

Exam Questions 200-301

Cisco Certified Network Associate

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NEW QUESTION 1

- (Topic 3)

What is a requirement when configuring or removing LAG on a WLC?

- A. The Incoming and outgoing ports for traffic flow must be specified If LAG Is enabled.
- B. The controller must be rebooted after enabling or reconfiguring LAG.
- C. The management interface must be reassigned if LAG disabled.
- D. Multiple untagged interfaces on the same port must be supported.

Answer: C

NEW QUESTION 2

- (Topic 3)

Which wireless security protocol relies on Perfect Forward Secrecy?

- A. WPA3
- B. WPA
- C. WEP
- D. WPA2

Answer: A

NEW QUESTION 3

- (Topic 3)

Refer to the exhibit.

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

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

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

Answer: C

NEW QUESTION 4

DRAG DROP - (Topic 3)

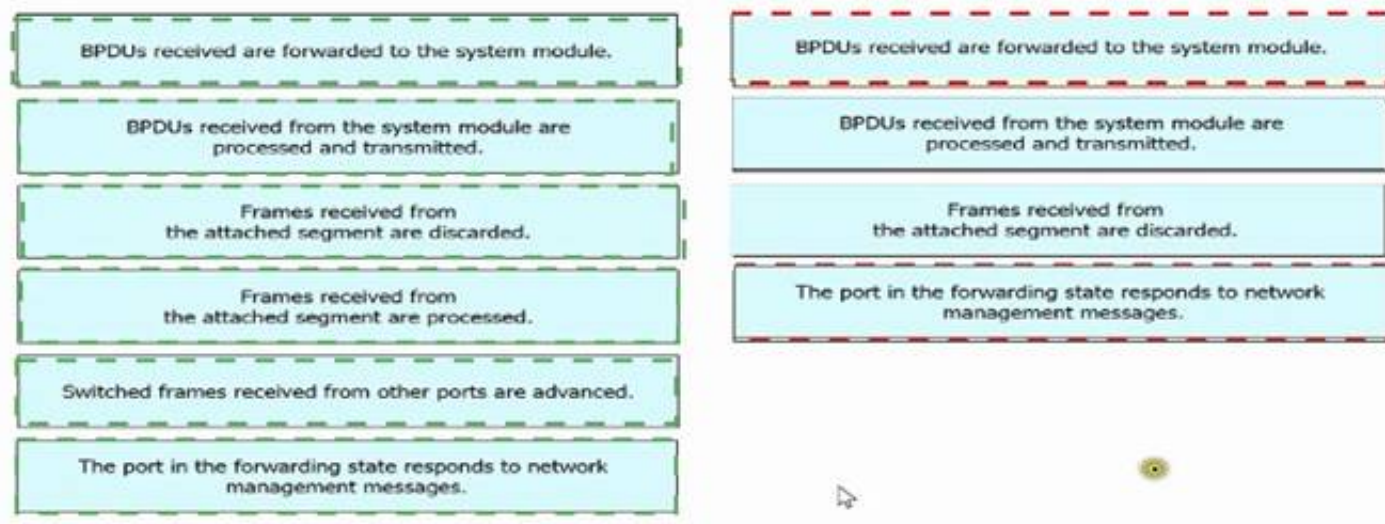
Drag and drop the Rapid PVST+ forwarding slate actions from the loft to the right. Not all actions are used.

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:



NEW QUESTION 5

- (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 6

- (Topic 3)

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

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

Answer: AB

NEW QUESTION 7

DRAG DROP - (Topic 3)

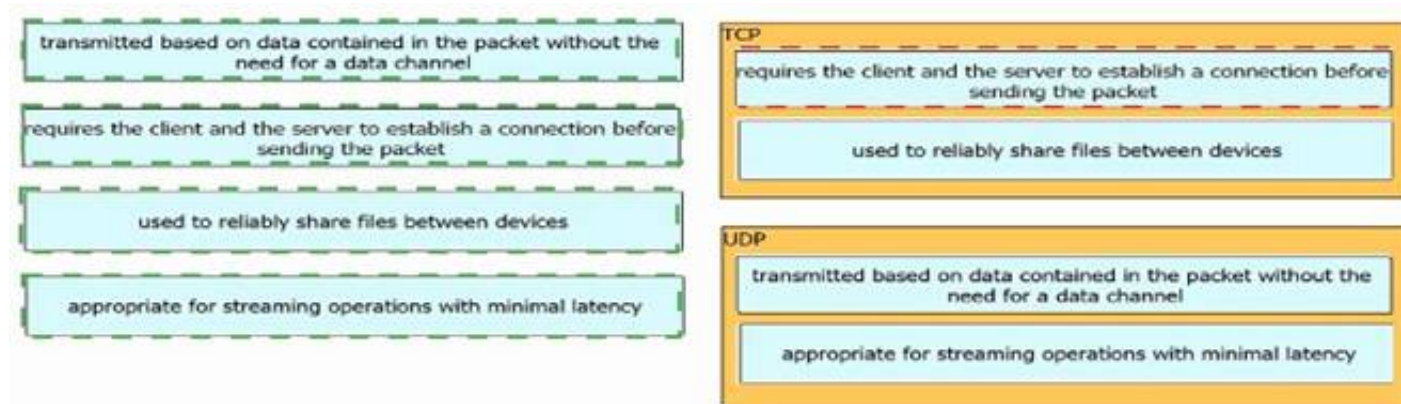
Drag and drop the TCP or UDP details from the left onto their corresponding protocols on the right.

transmitted based on data contained in the packet without the need for a data channel	TCP
requires the client and the server to establish a connection before sending the packet	
used to reliably share files between devices	
appropriate for streaming operations with minimal latency	UDP

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 8

- (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 9

- (Topic 3)

Which interface mode must be configured to connect the lightweight APs in a centralized architecture?

- A. WLAN dynamic
- B. management
- C. trunk
- D. access

Answer: D

NEW QUESTION 10

- (Topic 3)

Refer to the exhibit.

