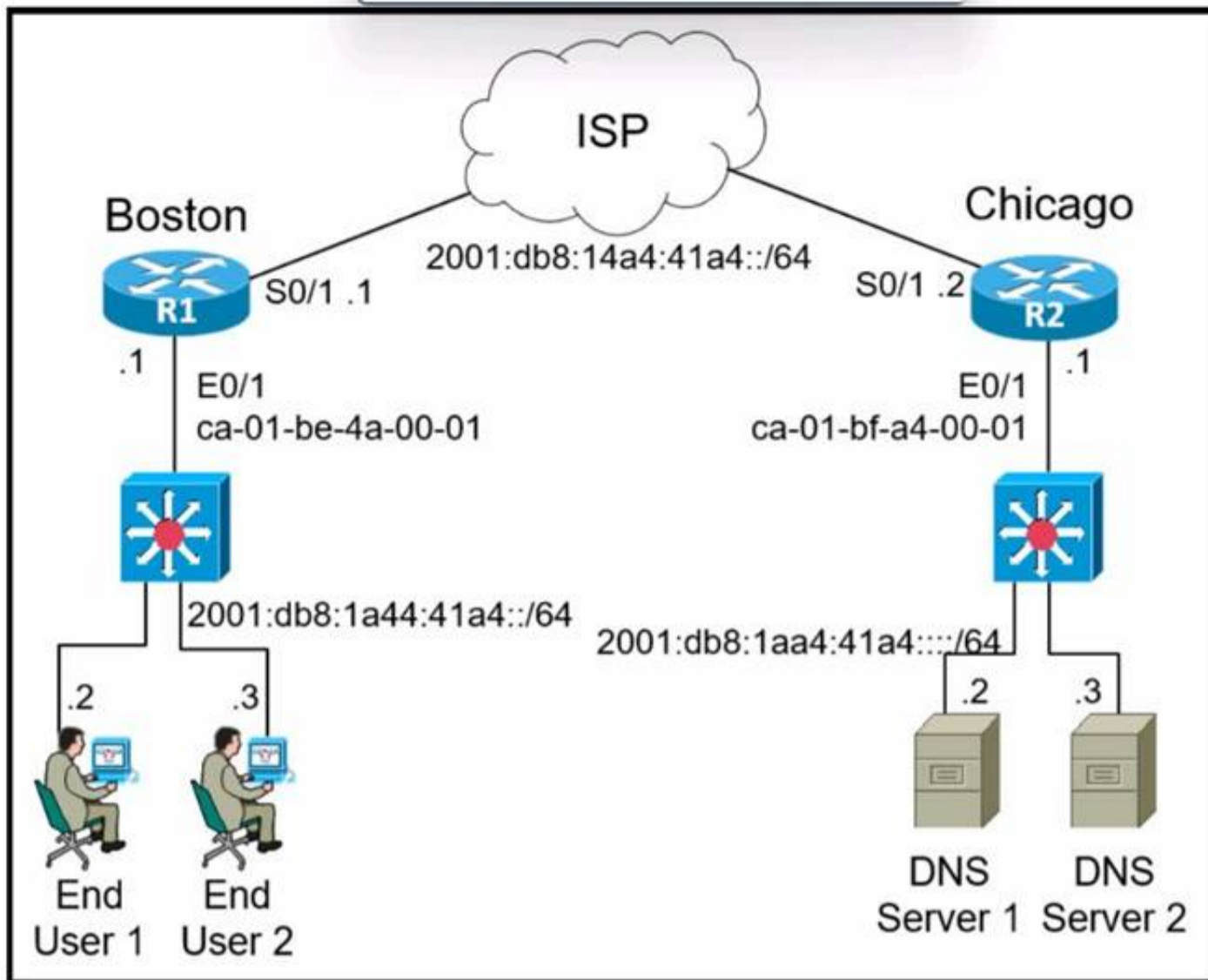
supports reliable data transmission

TCP

UDP

NEW QUESTION 355

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 357

- (Topic 4)

What is a benefit for external users who consume public cloud resources?

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

Answer: D

NEW QUESTION 358

- (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 362

- (Topic 4)

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

- A. OS
- B. hypervisor

- C. CPU
- D. physical enclosure

Answer: B

NEW QUESTION 363

DRAG DROP - (Topic 4)

Drag and drop the statements about networking from the left onto the corresponding networking types on the right. Not all statements are used.

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

- A. Mastered
- B. Not Mastered

Answer: A

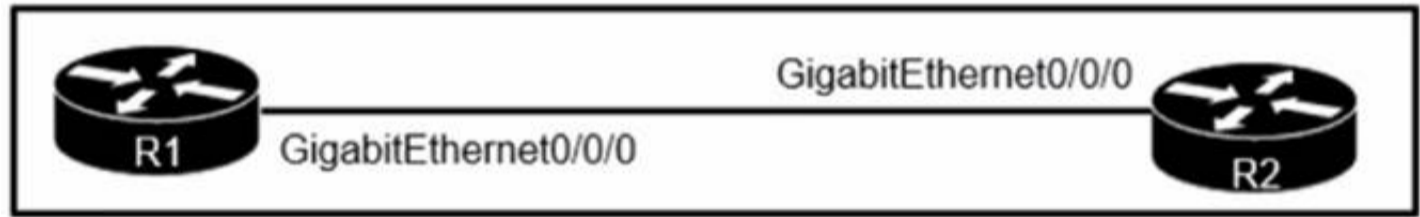
Explanation:

Controller-based Networking :- This type deploys a consistent configuration across multiple devices.– Southbound APIs are used to apply configurations.Traditional Networking :- A distributed control plane is needed.– This type requires a distributed management plane.
 On a SND network the control plane is centralized on the the SND controller not distributed on the networking devices.
 Northbound APIs do not interact with end devices. They allow the SND controller to interact with applications on the application plane

NEW QUESTION 368

- (Topic 4)

Refer to the exhibit.



A network engineer must configure the link with these requirements:

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

A)

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

B)

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

C)

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

D)

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

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

Answer: B

Explanation:

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

NEW QUESTION 371

- (Topic 4)

Which security method is used to prevent man-in-the-middle attack?

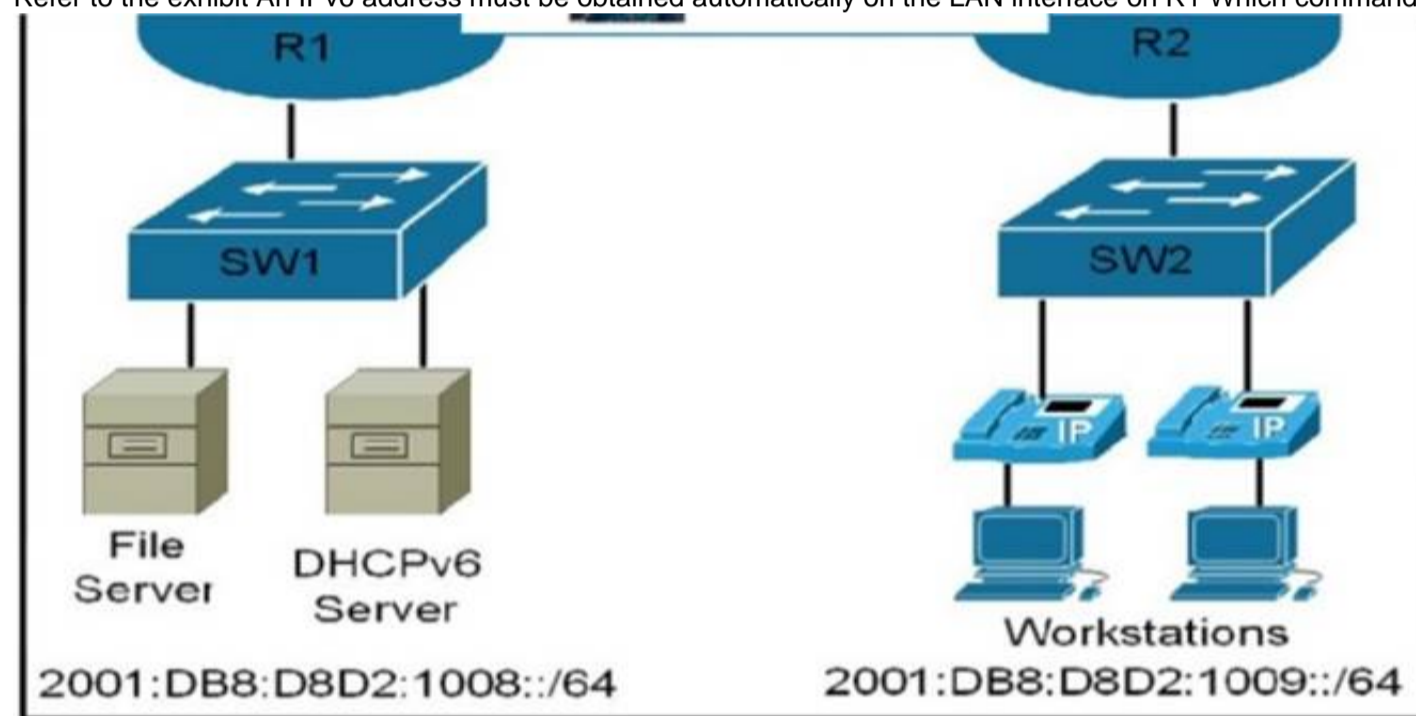
- A. authorization
- B. authentication
- C. anti-replay
- D. accounting

Answer: B

NEW QUESTION 374

- (Topic 4)

Refer to the exhibit An IPv6 address must be obtained automatically on the LAN interface on R1 Which command must be implemented to accomplish the task?

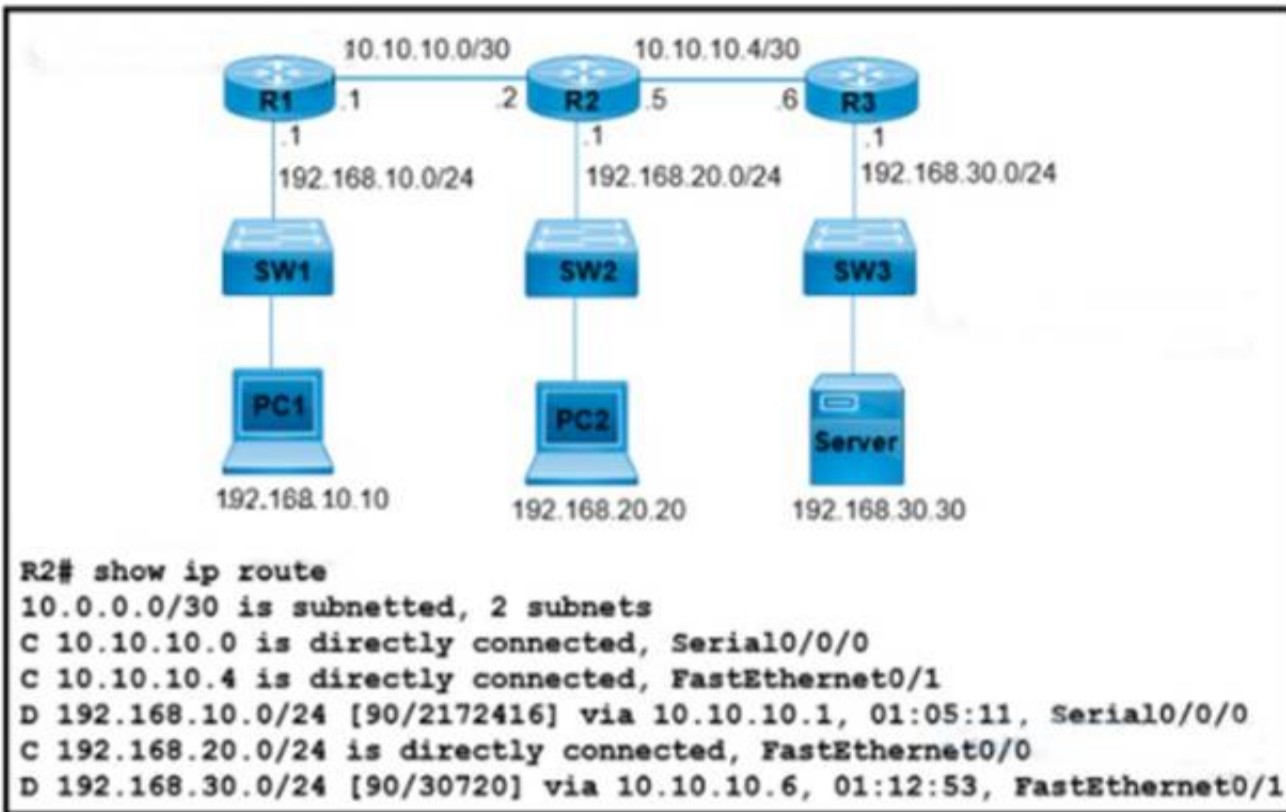


- A. Ipv6 address 2001:dbB:d8d2:1008:4343:61:0010::/64
- B. Ipv6 address autoconfig
- C. Ipv6 address fe80::/10
- D. Ipv6 address dhcp