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

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

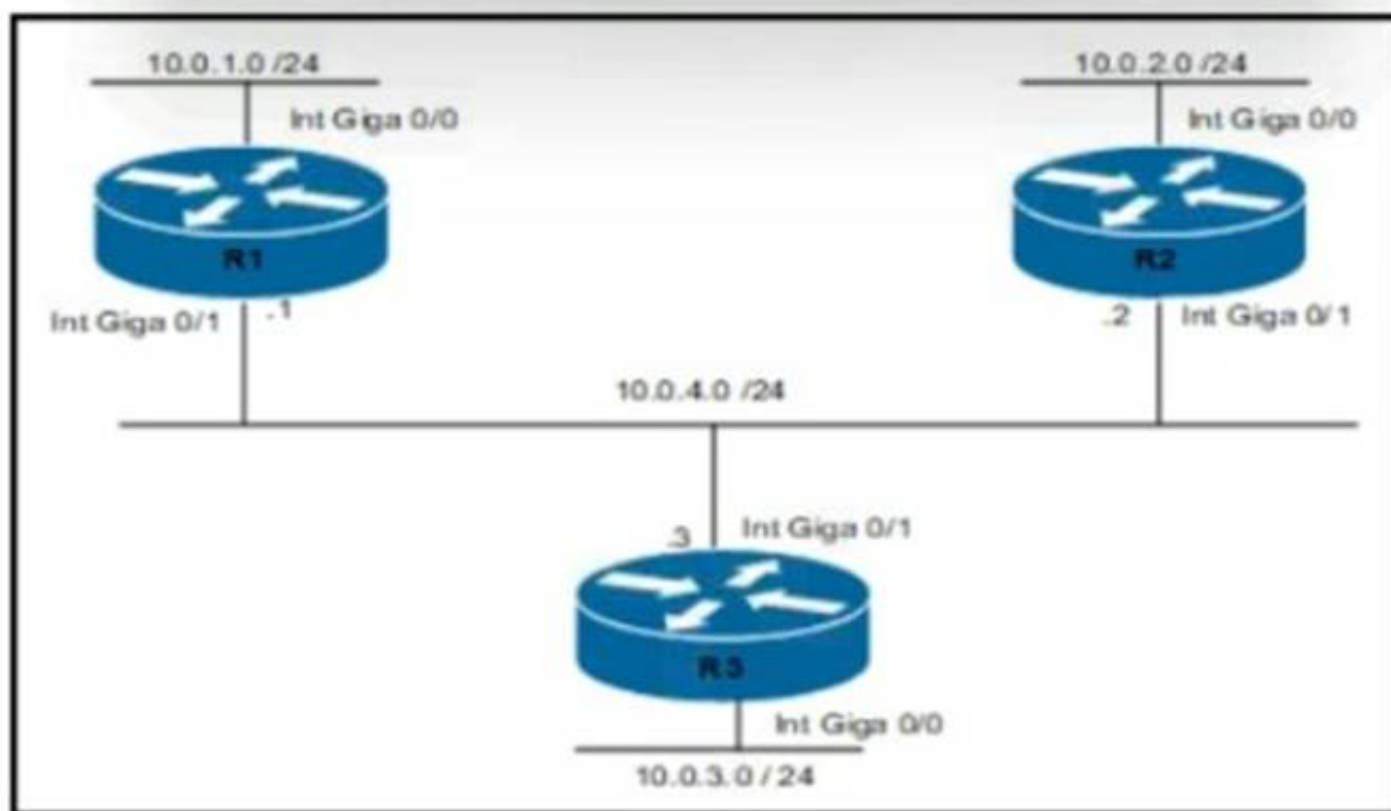
- A. Configure router A to use the same MTU size as router B.
- B. Set the router B OSPF ID to a nonhost address.
- C. Configure a point-to-point link between router A and router B.
- D. Set the router B OSPF ID to the same value as its IP address

Answer: B

NEW QUESTION 10

- (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 12

DRAG DROP - (Topic 3)

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

configure the BPDU guard feature	802.1q double tagging
configure the dynamic ARP inspection feature	ARP spoofing
configure the root guard feature	unwanted superior BPDUs
configure a VLAN access control list	unwanted BPDUs on PortFast-enabled interfaces

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

configure the BPDU guard feature	configure a VLAN access control list
configure the dynamic ARP inspection feature	configure the dynamic ARP inspection feature
configure the root guard feature	configure the root guard feature
configure a VLAN access control list	configure the BPDU guard feature

NEW QUESTION 14

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

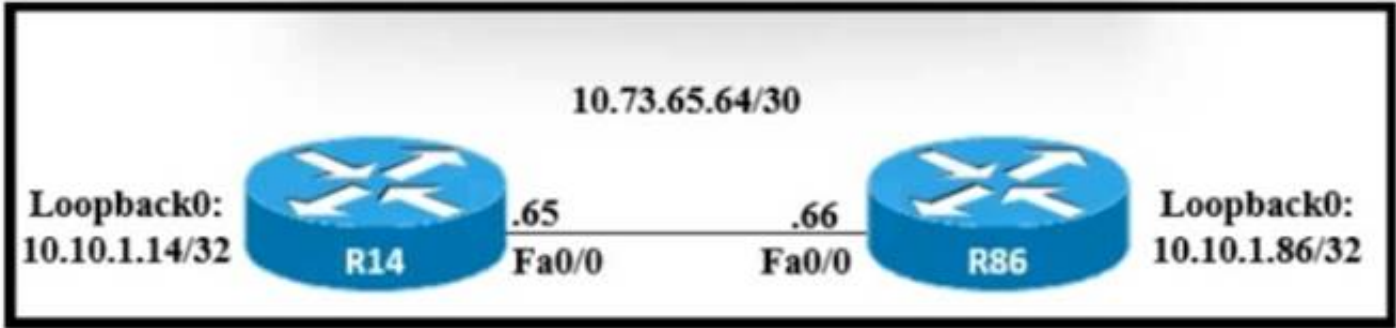
E. interface vlan 155ip address 10.70.155.65 255.255.255.224

Answer: BD

NEW QUESTION 16

- (Topic 3)

Refer to the exhibit.



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

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

Answer: D

NEW QUESTION 19

DRAG DROP - (Topic 3)

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

focused on network

focused on devices

user input is a configuration

user input is a policy

uses allow list security model

uses block list security model

Controller-Based Networking

Traditional Networking

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

focused on network

focused on devices

user input is a configuration

user input is a policy

uses allow list security model

uses block list security model

Controller-Based Networking

focused on network

uses allow list security model

user input is a policy

Traditional Networking

focused on devices

uses block list security model

user input is a configuration

NEW QUESTION 22

DRAG DROP - (Topic 3)

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

allows the user to change to enable mode

limits the user's access permissions

logs session statistics

records user commands

secures access to routers

validates user credentials

Accounting

Authentication

Authorization

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

allows the user to change to enable mode

limits the user's access permissions

logs session statistics

records user commands

secures access to routers

validates user credentials

Accounting

records user commands

logs session statistics

Authentication

validates user credentials

allows the user to change to enable mode

Authorization

limits the user's access permissions

secures access to routers

NEW QUESTION 27

- (Topic 3)
Refer to the exhibit.

Site A

Distance between sites
7KM

Site B

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 255/255, txload 1/255, rxload 1/255

Full Duplex, 10000Mbps, link type is force-up, media type is SFP-SR

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

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

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

Answer: B

NEW QUESTION 29

- (Topic 3)

A Cisco engineer is configuring a factory-default router with these three passwords:

- The user EXEC password for console access is p4ssw0rd1
- The user EXEC password for Telnet access is s3cr3t2
- The password for privileged EXEC mode is priv4t3p4ss

Which command sequence must the engineer configure?

A)

```
enable secret priv4t3p4ss
!
line con 0
password login p4ssw0rd1
!
line vty 0 15
password login s3cr3t2
login
```

B)

```
enable secret privilege 15 priv4t3p4ss
!
line con 0
password p4ssw0rd1
login
!
line vty 0 15
password s3cr3t2
login
```

C)

```
enable secret priv4t3p4ss
!
line con 0
password p4ssw0rd1
login
!
line vty 0 15
password s3cr3t2
login
```

D)

```
enable secret priv4t3p4ss
!
line con 0
```

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

Answer: B

NEW QUESTION 31

- (Topic 3)

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

Which type of IPv6 address must the engineer assign?

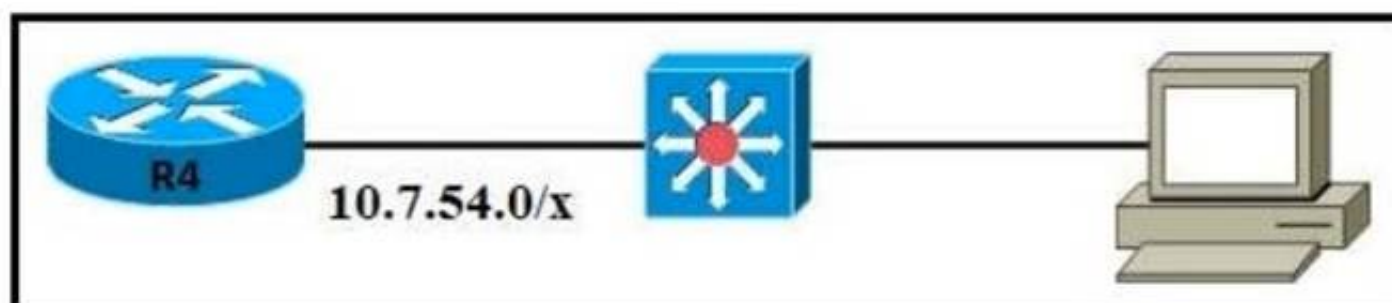
- A. unique local address
 B. link-local address
 C. aggregatable global address
 D. IPv4-compatible IPv6 address

Answer: B

NEW QUESTION 33

- (Topic 3)

Refer to the exhibit.



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

A)

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

B)

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

C)

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

D)

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

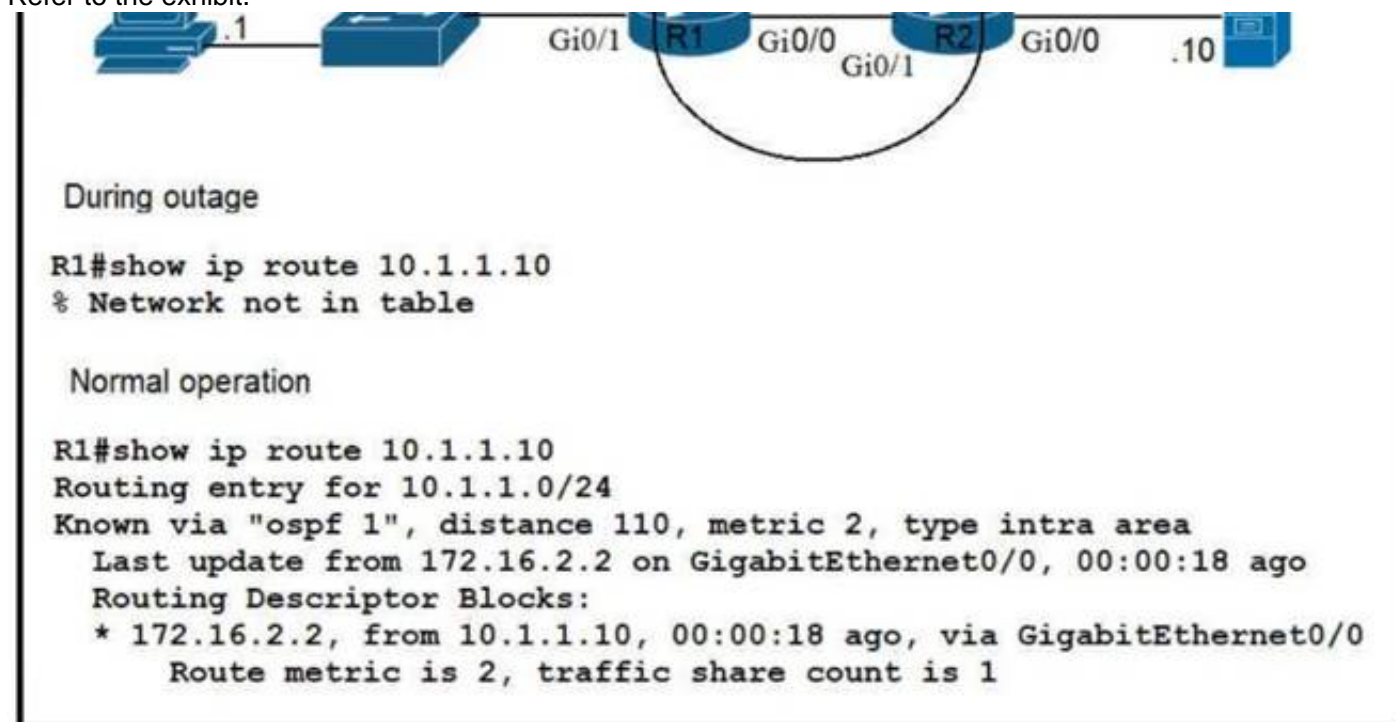
- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

NEW QUESTION 34

- (Topic 3)

Refer to the exhibit.



Which route must be configured on R1 so that OSPF routing is used when OSPF is up. but the server is still reachable when OSPF goes down?

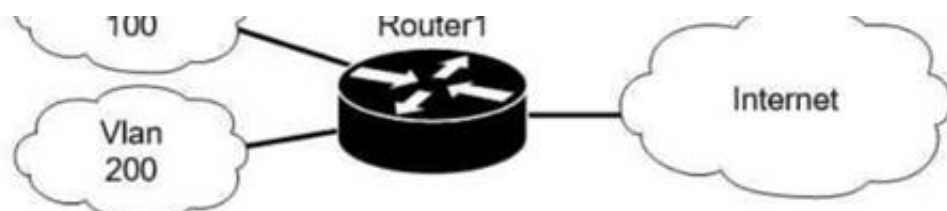
- A. ip route 10.1.1.10 255.255.255.255 172.16.2.2 100
- B. ip route 10.1.1.0 255.255.255.0 gi0/1 125
- C. ip route 10.1.1.0 255.255.255.0 172.16.2.2 100
- D. ip route 10.1.1.10 255.255.255.255 gi0/0 125

Answer: D

NEW QUESTION 37

- (Topic 3)

Refer to the exhibit.



```

Router1(config)#interface GigabitEthernet0/0
Router1(config-if)#ip address 209.165.200.225 255.255.255.224
Router1(config-if)#ip nat outside
Router1(config)#interface GigabitEthernet0/1
Router1(config-if)#ip nat inside
Router1(config)#interface GigabitEthernet0/1.100
Router1(config-if)#encapsulation dot1Q 100
Router1(config-if)#ip address 10.10.10.1 255.255.255.0
Router1(config)#interface GigabitEthernet0/1.200
Router1(config-if)#encapsulation dot1Q 200
Router1(config-if)#ip address 10.10.20.1 255.255.255.0
Router1(config)#ip access-list standard NAT_INSIDE_RANGES
Router1(config-std-nacl)#permit 10.10.10.0 0.0.0.255
Router1(config)#ip nat inside source list NAT_INSIDE_RANGES interface GigabitEthernet0/0 overload
  
```

Users on existing VLAN 100 can reach sites on the Internet. Which action must the administrator take to establish connectivity to the Internet for users in VLAN 200?

- A. Define a NAT pool on the router.
- B. Configure static NAT translations for VLAN 200.
- C. Configure the ip nat outside command on another interface for VLAN 200.
- D. Update the NAT INSIDF RANGFS ACL

Answer: B

NEW QUESTION 42

- (Topic 3)

Refer to the exhibit.

Switch#show etherchannel summary				
[output omitted]				
Group	Port-channel	Protocol	Ports	
-----	-----	-----	-----	-----
10	Po10 (SU)	LACP	Gi0/0 (P)	Gi0/1 (P)
20	Po20 (SU)	LACP	Gi0/2 (P)	Gi0/3 (P)

Which two commands when used together create port channel 10? (Choose two.)

- A. int range g0/0-1channel-group 10 mode active
- B. int range g0/0-1 chanm.l-group 10 mode desirable
- C. int range g0/0-1channel-group 10 mode passive
- D. int range g0/0-1 channel-group 10 mode auto
- E. int range g0/0-1 channel-group 10 mode on

Answer: AC

NEW QUESTION 47

- (Topic 3)

Refer to the exhibit.