Answer: B

NEW QUESTION 378

- (Topic 4)



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

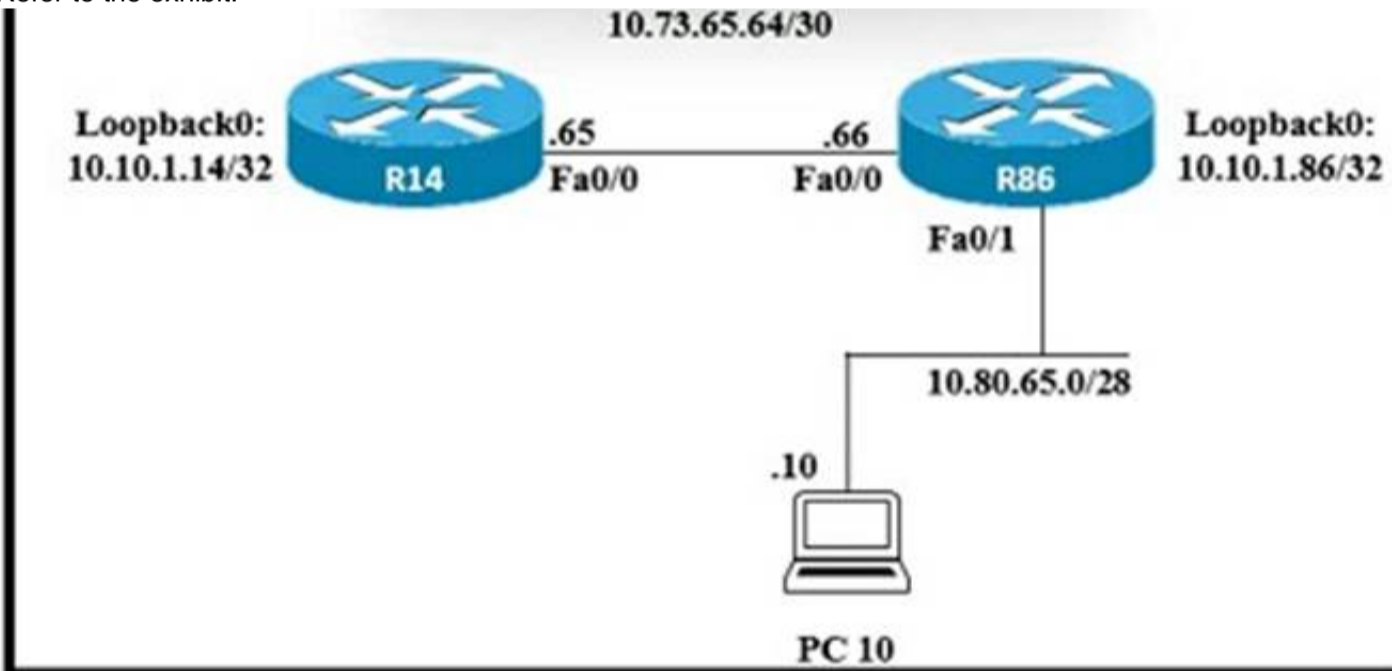
- A. 192.168.30.1
- B. 10.10.10.5
- C. 10.10.10.6
- D. 192.168.20.1

Answer: D

NEW QUESTION 380

- (Topic 4)

Refer to the exhibit.



Router R14 is in the process of being configured. Which configuration must be used to establish a host route to PC 10?

- A. ip route 10.80.65.10 255.255.255.254 10.80.65.1
- B. ip route 10.8065.10 255.255.255.255 10.73.65.66
- C. ip route 1073.65.65 255.0.0.0 10.80.65.10
- D. ip route 10.73.65.66 0.0.0.255 10.80.65.10

Answer: B

NEW QUESTION 381

- (Topic 4)

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

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

Answer: B

NEW QUESTION 385

- (Topic 4)

What is a benefit of using private IPv4 addressing?

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

Answer: A

NEW QUESTION 390

- (Topic 4)
Why would VRRP be implemented when configuring a new subnet in a multivendor environment?

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

Answer: A

NEW QUESTION 393

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.

It enables the device to allow user- or group-based access.

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 is able to perform.

It uses TACACS+ to log the configuration commands entered by a network administrator.

It verifies the user before granting access to the device.

Authentication

Authorization

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

It enables the device to allow user- or group-based access.

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 is able to perform.

It uses TACACS+ to log the configuration commands entered by a network administrator.

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Authentication

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.

Authorization

It leverages a RADIUS server to grant user access to a reverse Telnet session.

It restricts the CLI commands that a user is able to perform.

NEW QUESTION 397

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

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

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D. switchport port-security mac-address abcd.abcd.abcd vlan voice

Answer: A

NEW QUESTION 398

- (Topic 4)

A wireless access point is needed and must meet these requirements:

- "zero-touch" deployed and managed by a WLC
- process only real-time MAC functionality
- used in a split-MAC architecture. Which access point type must be used?

- A. autonomous
- B. lightweight
- C. mesh
- D. cloud-based

Answer: B

Explanation:

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

NEW QUESTION 401

- (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 403

- (Topic 4)

When is the PUT method used within HTTP?

- A. when a nonidempotent operation is needed
- B. to update a DNS server
- C. to display a web site
- D. when a read-only operation is required

Answer: B

NEW QUESTION 408

- (Topic 4)

How does authentication differ from authorization?

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

Answer: A

NEW QUESTION 411

DRAG DROP - (Topic 4)

Drag and drop the configuration management terms from the left onto the descriptions on the right. Not all terms are used.

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

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

agent	pull
agentless	push
provision	agent
pull	agentless
push	provision
post	

NEW QUESTION 414

- (Topic 4)

What are two capabilities provided by VRRP within a LAN network? (Choose two.)

- A. dynamic routing updates
- B. bandwidth optimization
- C. granular QoS
- D. load sharing
- E. redundancy

Answer: AC

Explanation:

Redundancy— VRRP enables you to configure multiple routers as the default gateway router, which reduces the possibility of a single point of failure in a network.
Load Sharing—You can configure VRRP in such a way that traffic to and from LAN clients can be shared by multiple routers, thereby sharing the traffic load more equitably among available router

NEW QUESTION 417

- (Topic 4)
What are two protocols within the IPsec suite? (Choose two)

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

Answer: DE

NEW QUESTION 418

- (Topic 4)
Refer to the exhibit.

```
Output from R1

GigabitEthernet0/0/1 is up, line protocol is down
Hardware is SPA-10X1GE-V2, address is 0023.33ee.7c00 (bia 0023.33ee.7c00)
MTU 1500 bytes, BW 1000000 Kbit/sec, DLY 10 usec,
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive not supported
Half Duplex, 1000Mbps, link type is auto, media type is LX
output flow-control is off, input flow-control is off
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:01, output 00:02:31, output hang never

10 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
0 watchdog, 314 multicast, 0 pause input
1 packets output, 77 bytes, 0 underruns
0 output errors, 50 collisions, 6 interface resets
17 unknown protocol drops
0 babbles, 0 late collision, 0 deferred
```

What is the issue with the interface GigabitEthernet0/0/1?

- A. Port security
- B. High throughput
- C. Cable disconnect
- D. duplex mismatch

Answer: C

NEW QUESTION 422

DRAG DROP - (Topic 4)
Drag and drop the Rapid PVST+ forwarding state actions from the left to the right. Not all actions are used.

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

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

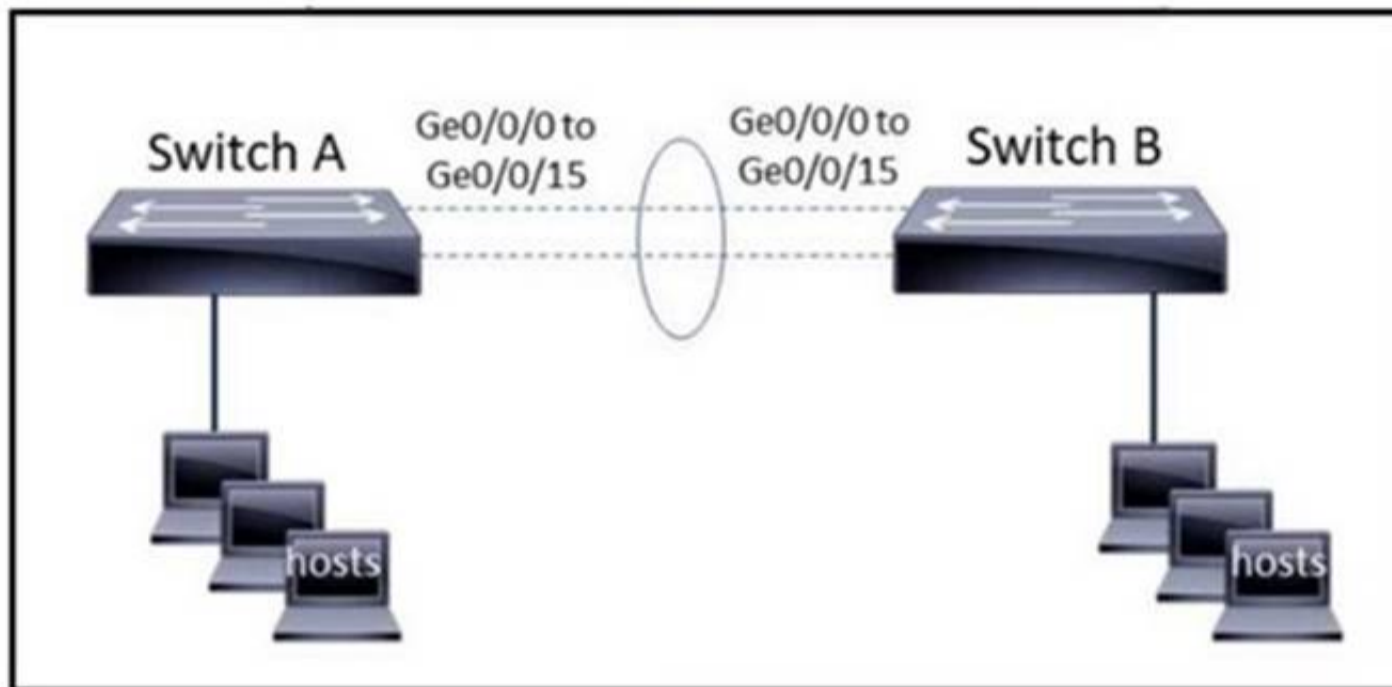
- * 1. BPDUs received are forwarded to the system module.
- * 2. Frames received from the attached segment are processed.
- * 3. Switched frames received from other ports are advanced.
- * 4. The port in the forwarding state responds to network management messages.