EIGRP	10.10.10.0/24[90/1441]	via	F0/10
EIGRP	10.10.10.0/24[90/144]	via	F0/11
EIGRP	10.10.10.0/24[90/1441]	via	F0/12
OSPF	10.10.10.0/24[110/20]	via	F0/13
OSPF	10.10.10.0/24[110/30]	via	F0/14

Packets received by the router from BGP enter via a serial interface at 209.165.201.10. Each route is present within the routing table. Which interface is used to forward traffic with a destination IP of 10.10.10.24?

- A. F0/10
- B. F0/11
- C. F0/12
- D. F0/13

Answer: B

NEW QUESTION 50

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 53

- (Topic 3)

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

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

Answer: D

NEW QUESTION 57

- (Topic 3)

Refer to the exhibit.

```

R1# show ip route | begin gateway
Gateway of last resort is 209.165.200.254 to network 0.0.0.0
S* 0.0.0.0/0 [1/0] via 209.165.200.254, Serial0/0/1
    is directly connected, Serial0/0/1
C   172.16.0.0/16 is variably subnetted, 3 subnets, 2 masks
C   172.16.1.0/24 is directly connected, FastEthernet0/0
L   172.16.1.1/32 is directly connected, FastEthernet0/0
R   172.16.2.0/24 [120/2] via 207.165.200.250, 00:00:25, Serial0/0/0
O   192.168.1.0/24 [110/4437] via 207.165.200.254, 00:00:17, Serial0/0/1
D   192.168.2.0/24 [90/84437] via 207.165.200.254, 00:00:15, Serial0/0/1
207.165.200.0/24 is variably subnetted, 5 subnets, 2 masks
S   207.165.200.244/30 [1/1] via 207.165.200.254, Serial0/0/1
C   207.165.200.248/30 is directly connected, Serial0/0/0
L   207.165.200.249/32 is directly connected, Serial0/0/0
C   207.165.200.252/30 is directly connected, Serial0/0/1
L   207.165.200.253/32 is directly connected, Serial0/0/1

```

Which network prefix was learned via EIGRP?

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

Answer: B

NEW QUESTION 62

- (Topic 3)

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

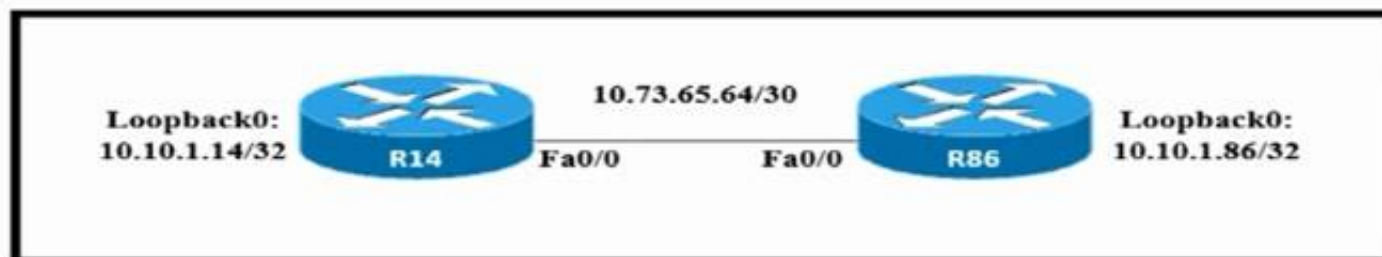
- A. Add or remove an 802.1Q trunking header.
- B. Make a configuration change from an incoming NETCONF RPC.
- C. Run routing protocols.
- D. Match the destination MAC address to the MAC address table.
- E. Reply to an incoming ICMP echo request.

Answer: BD

NEW QUESTION 66

- (Topic 3)

Refer to the exhibit.



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

```

R14#
interface Loopback0
ip ospf 10 area 0

interface FastEthernet0/0
ip address 10.73.65.65 255.255.255.252
ip ospf network broadcast
ip ospf 10 area 0
ip mtu 1500

router ospf 10
ip ospf priority 255
router-id 10.10.1.14

R86#
interface Loopback0
ip ospf 10 area 0

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

B)

```

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

router ospf 10
router-id 10.10.1.14
network 10.10.1.14 0.0.0.0 area 0
network 10.73.65.64 0.0.0.3 area 0

R86#
interface FastEthernet0/0
ip address 10.73.65.66 255.255.255.252
ip ospf network broadcast
ip mtu 1500

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

C)

```
R14#
interface FastEthernet0/0
ip address 10.73.65.65 255.255.255.252
ip ospf network broadcast
ip ospf priority 0
ip mtu 1400

router ospf 10
router-id 10.10.1.14
network 10.10.1.14 0.0.0.0 area 0
network 10.73.65.64 0.0.0.3 area 0
R86#
interface Loopback0
ip address 10.10.1.86 255.255.255.255
```

D)

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

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

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

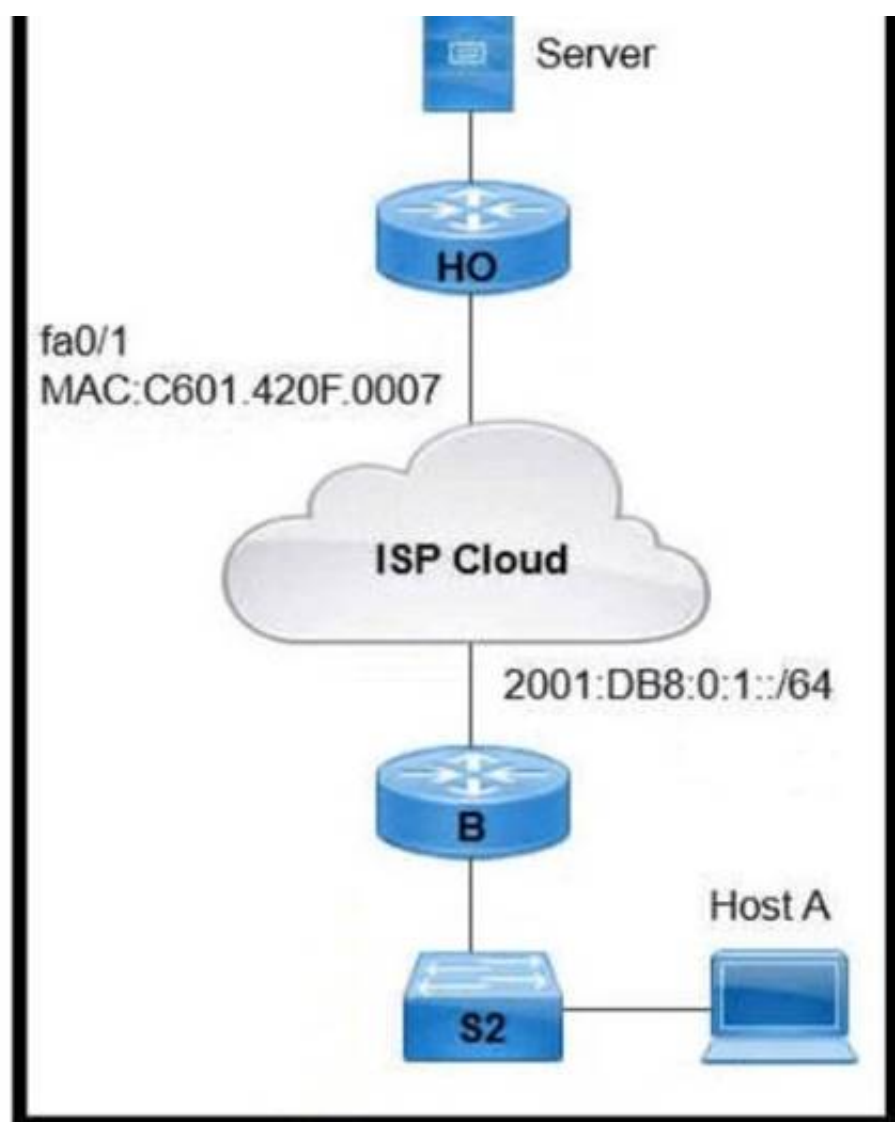
- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: D

NEW QUESTION 69

- (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 73

- (Topic 3)

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

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

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

Answer: B

NEW QUESTION 77

- (Topic 3)

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

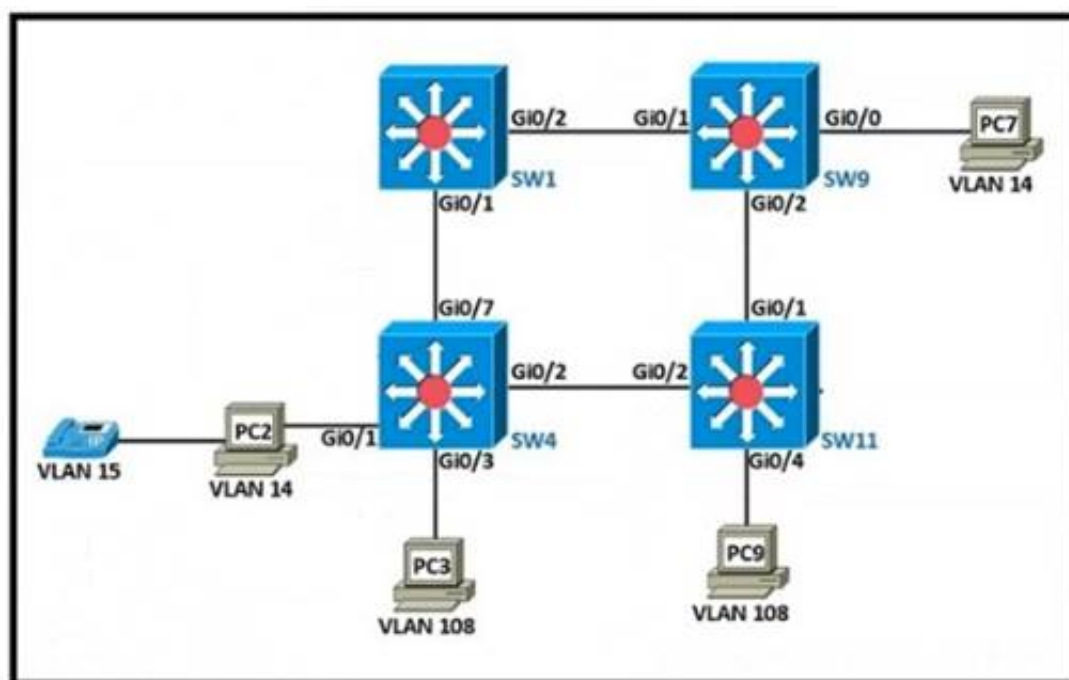
- A. A distributed management plane must be used.
- B. Software upgrades are performed from a central controller
- C. Complexity increases when new device configurations are added
- D. Custom applications are needed to configure network devices

Answer: B

NEW QUESTION 80

- (Topic 3)

Refer to the exhibit.



The following must be considered:

- SW1 is fully configured for all traffic
- The SW4 and SW9 links to SW1 have been configured
- The SW4 interface Gi0/1 and Gi0/0 on SW9 have been configured
- The remaining switches have had all VLANs added to their VLAN database

Which configuration establishes a successful ping from PC2 to PC7 without interruption to traffic flow between other PCs?