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

NEW QUESTION 423

- (Topic 4)

Refer to the exhibit.



The EtherChannel is configured with a speed of 1000 and duplex as full on both ends of channel group 1. What is the next step to configure the channel on switch A to respond to but not initiate LACP communication?

- A. interface range gigabitethernet0/0/0-15 channel-group 1 mode on
- B. interface range gigabitethernet0/0/0-15 channel-group 1 mode desirable
- C. interface port-channel 1 channel-group 1 mode auto
- D. interface port-channel 1 channel-group 1 mode passive

Answer: D

NEW QUESTION 425

- (Topic 4)

Refer to the exhibit.

```
Last clearing of "show interface" counters never
Input queue: 1/75/1/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: random early detection (RED)
Output queue : 0/40 (size/max)
5 minute input rate 1000 bits/sec, 2 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
 7558065 packets input, 783768942 bytes, 1 no buffer
Received 8280963 broadcasts, 0 runts, 0 giants, 1 throttles
15 input errors, 14278 CRC, 0 frame, 0 overrun, 3 ignored
0 input packets with dribble condition detected
798092 packets output, 50280266 bytes, 0 underruns
0 output errors, 15000 collisions, 0 interface resets
0 babbles, 0 late collision, 179 deferred
0 lost carrier, 0 no carrier
0 output buffer failures, 0 output buffers swapped out
```

An administrator received a call from a branch office regarding poor application performance hosted at the headquarters. Ethernet 1 is connected between Router1 and the LAN switch. What identifies the issue?

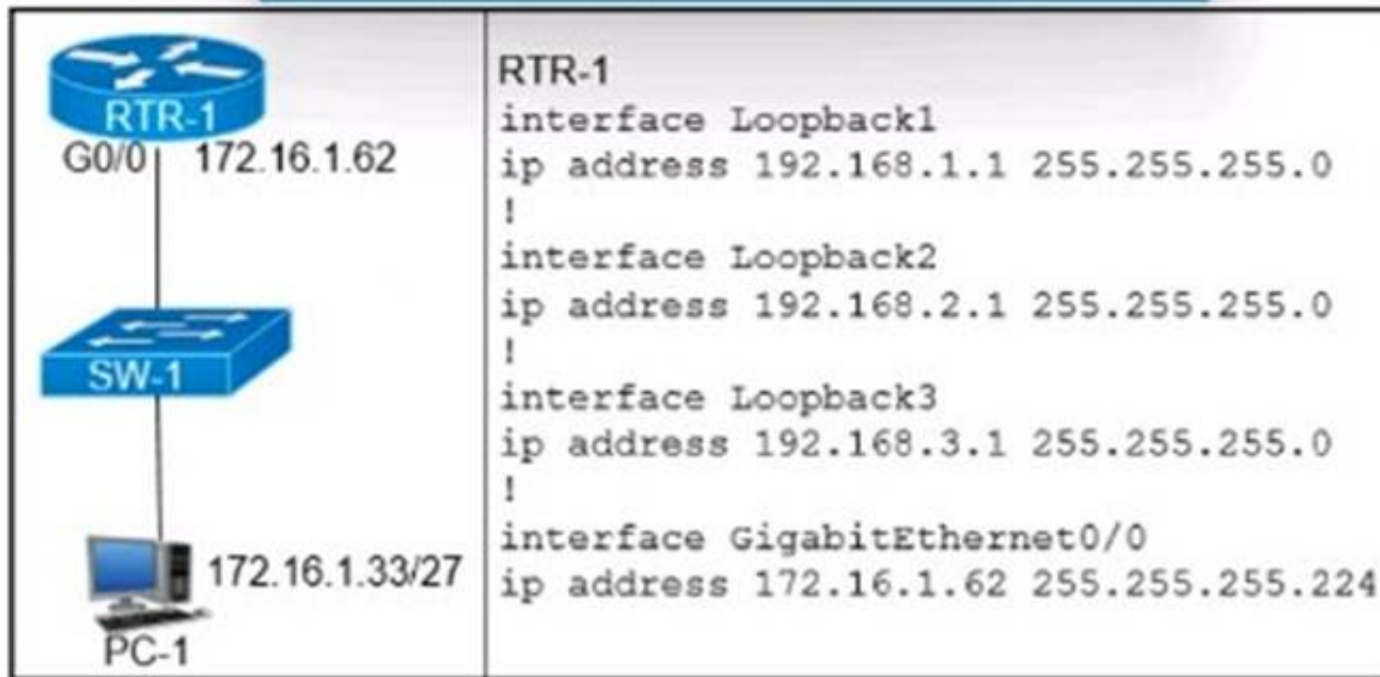
- A. The QoS policy is dropping traffic.
- B. There is a duplex mismatch.
- C. The link is over utilized.
- D. The MTU is not set to the default value.

Answer: C

NEW QUESTION 429

- (Topic 4)

Refer to the exhibit.



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

A)

```

access-list 100 deny tcp host 172.16.1.33 any eq 22
access-list 100 permit ip any any

```

```

interface GigabitEthernet0/0
ip access-group 100 in

```

B)

```

access-list 100 deny tcp host 172.16.1.33 any eq 22
access-list 100 permit ip any any

```

```

line vty 0 15
access-class 100 in

```

C)

```

access-list 100 deny tcp host 172.16.1.33 any eq 23
access-list 100 permit ip any any

```

```

interface GigabitEthernet0/0
ip access-group 100 in

```

D)

```

access-list 100 deny tcp host 172.16.1.33 any eq 23
access-list 100 permit ip any any

```

```

line vty 0 15
access-class 100 in

```

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

Answer: B

NEW QUESTION 433

- (Topic 4)

Refer to the exhibit.

```

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

```

What does route 10.0.1.3/32 represent in the routing table?

- A. the 10.0.0.0 network
- B. a single destination address
- C. the source 10.0.1.100
- D. all hosts in the 10.0.1.0 subnet

Answer: A

NEW QUESTION 436

DRAG DROP - (Topic 4)

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

is unable to route on the internet

is a counterpart of private IPv4 addresses

enables aggregation of routing prefixes

is routable and reachable via the Internet

Global Unicast Address

Unique Local

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

is unable to route on the internet

is a counterpart of private IPv4 addresses

enables aggregation of routing prefixes

is routable and reachable via the Internet

Global Unicast Address

Unique Local

NEW QUESTION 438

- (Topic 4)

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

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

Answer: B

NEW QUESTION 440

- (Topic 4)

Which interface enables communication between a program on the controller and a program on the networking devices?

- A. northbound interface
- B. software virtual interface
- C. southbound interface
- D. tunnel Interface

Answer: B

NEW QUESTION 441

- (Topic 4)

Refer to the exhibit.

```
Router1#show ip route
Gateway of last resort is 10.10.11.2 to network 0.0.0.0

    209.165.200.0/27 is subnetted, 1 subnets
B       209.165.200.224 [20/0] via 10.10.12.2, 03:22:14
    209.165.201.0/27 is subnetted, 1 subnets
B       209.165.201.0 [20/0] via 10.10.12.2, 02:26:33
    209.165.202.0/27 is subnetted, 1 subnets
B       209.165.202.128 [20/0] via 10.10.12.2, 02:26:03
    10.0.0.0/8 is variably subnetted, 8 subnets, 4 masks
C       10.10.10.0/28 is directly connected, GigabitEthernet0/0
C       10.10.11.0/30 is directly connected, FastEthernet2/0
C       10.10.12.0/30 is directly connected, GigabitEthernet0/1
O       10.10.13.0/25 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
O       10.10.13.128/28 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
O       10.10.13.144/28 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
O       10.10.13.160/29 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
O       10.10.13.208/29 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
S*    0.0.0.0/0 [1/0] via 10.10.11.2
```

What is the subnet mask of the route to the 10.10.13.160 prefix?

- A. 255.255.255.240
- B. 255.255.255.128
- C. 255.255.248.
- D. 255.255.255.248

Answer: D

NEW QUESTION 442

- (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 447

- (Topic 4)

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

- A. It groups two or more routers to operate as one virtual router.
- B. It improves network availability by providing redundant gateways.
- C. It passes configuration information to hosts in a TCP/IP network.
- D. It helps hosts on the network to reach remote subnets without a default gateway.
- E. It provides a mechanism for diskless clients to autoconfigure their IP parameters during boot.

Answer: AB

NEW QUESTION 450

- (Topic 4)

Refer to the exhibit.

```
CPE1# show protocols e0/1
Ethernet0/1 is up, line protocol is up
Internet address is 10.0.12.2/24

CPE1# show ip access-list LAN
Standard IP access list LAN
10 permit 10.0.12.0, wildcard bits 0.0.0.255

CPE1# show ip nat translations

CPE1# show ip nat statistics
Total active translations: 0 (0 static, 0 dynamic; 0 extended)
Peak translations: 0
Outside interfaces:
Inside interfaces:
Ethernet0/1
Hits: 0 Misses: 0
CEF Translated packets: 0, CEF Punted packets: 0
Expired translations: 0
Dynamic mappings:
-- Inside Source
[Id: 1] access-list LAN pool NATPOOL refcount 0
pool NATPOOL: netmask 255.255.255.0
start 198.51.100.11 end 198.51.100.20
type generic, total addresses 10, allocated 0 (0%), misses 0

Total doors: 0
Appl doors: 0
Normal doors: 0
Queued Packets: 0
```

What is the next step to complete the implementation for the partial NAT configuration shown?

- A. Reconfigure the static NAT entries that overlap the NAT pool
- B. Configure the NAT outside interface
- C. Modify the access list for the internal network on e0/1
- D. Apply the ACL to the pool configuration

Answer: A

NEW QUESTION 455

- (Topic 4)

Refer to the exhibit.

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

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

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

Answer: D

NEW QUESTION 460

- (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 461

DRAG DROP - (Topic 4)

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

This type implements changes individually at each device.

This type leverages controllers to handle network management.

Maintenance costs are higher than with other networking options.

This type provides a centralized view of the network.

Traditional Networking

Controller-Based Networking

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

This type implements changes individually at each device.

This type leverages controllers to handle network management.

Maintenance costs are higher than with other networking options.

This type provides a centralized view of the network.

Traditional Networking

This type implements changes individually at each device.

Maintenance costs are higher than with other networking options.

Controller-Based Networking

This type leverages controllers to handle network management.

This type provides a centralized view of the network.

NEW QUESTION 462

- (Topic 4)

Which two transport layer protocols carry syslog messages? (Choose two.)