A)

```
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 83

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

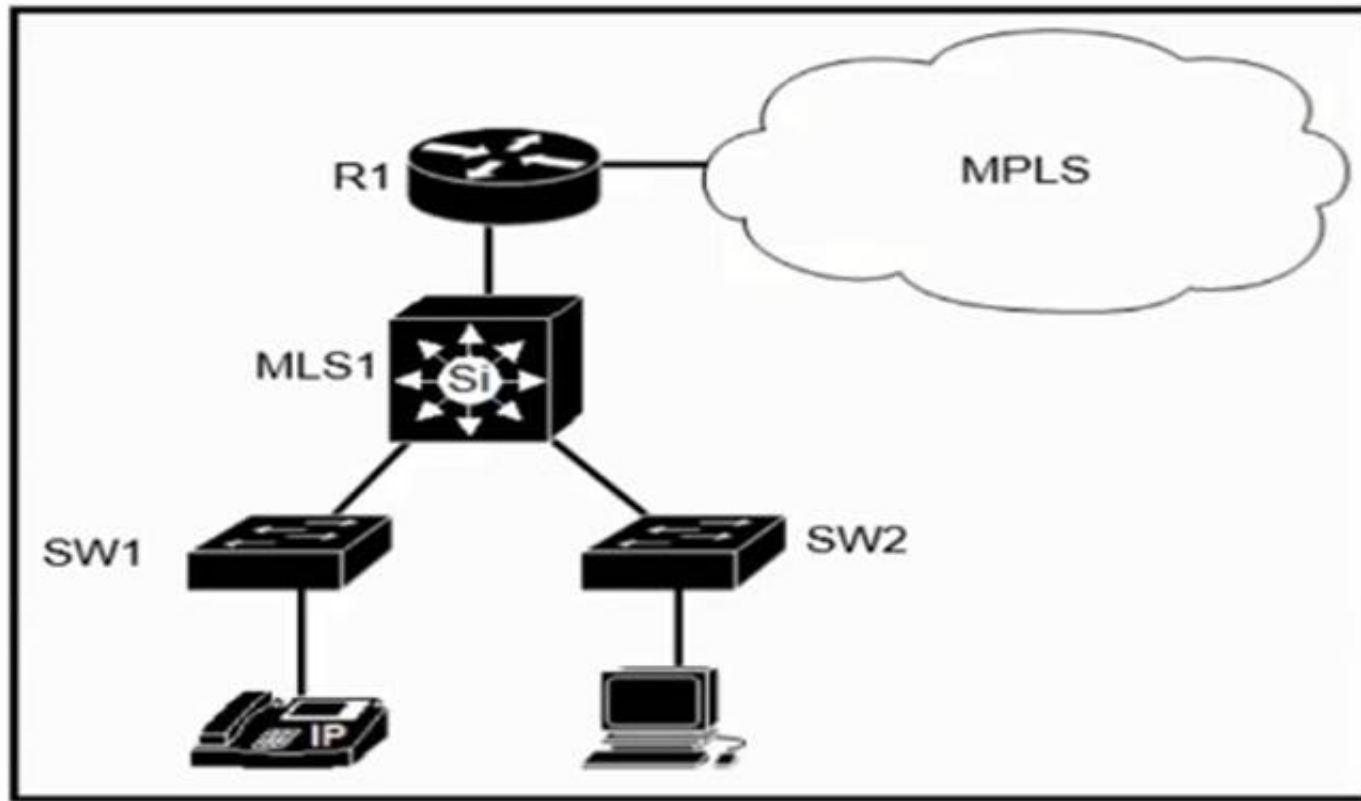
Explanation:

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

NEW QUESTION 85

- (Topic 3)

Refer to the exhibit.



Which plan must be Implemented to ensure optimal QoS marking practices on this network?

- A. As traffic traverses MLS1 remark the traffic, but trust all markings at the access layer.
- B. Trust the IP phone markings on SW1 and mark traffic entering SW2 at SW2.
- C. Remark traffic as it traverses R1 and trust all markings at the access layer.
- D. As traffic enters from the access layer on SW1 and SW2. trust all traffic markings.

Answer: C

NEW QUESTION 89

FILL IN THE BLANK - (Topic 3)

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

- A. Mastered
- B. Not Mastered

Answer: A

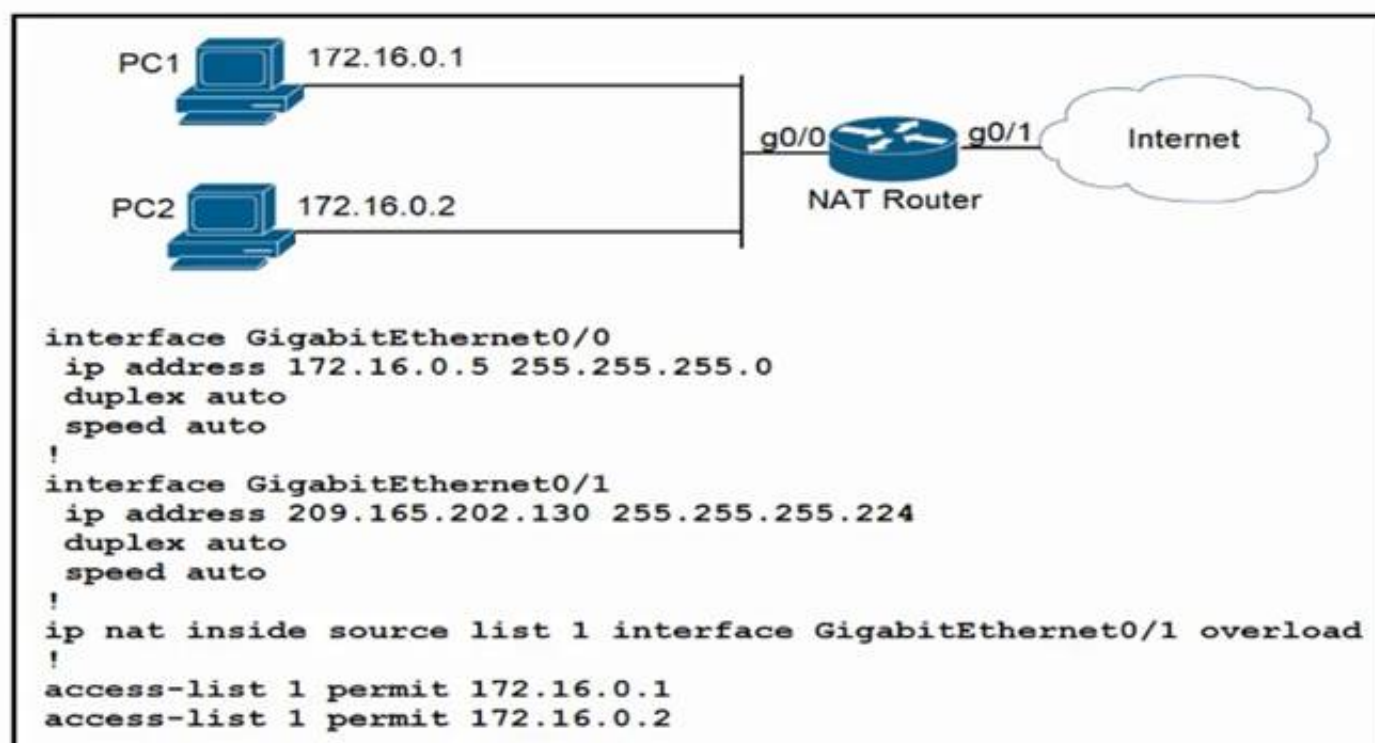
Explanation:

Table Description automatically generated

NEW QUESTION 92

- (Topic 3)

Refer to the exhibit.



How should the configuration be updated to allow PC1 and PC2 access to the Internet?

- A. Modify the configured number of the second access list.
- B. Add either the ip nat {inside|outside} command under both interfaces.
- C. Remove the overload keyword from the ip nat inside source command.
- D. Change the ip nat inside source command to use interface GigabitEthernet0/0.

Answer: B

NEW QUESTION 95

- (Topic 3)

Refer to the exhibit.

```

ip domain-name CNAC.com
!
interface GigabitEthernet0/0/0
 ip address 192.168.1.10 255.255.255.0
 duplex auto
 speed auto
!
line vty 0 15
 login local

R1#show crypto key mypubkey rsa

R1#show ssh
%No SSHv2 server connections running.
%No SSHv1 server connections running.

```

Which two commands must be added to update the configuration of router R1 so that it accepts only encrypted connections? (Choose two)

- A. username CNAC secret R!41!4319115@
- B. ip ssh version 2
- C. line vty 0 4
- D. crypto key generate rsa 1024
- E. transport input ssh

Answer: DE

NEW QUESTION 97

- (Topic 3)

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

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

Answer: B

NEW QUESTION 102

- (Topic 2)

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

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

Answer: C

Explanation:

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

NEW QUESTION 105

- (Topic 2)

Which networking function occurs on the data plane?

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

Answer: A

NEW QUESTION 108

- (Topic 2)

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

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

Answer: AC

NEW QUESTION 110

- (Topic 2)

Refer to the exhibit.

```
R1#show ip route
#output suppressed

Gateway of last resort is 192.168.14.4 to network 0.0.0.0

C    172.16.1.128/25 is directly connected, GigabitEthernet1/1/0
C    192.168.12.0/24 is directly connected, FastEthernet0/0
C    192.168.13.0/24 is directly connected, FastEthernet0/1
C    192.168.14.0/24 is directly connected, FastEthernet1/0
C    172.16.16.1 is directly connected, Loopback1
    192.168.10.0/24 is variably subnetted, 3 subnets, 3 masks
O    192.168.10.0.24 [110/2] via 192.168.14.4, 00:02:01, FastEthernet1/0
O    192.168.10.32/27 [110/11] via 192.168.13.3, 00:00:52, FastEthernet0/1
O    192.168.0.0/16 [110/2] via 192.168.15.5, 00:05:01, FastEthernet1/1
D    192.168.10.1/32 [90/52778] via 192.168.12.2, 00:03:44, FastEthernet0/0
O*E2  0.0.0.0/0 [110/1] via 192.168.14.4, 00:00:10, FastEthernet1/0
```

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

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

Answer: C

NEW QUESTION 111

- (Topic 2)

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

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

Answer: C

NEW QUESTION 113

- (Topic 2)

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

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

Answer: A

NEW QUESTION 116

- (Topic 2)

An engineer observes high usage on the 2.4GHz channels and lower usage on the 5GHz channels. What must be configured to allow clients to preferentially use 5GHz2 access points?

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

Answer: D

NEW QUESTION 118

- (Topic 2)

Which WPA3 enhancement protects against hackers viewing traffic on the Wi-Fi network?

- A. TKiP encryption
- B. AES encryption
- C. scrambled encryption key
- D. SAE encryption

Answer: D

NEW QUESTION 120

- (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 122

- (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 127

- (Topic 2)

What is the same for both copper and fiber interfaces when using SFP modules?

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

Answer: B

NEW QUESTION 129

- (Topic 2)

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

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

Answer: B

Explanation:

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

NEW QUESTION 132

DRAG DROP - (Topic 2)

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

implements changes via an SSH terminal	Cisco DNA Center Device Management
manages device configurations on a per-device basis	
monitors the cloud for software updates	
security is managed near the perimeter of the network with firewalls, VPNs, and IPS	Traditional Device Management
uses CLI templates to apply a consistent configuration to multiple devices at an individual location	
uses NetFlow to analyze potential security threats throughout the network and take appropriate action on that traffic	

- A. Mastered
 B. Not Mastered

Answer: A

Explanation:

implements changes via an SSH terminal	Cisco DNA Center Device Management
manages device configurations on a per-device basis	
monitors the cloud for software updates	
security is managed near the perimeter of the network with firewalls, VPNs, and IPS	Traditional Device Management
uses CLI templates to apply a consistent configuration to multiple devices at an individual location	
uses NetFlow to analyze potential security threats throughout the network and take appropriate action on that traffic	

NEW QUESTION 135

- (Topic 2)

Refer to the exhibit.

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

Channel group 35 neighbors

Partner's information:
```

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

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

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

Answer: D

Explanation:

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

NEW QUESTION 136

- (Topic 2)

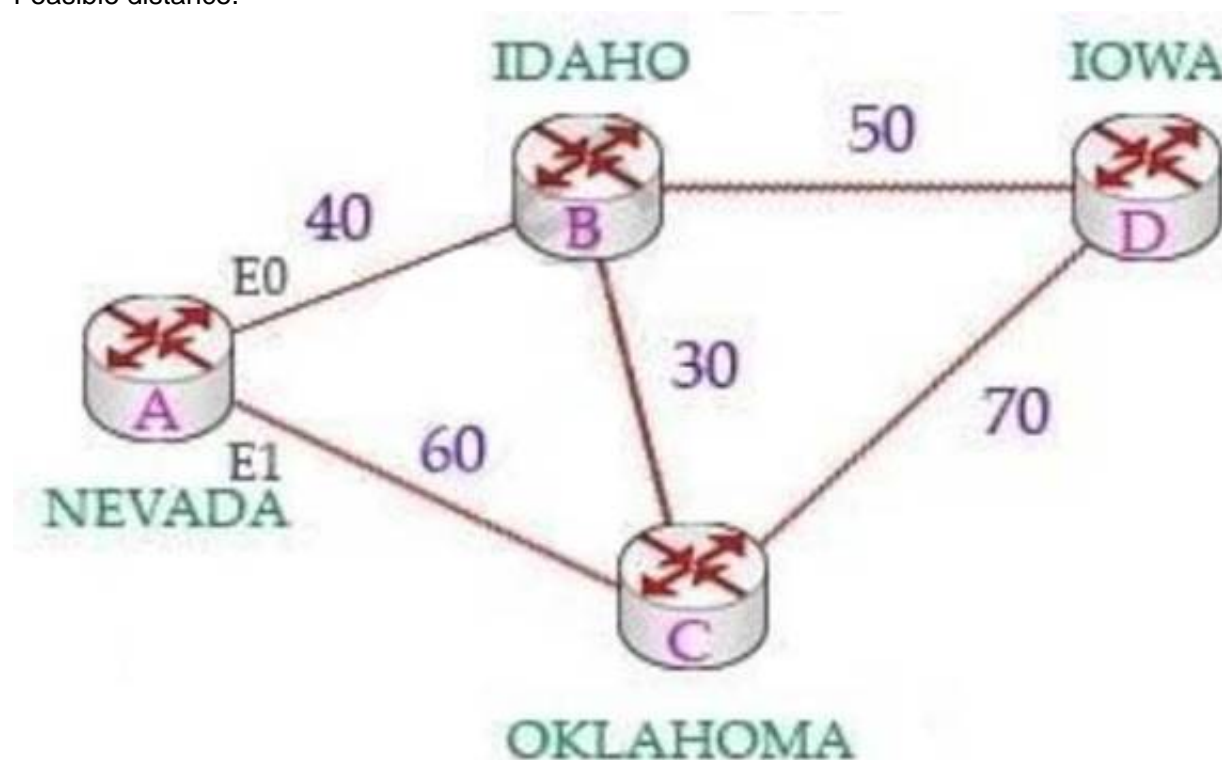
Which two actions influence the EIGRP route selection process? (Choose two)

- 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 137

- (Topic 2)

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

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

Answer: C

NEW QUESTION 138

- (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 139

- (Topic 2)

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

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

Answer: C

NEW QUESTION 143

- (Topic 2)