- A. TCP
- B. IP
- C. RTP
- D. UDP
- E. ARP

Answer: AD

NEW QUESTION 466

- (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 471

- (Topic 4)

Which channel-group mode must be configured when multiple distribution interfaces connected to a WLC are bundled?

- A. Channel-group mode passive.
- B. Channel-group mode on.
- C. Channel-group mode desirable.
- D. Channel-group mode active.

Answer: B

NEW QUESTION 476

- (Topic 4)

Refer to the exhibit. IPv6 must be implemented on R1 to the ISP The uplink between R1 and the ISP must be configured with a manual assignment, and the LAN interface must be self-provisioned Both connections must use the applicable IPv6 networks Which two configurations must be applied to R1? (Choose two.)

- A. interface Gi0/1ipv6 address 2001:db8:0F1B:FCCB:ACCE:FCED:ABCD:FA02:/127
- B. interface Gi0/0ipv6 address 2001:db8:1:AFFF::/64 eui-64
- C. interface Gi0/1ipv6 address 2001:db8:0F1B:FCCB:ACCE:FCED:ABCD:FA00:/127
- D. interface Gi0/0ipv6 address 2001:db8:0:AFFF::/64 eui-64
- E. interface Gi0/0ipv6 address 2001:db8:0F1B:FCCB:ACCE:FCED:ABCD:FA03;/127

Answer: CD

NEW QUESTION 479

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

transmissions include an 8-byte header

transmits packets as a stream

transmits packets individually

uses a higher transmission rate to support latency-sensitive applications

uses a lower transmission rate to ensure reliability

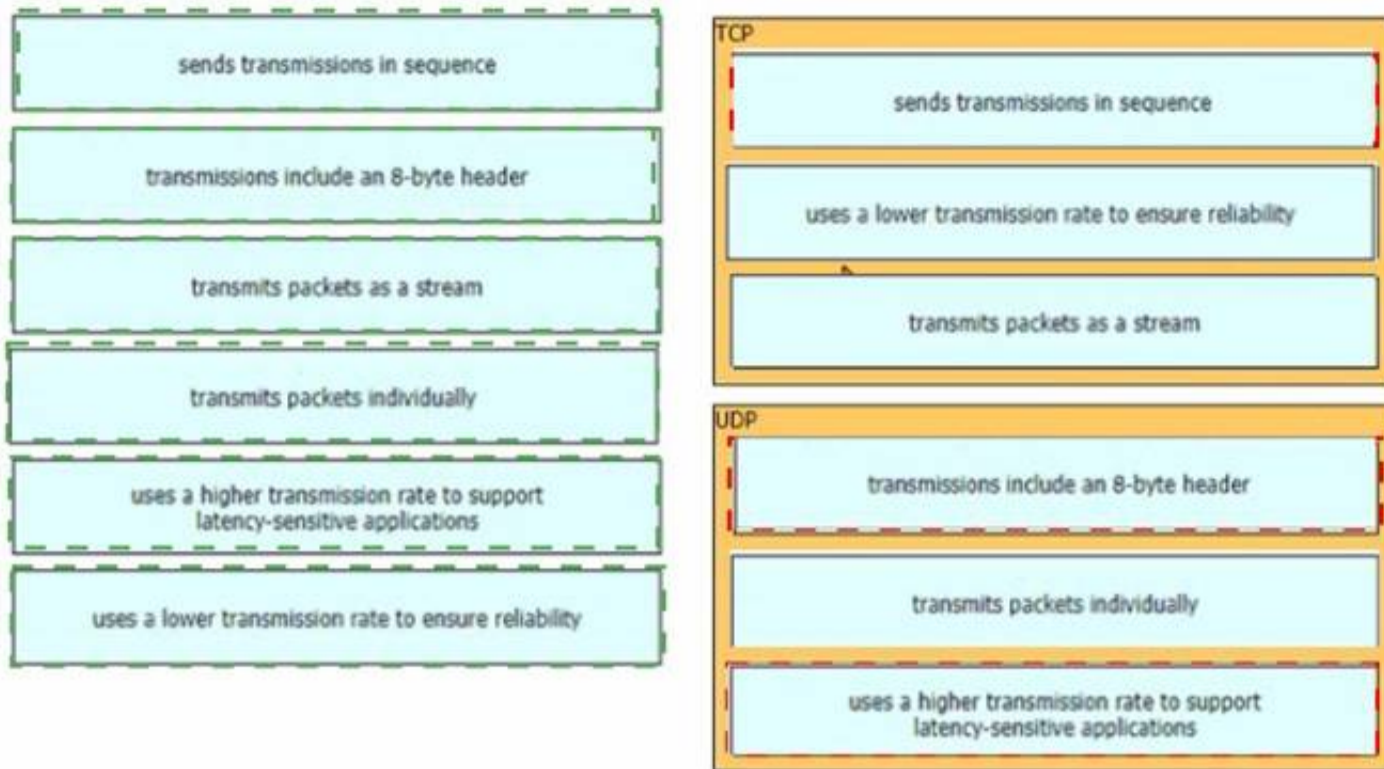
TCP

UDP

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 484

- (Topic 4)

What is the put method within HTTP?

- A. It is a read-only operation.
- B. It is a nonidempotent operation.
- C. It replaces data at the destination.
- D. It displays a web site.

Answer: D

NEW QUESTION 487

- (Topic 4)

Which cable type must be used to interconnect one switch using 1000 BASE-SX GBiC modules and another switch using 1000 BASE-SX SFP modules?

- A. LC to SC
- B. SC to ST
- C. SC to SC
- D. LC to LC

Answer: D

NEW QUESTION 488

- (Topic 4)

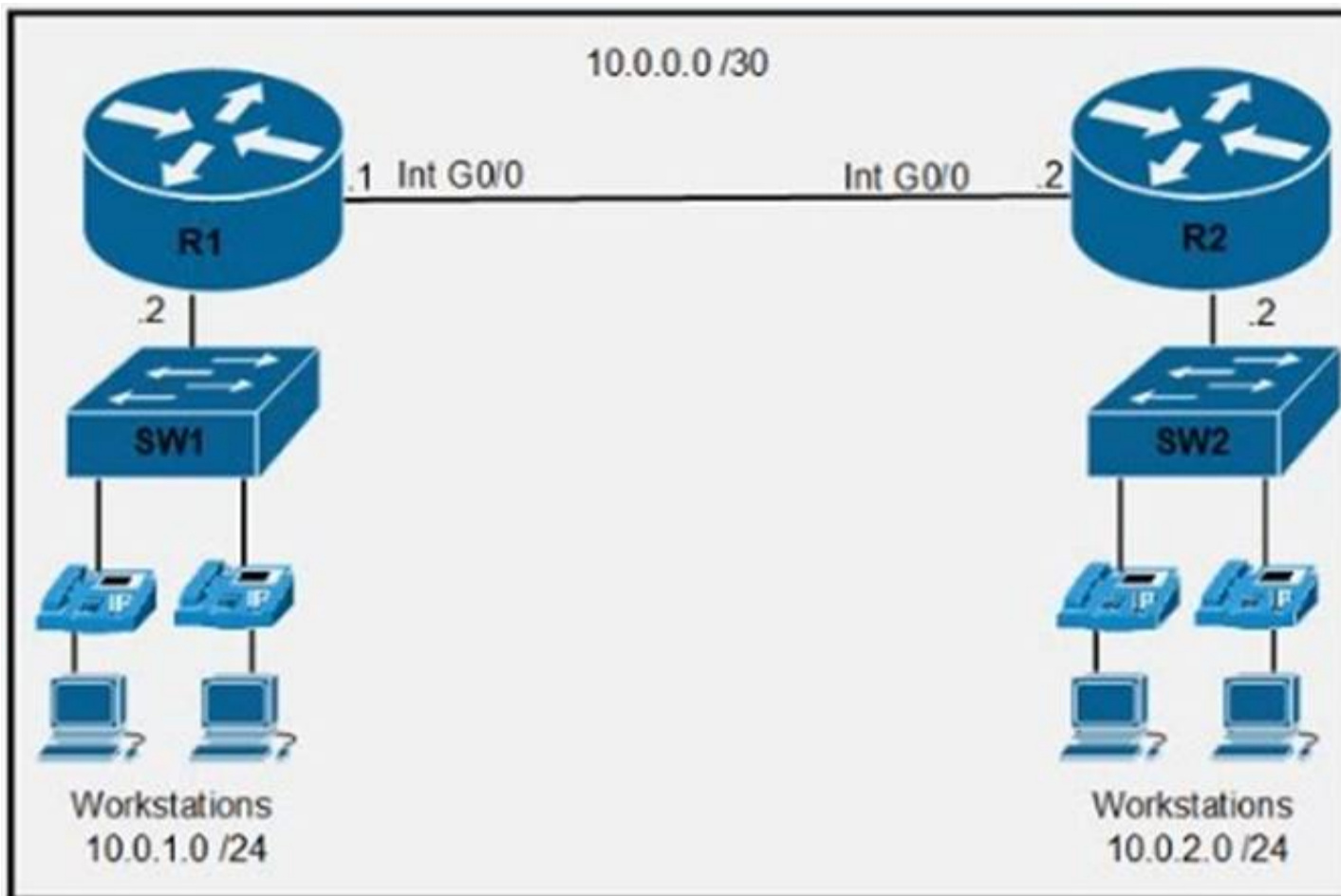
An administrator must use the password complexity not manufacturer-name command to prevent users from adding "cisco" as a password. Which command must be issued before this command?

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

Answer: A

NEW QUESTION 489

- (Topic 4)



Refer to the exhibit. An engineer is asked to configure router R1 so that it forms an OSPF single-area neighbor relationship with R2. Which command sequence must be implemented to configure the router?

- ☐ router ospf 10
network 10.0.0.0 0.0.0.3 area 0
network 10.0.2.0 0.0.0.255 area 0
- ☐ router ospf 10
network 10.0.0.0 0.0.0.3 area 0
network 10.0.1.0 0.0.0.255 area 0
- ☐ router ospf 100
network 10.0.0.0 0.0.0.3 area 0
network 10.0.2.0 255.255.255.0 area 0
- ☐ router ospf 100
network 10.0.0.0 0.0.0.252 area 0
network 10.0.1.0 0.0.0.255 area 0

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

Answer: B

NEW QUESTION 493

- (Topic 4)

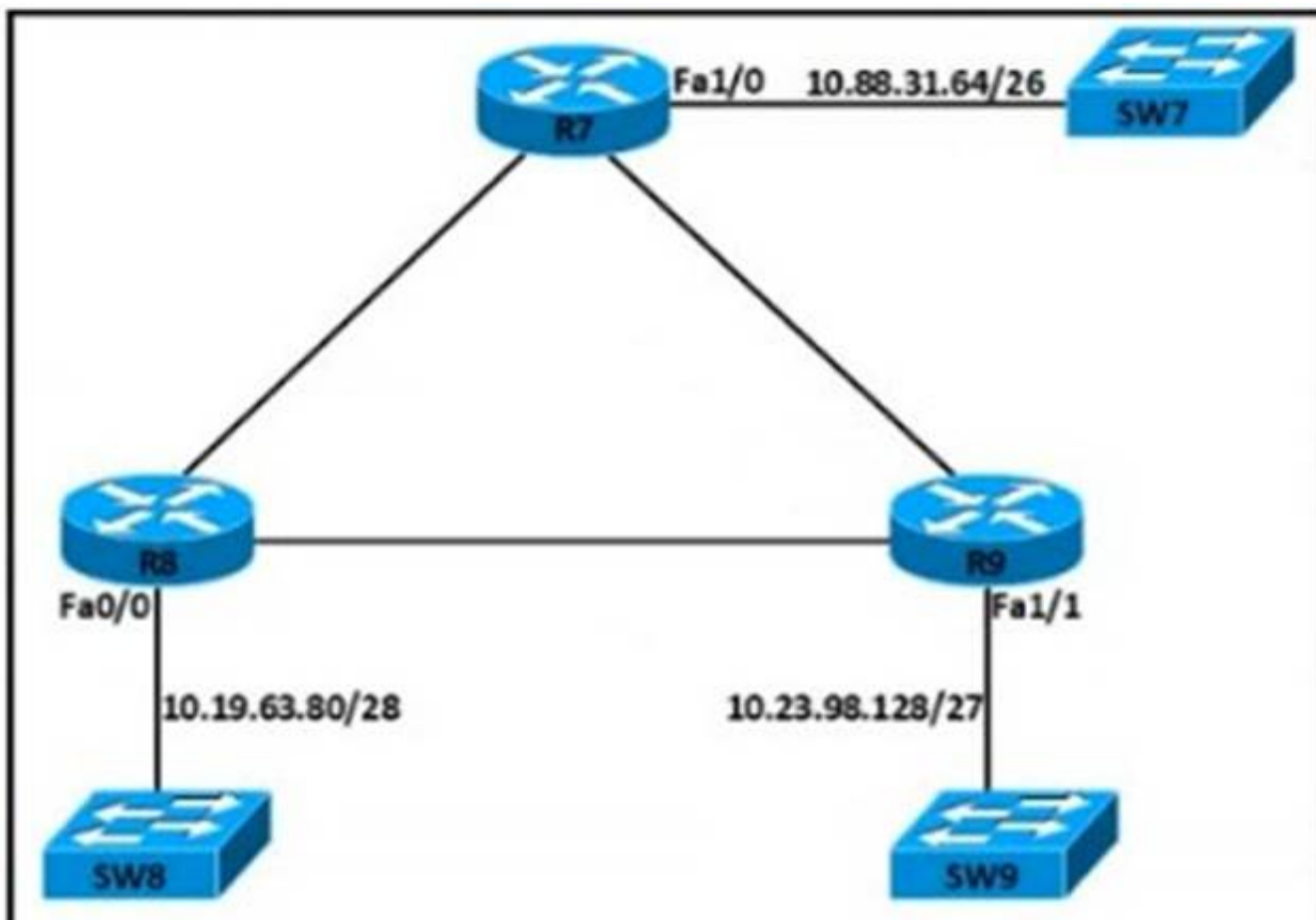
Which two VPN technologies are recommended by Cisco for multiple branch offices and large-scale deployments? (Choose two.)

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

Answer: BE

NEW QUESTION 494

- (Topic 4)



Refer to the exhibit. Each router must be configured with the last usable IP address in the subnet. Which configuration fulfills this requirement?

- ☐ R7#
interface FastEthernet1/0
ip address 10.88.31.126 255.255.255.240
- R8#
interface FastEthernet0/0
ip address 10.19.63.94 255.255.255.192
- R9#
interface FastEthernet1/1
ip address 10.23.98.158 255.255.255.248
- ☐ R7#
interface FastEthernet1/0
ip address 10.88.31.127 255.255.255.240
- R8#
interface FastEthernet0/0
ip address 10.19.63.95 255.255.255.192
- R9#
interface FastEthernet1/1
ip address 10.23.98.159 255.255.255.248
- ☒ R7#
interface FastEthernet1/0
ip address 10.88.31.126 255.255.255.192
- R8#
interface FastEthernet0/0
ip address 10.19.63.94 255.255.255.240
- R9#
interface FastEthernet1/1
ip address 10.23.98.158 255.255.255.224
- ☐ R7#
interface FastEthernet1/0
ip address 10.88.31.127 255.255.255.192
- R8#
interface FastEthernet0/0
ip address 10.19.63.95 255.255.255.240
- R9#
interface FastEthernet1/1
ip address 10.23.98.159 255.255.255.224

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

Answer: C

NEW QUESTION 497

- (Topic 4)

What is the purpose of configuring different levels of syslog for different devices on the network?

- A. to rate-limit messages for different severity levels from each device
- B. to set the severity of syslog messages from each device
- C. to identify the source from which each syslog message originated
- D. to control the number of syslog messages from different devices that are stored locally

Answer: B

NEW QUESTION 501

- (Topic 4)

Which device separates networks by security domains?

- A. firewall
- B. access point
- C. intrusion protection system
- D. wireless controller

Answer: A

Explanation:

Firewalls are devices that are used to separate networks into different security domains. They act as a barrier between two networks and control the flow of traffic between them. Firewalls use a set of rules to determine what types of traffic are allowed to pass through and what is blocked. This helps protect a network from malicious traffic and unauthorized access. Additionally, firewalls can be configured to log traffic and provide additional security measures such as packet filtering and stateful inspection.

NEW QUESTION 505

- (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 508

DRAG DROP - (Topic 4)

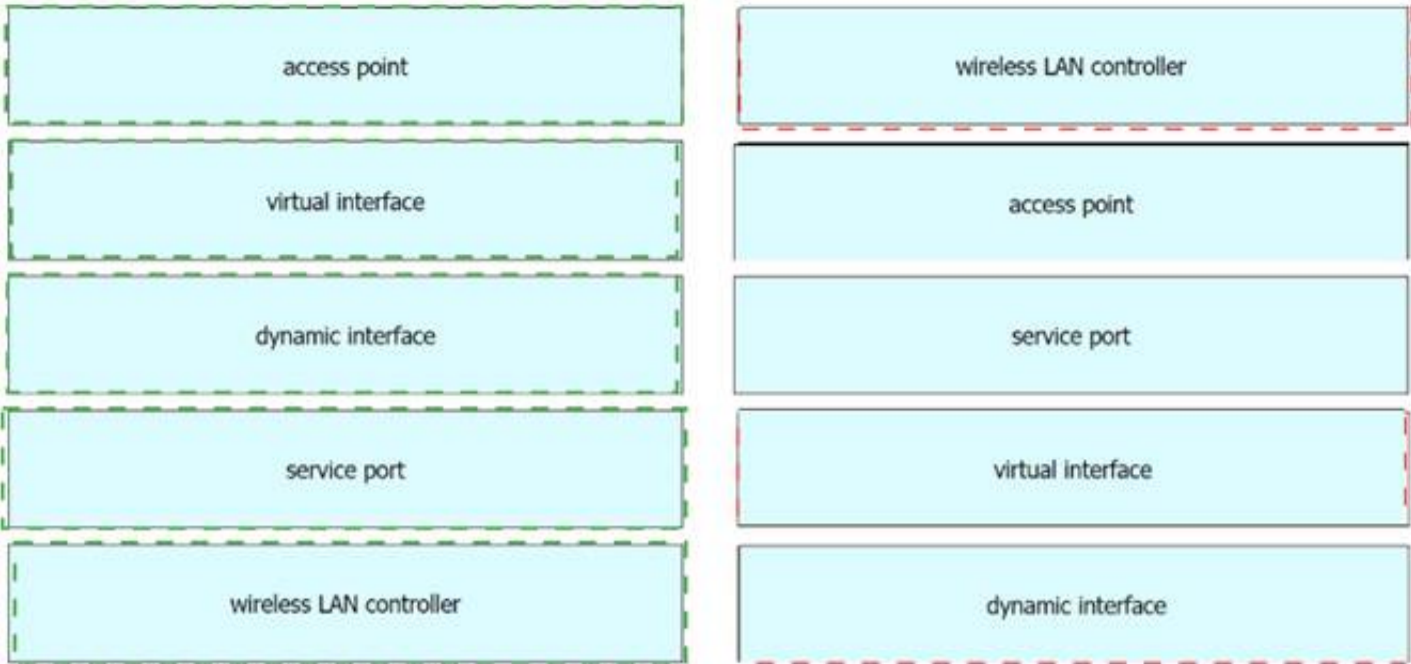
Drag and drop the WLAN components from the left onto the component details on the right.

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

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 509

- (Topic 4)
Which properly is shared by 10GBase-SR and 10GBase-LR interfaces?

- A. Both require fiber cable media for transmission.
- B. Both require UTP cable media for transmission.
- C. Both use the single-mode fiber type.
- D. Both use the multimode fiber type.

Answer: A

NEW QUESTION 510

- (Topic 4)
Refer to the exhibit.

```
Connection-specific DNS Suffix . : 
Description . . . . . : Intel(R) Ethernet Connection (2) I218-V
Physical Address. . . . . : D0-50-99-47-A9-7F
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . : Yes
Link-local IPv6 Address . . . . . : fe80::8809:9772:c583:6b18%15(Preferred)
IPv4 Address. . . . . : 192.168.69.132(Preferred)
Subnet Mask . . . . . : 255.255.255.0
Lease Obtained. . . . . : Thursday, January 21, 2021 11:10:46 PM
Lease Expires . . . . . : Wednesday, February 3, 2021 11:27:29 AM
Default Gateway . . . . . : 192.168.69.1
DHCP Server . . . . . : 192.168.69.1
DHCPv6 IAID . . . . . : 231755929
DHCPv6 Client DUID. . . . . : 00-01-00-01-26-D7-BB-3F-D0-50-99-47-A9-7F
DNS Servers . . . . . : 192.168.69.1
NetBIOS over Tcpip. . . . . : Enabled
```

- What does the host do when using the IPv4 Preferred function?
- A. It continues to use a statically assigned IPv4 address
 - B. It forces the DNS server to provide the same IPv4 address at each renewal.
 - C. It requests the same IPv4 address when it renews its lease with the DHCP server.
 - D. It prefers a pool of addresses when renewing the IPv4 host IP address

Answer: C

NEW QUESTION 515

- (Topic 4)
Refer to the exhibit.

A)

Select **WPA Policy**
 Select **WPA2 Policy**
 Enable **FT PSK**

B)

Select **WPA2 Policy**
 Disable **PMF**
 Enable **PSK**

C)

Select **WPA Policy**
 Enable **CCKM**
 Enable **PSK**

D)

Disable **PMF**
 Enable **PSK**
 Enable **802.1x**

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

Answer: C

NEW QUESTION 516

- (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 517

- (Topic 4)

A Cisco engineer at a new branch office is configuring a wireless network with access points that connect to a controller that is based at corporate headquarters. Wireless client traffic must terminate at the branch office and access-point survivability is required in the event of a WAN outage. Which access point mode must be configured?

selected?

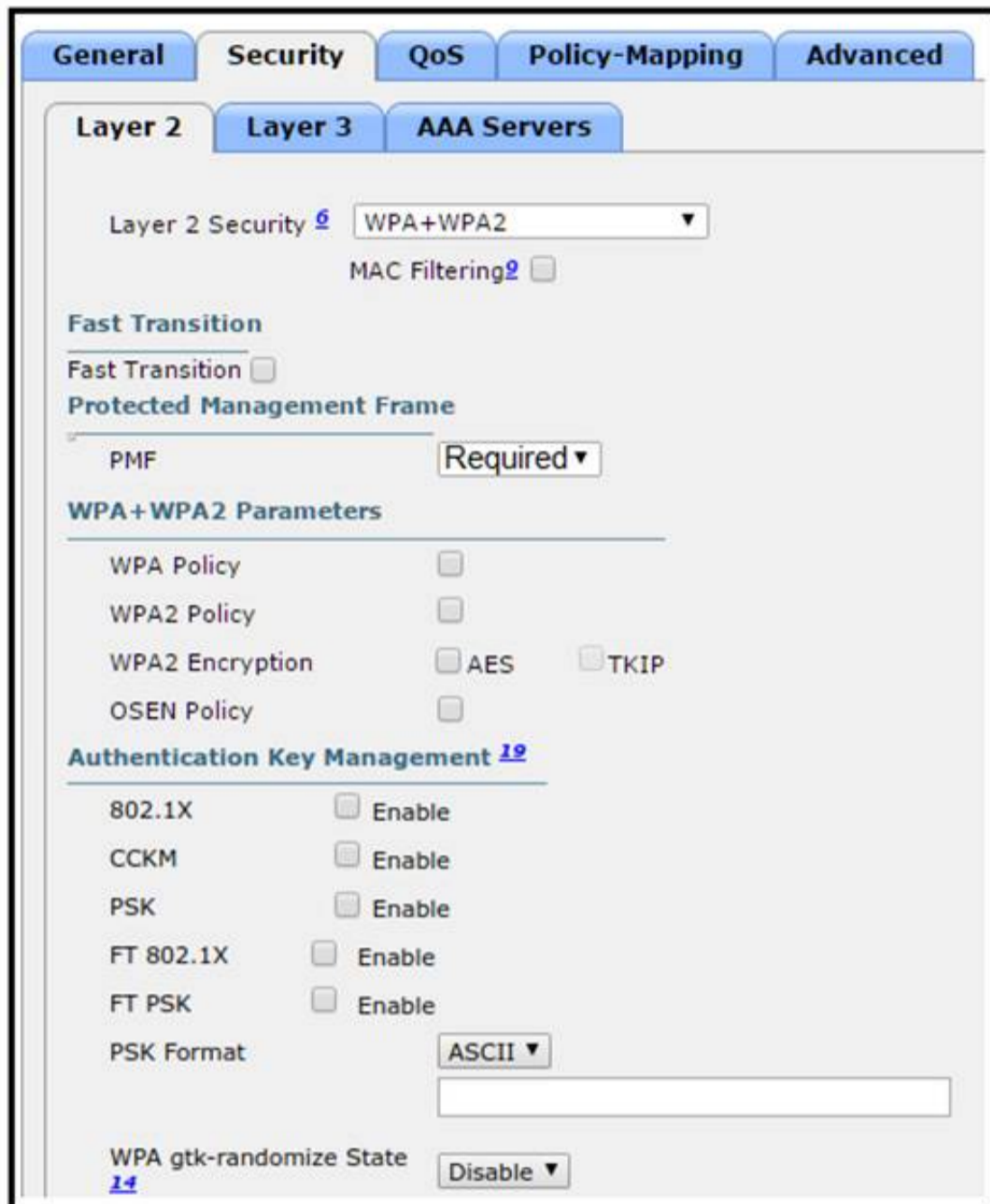
- A. Lightweight with local switching disabled
- B. Local with AP fallback enabled
- C. OfficeExtend with high availability disabled
- D. FlexConnect with local switching enabled

Answer: C

NEW QUESTION 519

- (Topic 4)

Refer to the exhibit.



The network engineer is configuring a new WLAN and is told to use a setup password for authentication instead of the RADIUS servers. Which additional set of tasks must the engineer perform to complete the configuration?

- A. Disable PMF Enable PSK Enable 802.1x
- B. Select WPA Policy Enable CCKM Enable PSK
- C. Select WPA Policy Select WPA2 Policy Enable FT PSK
- D. Select WPA2 Policy Disable PMF Enable PSK

Answer: D

NEW QUESTION 520

- (Topic 4)

What differentiates the Cisco OfficeExtend AP mode from FlexConnect AP mode?

- A. FlexConnect allows a personal SSID to be configured on the AP, and personal SSIDs are not supported with OfficeExtend.
- B. OfficeExtend does not support DTLS tunneling of traffic to the WLC, and FlexConnect tunnels traffic to the WLC with DTLS.
- C. OfficeExtend tunnels all traffic through the WLC, and FlexConnect terminates client traffic at the AP switch port.
- D. FlexConnect must be deployed behind a router that NATs the client traffic, and OfficeExtend uses public IP sources.

Answer: C

NEW QUESTION 524

- (Topic 4)

A network engineer must configure an access list on a new Cisco IOS router. The access list must deny HTTP traffic to network 10.125.128.32/27 from the 192.168.240.0/20 network, but it must allow the 192.168.240.0/20 network to reach the rest of the 10.0.0.0/8 network. Which configuration must the engineer apply?

A)

```
ip access-list extended deny_outbound
10 deny tcp 10.125.128.32 255.255.255.224 192.168.240.0 255.255.240.0 eq 443
20 deny tcp 192.168.240.0 255.255.240.0 10.125.128.32 255.255.255.224 eq 443
30 permit ip 192.168.240.0 255.255.240.0 10.0.0.0 255.0.0.0
```

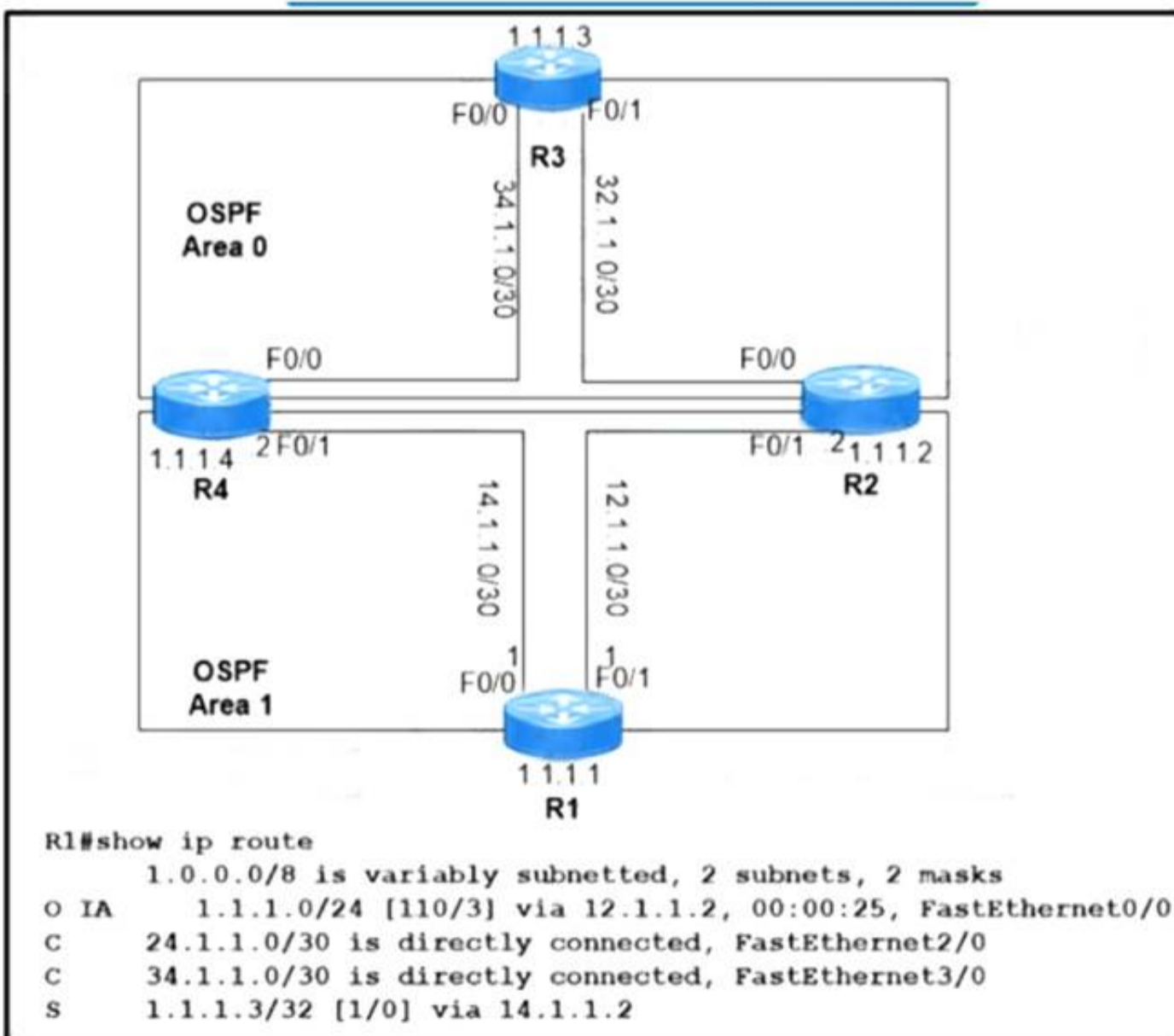
- B)
- ```
ip access-list extended deny_outbound
10 permit ip 192.168.240.0 255.255.240.0 10.0.0.0 255.0.0.0
20 deny tcp 192.168.240.0 255.255.240.0 10.125.128.32 255.255.255.224 eq 443
30 permit ip any any
```
- C)
- ```
ip access-list extended deny_outbound
10 deny tcp 192.168.240.0 0.0.15.255 10.125.128.32 0.0.0.31 eq 80
20 permit ip 192.168.240.0 0.0.15.255 10.0.0.0 0.255.255.255
30 deny ip any any log
```
- D)
- ```
ip access-list extended deny_outbound
10 deny tcp 192.168.240.0 0.0.15.255 any eq 80
20 deny tcp 192.168.240.0 0.0.15.255 10.125.128.32 0.0.0.31 eq 80
30 permit ip 192.168.240.0 0.0.15.255 10.0.0.0 0.255.255.255
```

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

**Answer: C**

#### NEW QUESTION 526

- (Topic 4)  
 Refer to the exhibit.



Which two values does router R1 use to identify valid routes for the R3 loopback address 1.1.1.3/32? (Choose two.)

- A. lowest cost to reach the next hop  
 B. highest metric  
 C. highest administrative distance

- D. lowest metric
- E. lowest administrative distance

**Answer:** DE

#### NEW QUESTION 527

- (Topic 4)

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

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

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

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

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

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

**Answer:** B

#### NEW QUESTION 532

- (Topic 4)

What does a switch do when it receives a frame whose destination MAC address is missing from the MAC address table?

- A. It floods the frame unchanged across all remaining ports in the incoming VLAN.
- B. It appends the table with a static entry for the MAC and shuts down the port.
- C. It updates the CAM table with the destination MAC address of the frame.
- D. It changes the checksum of the frame to a value that indicates an invalid frame.

**Answer:** A

#### NEW QUESTION 536

- (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?

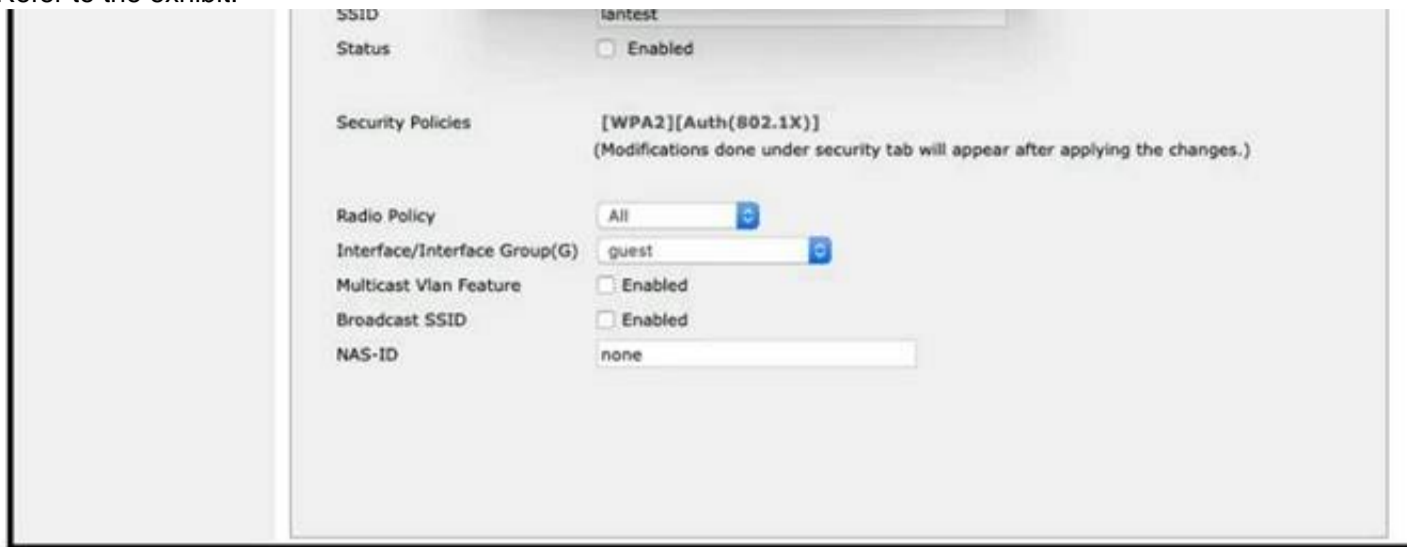
- A. 1
- B. 2
- C. 3
- D. 4

**Answer:** D

#### NEW QUESTION 537

- (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 542

- (Topic 4)

What are two disadvantages of a full-mesh topology? (Choose two.)

- A. It needs a high MTU between sites.
- B. It has a high implementation cost.
- C. It must have point-to-point communication.
- D. It requires complex configuration.
- E. It works only with BGP between sites.

**Answer: BD**

#### NEW QUESTION 547

- (Topic 4)

Which two HTTP methods are suitable for actions performed by REST-based APIs? (Choose two.)

- A. REMOVE
- B. REDIRECT
- C. OPOST
- D. GET
- E. UPOP

**Answer: CD**

#### NEW QUESTION 549

- (Topic 4)

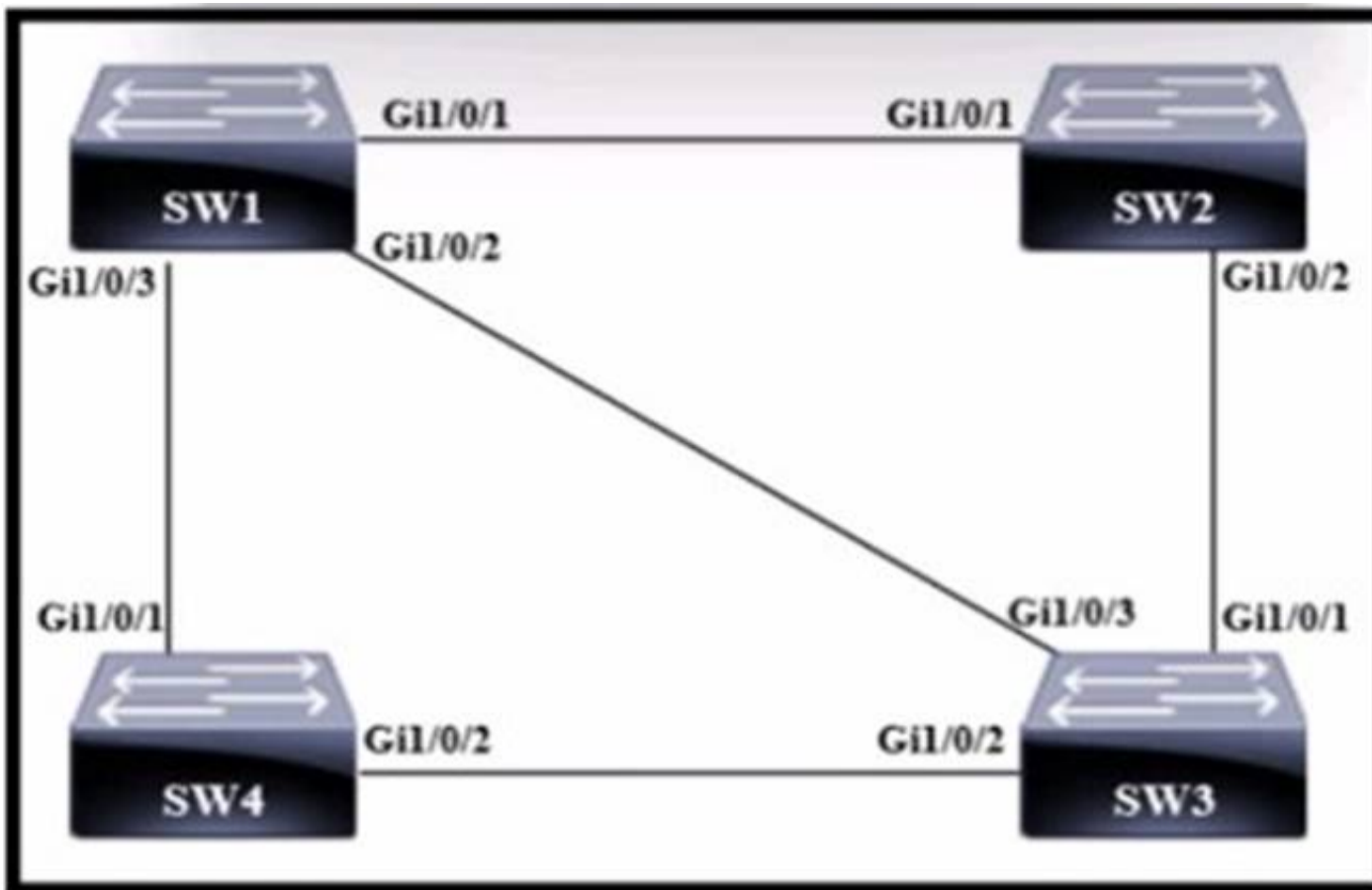
PC1 tries to send traffic to newly installed PC2. The PC2 MAC address is not listed in the MAC address table of the switch, so the switch sends the packet to all ports in the same VLAN. Which switching concept does this describe?

- A. MAC address aging
- B. MAC address table
- C. frame flooding
- D. spanning-tree protocol

**Answer: A**

#### NEW QUESTION 554

- (Topic 4)



A)

SW 1  
 Bridge Priority - 32768  
 mac-address 0d:ca:8e:7f:a0:24

B)

SW 2  
 Bridge Priority - 53248  
 mac-address 02:3e:ee:61:5b:21

C)

SW 4  
 Bridge Priority - 32768  
 mac-address 07:c1:b7:27:dd:73

D)

SW 3  
 Bridge Priority - 53248  
 mac-address 02:aa:03:d3:05:87

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

**Answer:** D

#### NEW QUESTION 556

- (Topic 4)

What is an enhancement implemented in WPA3?

- A. employs PKI and RADIUS to identify access points
- B. applies 802.1x authentication and AES-128 encryption
- C. uses TKIP and per-packet keying
- D. defends against deauthentication and disassociation attacks

**Answer:** D

#### NEW QUESTION 558

- (Topic 4)

Which components are contained within a virtual machine?

- A. physical resources, including the NIC, RAM, disk, and CPU
- B. configuration files backed by physical resources from the Hypervisor
- C. applications running on the Hypervisor
- D. processes running on the Hypervisor and a guest OS

**Answer:** B

**Explanation:**

A virtual machine is a software-based computer that runs on a physical host computer or a remote server. It has its own operating system, applications, and virtual hardware devices that are configured by the user. The virtual hardware devices are backed by the physical resources of the Hypervisor, which is a software layer that manages the virtual machines and allocates the CPU, memory, network, and storage resources to them. The configuration files of a virtual machine contain information such as the name, UUID, BIOS settings, hardware settings, and resource settings of the virtual machine. These files are stored on a datastore, which is a logical container for files and virtual disks<sup>12</sup>. References:

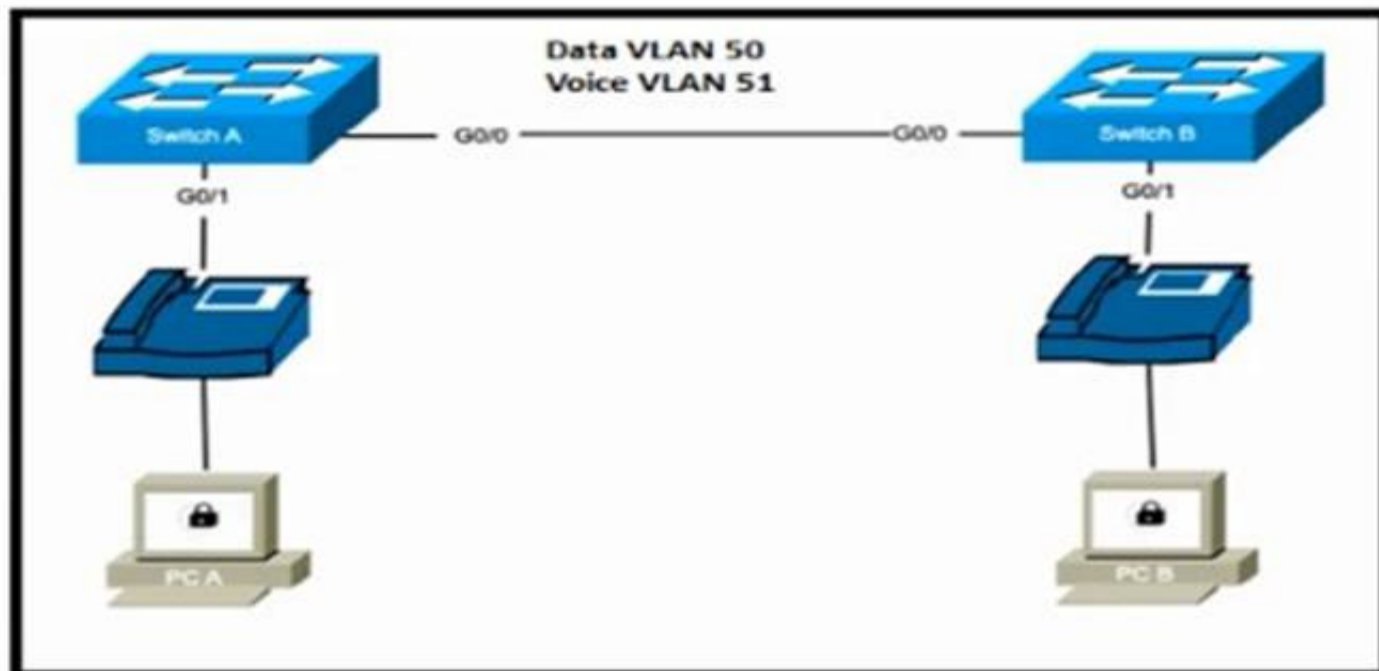
? 1: VMware vSphere 7.0 Documentation - Virtual Machine Configuration Files

? 2: Cisco CCNA Certification Guide - Chapter 10: Virtualization Fundamentals

**NEW QUESTION 559**

- (Topic 3)

Refer to the exhibit.



Switch A is newly configured. All VLANs are present in the VLAN database. The IP phone and PC A on Gi0/1 must be configured for the appropriate VLANs to establish connectivity between the PCs. Which command set fulfills the requirement?

A)

```
SwitchA(config-if)#switchport mode access
SwitchA(config-if)#switchport access vlan 50
SwitchA(config-if)#switchport voice vlan 51
```

B)

```
SwitchA(config-if)#switchport mode access
SwitchA(config-if)#switchport access vlan 50
SwitchA(config-if)#switchport voice vlan untagged
```

C)

```
SwitchA(config-if)#switchport mode trunk
SwitchA(config-if)#switchport trunk allowed vlan add 50, 51
SwitchA(config-if)#switchport voice vlan dot1p
```

D)

```
SwitchA(config-if)#switchport mode trunk
SwitchA(config-if)#switchport trunk allowed vlan 50, 51
SwitchA(config-if)#mls qos trust cos
```

A. Option A

B. Option B

C. Option C

D. Option D

**Answer:** A

**NEW QUESTION 560**

- (Topic 3)

What provides centralized control of authentication and roaming in an enterprise network?

A. a lightweight access point

B. a firewall

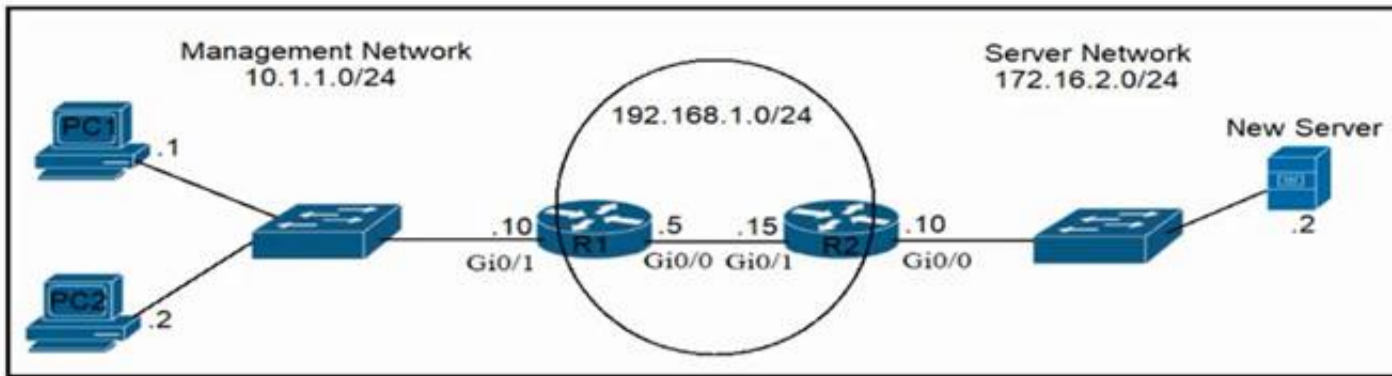
C. a wireless LAN controller

D. a LAN switch

**Answer:** C

**NEW QUESTION 562**

- (Topic 3)  
Refer to the exhibit.



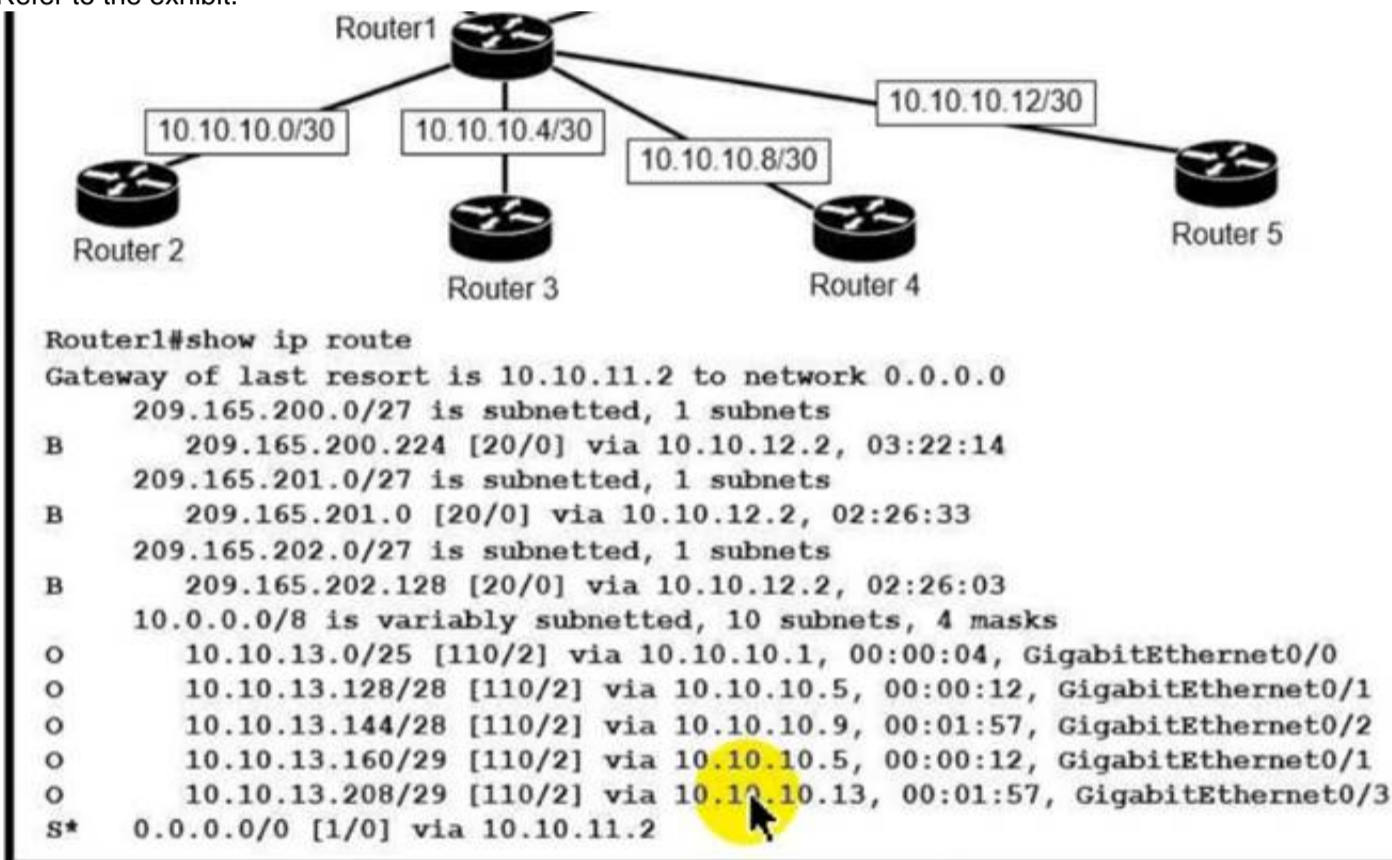
An engineer is updating the R1 configuration to connect a new server to the management network. The PCs on the management network must be blocked from pinging the default gateway of the new server. Which command must be configured on R1 to complete the task?

- A. R1(config)#ip route 172.16.2.2 255.255.255.248 gi0/1
- B. R1(config)#ip route 172.16.2.2 255.255.255.255 gi0/0
- C. R1(config)#ip route 172.16.2.0 255.255.255.0 192.168.1.15
- D. R1(config)#ip route 172.16.2.0 255.255.255.0 192.168.1.5

**Answer: C**

#### NEW QUESTION 565

- (Topic 3)  
Refer to the exhibit.



Which next-hop IP address does Routed use for packets destined to host 10.10.13.158?

- A. 10.10.10.5
- B. 10.10.11.2
- C. 10.10.12.2
- D. 10.10.10.9

**Answer: A**

#### NEW QUESTION 567

- (Topic 3)  
Refer to the exhibit.



Users need to connect to the wireless network with IEEE 802. 11r-compatible devices. The connection must be maintained as users travel between floors or to other areas in the building What must be the configuration of the connection?

- A. Select the WPA Policy option with the CCKM option.
- B. Disable AES encryption.
- C. Enable Fast Transition and select the FT 802.1x option.
- D. Enable Fast Transition and select the FT PSK option.

**Answer: C**

#### NEW QUESTION 571

- (Topic 3)

What is the function of the controller in a software-defined network?

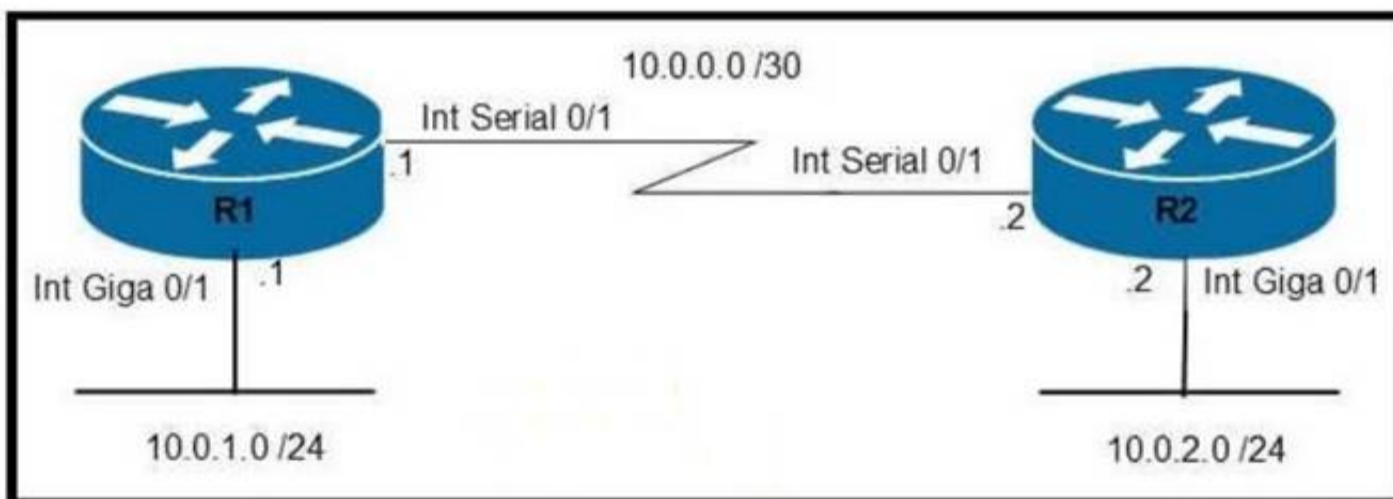
- A. multicast replication at the hardware level
- B. fragmenting and reassembling packets
- C. making routing decisions
- D. forwarding packets

**Answer: D**

#### NEW QUESTION 573

- (Topic 3)

Refer to the exhibit.



Which command configures OSPF on the point-to-point link between routers R1 and R2?

- A. router-id 10.0.0.15
- B. neighbor 10.1.2.0 cost 180
- C. ipospf priority 100
- D. network 10.0.0.0 0.0.0.255 area 0

**Answer: D**

#### NEW QUESTION 574

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