Refer to the exhibit.

```
Router#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route

Gateway of last resort is 209.165.202.131 to network 0.0.0.0

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

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

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

Answer: D

NEW QUESTION 146

- (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 149

- (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
- D. The two routers share the same IP address, and default gateway traffic is load-balanced between them

Answer: AB

NEW QUESTION 150

- (Topic 2)

An engineer configured an OSPF neighbor as a designated router. Which state verifies the designated router is in the proper mode?

- A. Exchange
- B. 2-way
- C. Full
- D. Init

Answer: C

NEW QUESTION 153

- (Topic 2)

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

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

Answer: B

NEW QUESTION 157

- (Topic 2)

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

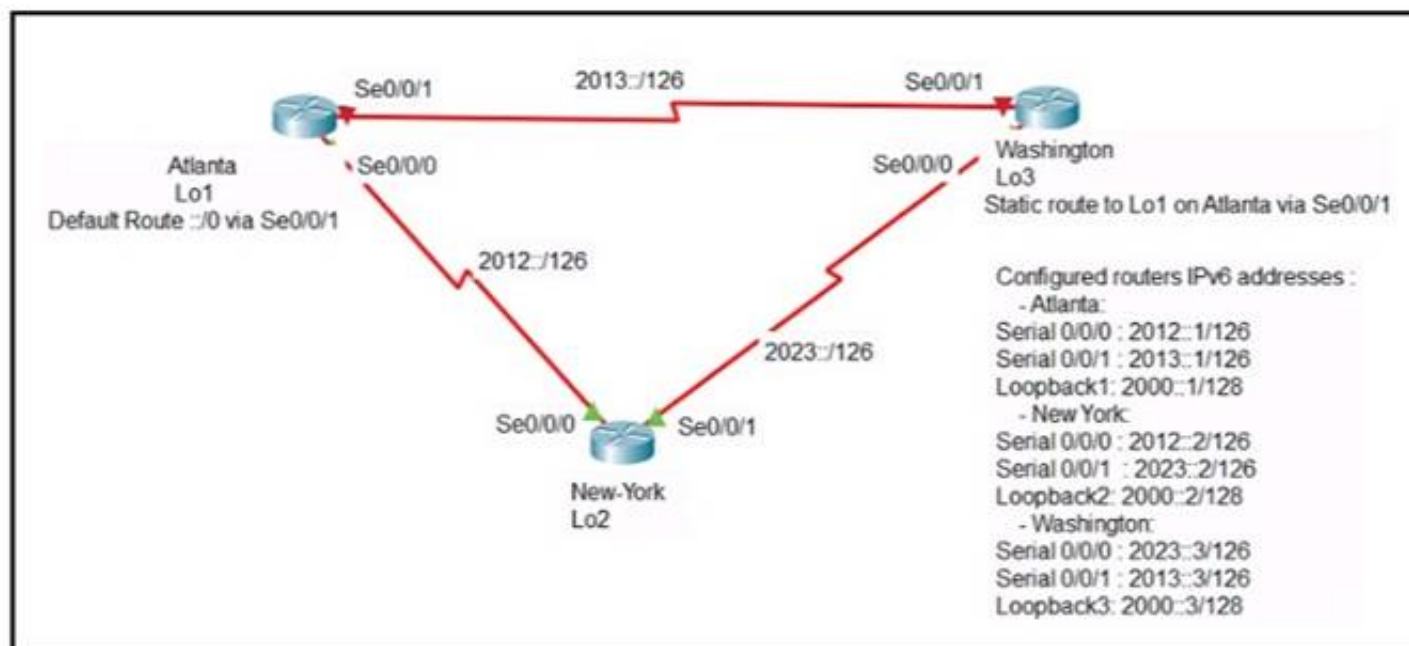
- A. disabling TPC so that access points can negotiate signal levels with their attached wireless devices.
- B. setting the maximum data rate to 54 Mbps on the Cisco Wireless LAN Controller
- C. allocating nonoverlapping channels to access points that are in close physical proximity to one another
-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

Answer: C

NEW QUESTION 161

- (Topic 2)

Refer to Exhibit.



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

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

Answer: AE

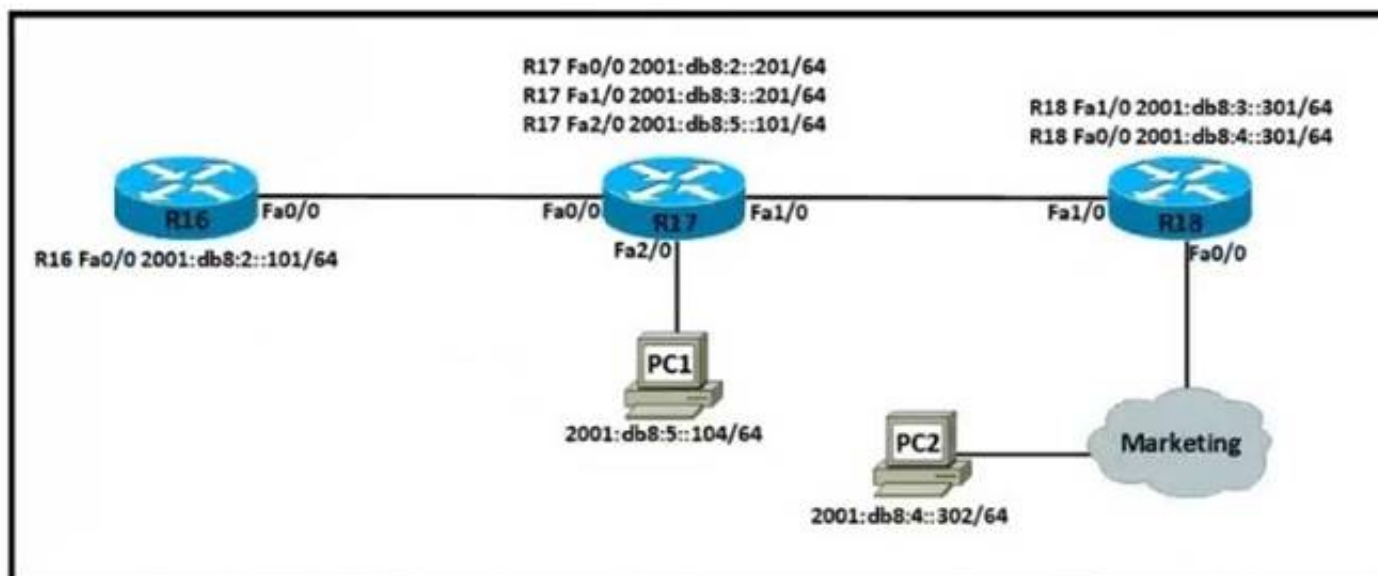
Explanation:

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

NEW QUESTION 166

- (Topic 2)

Refer to the exhibit.



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

A)

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

B)

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

C)


```

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

```

D)

```

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

```

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

Answer: B

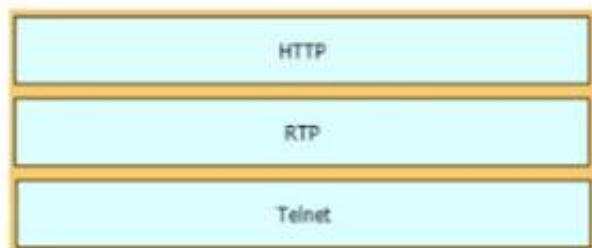
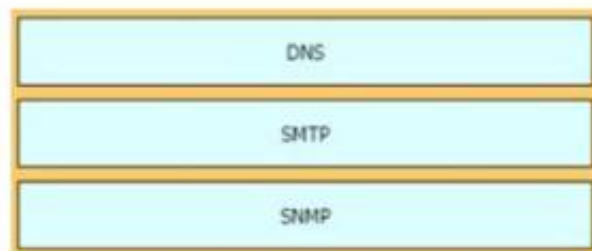
Explanation:

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

NEW QUESTION 169

DRAG DROP - (Topic 2)

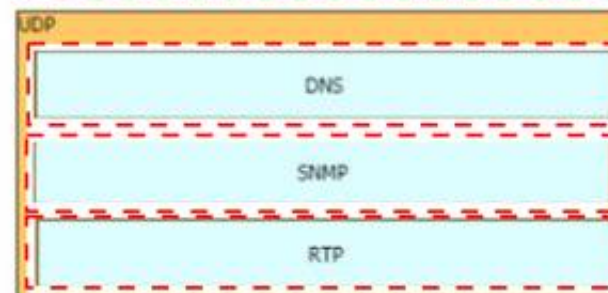
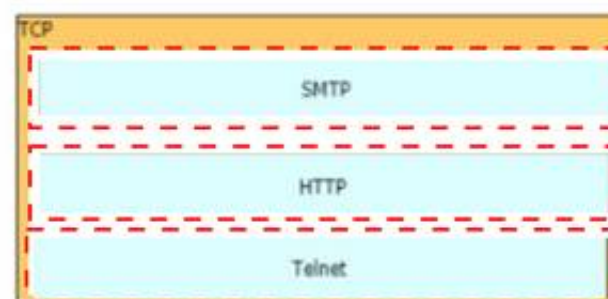
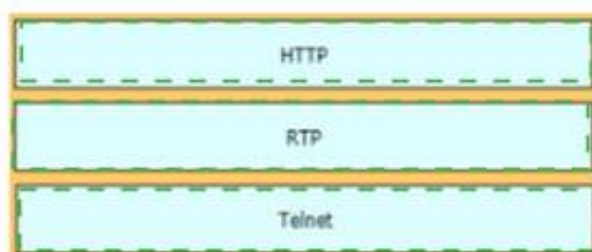
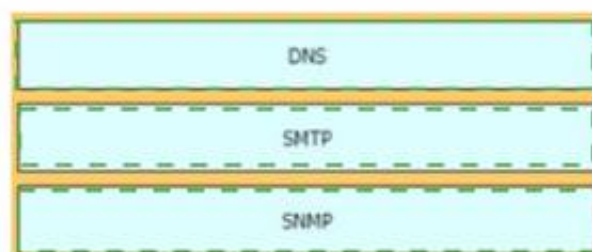
Drag and drop the TCP/IP protocols from the left onto the transmission protocols on the right



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 171

- (Topic 2)

Which function does an SNMP agent perform?

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

Answer: A

NEW QUESTION 176

- (Topic 2)

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

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

Answer: C

Explanation:

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

NEW QUESTION 179

- (Topic 2)

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

- A. It omits supports auto-discovery of network elements in a greenfield deployment.
- B. It modular design allows someone to implement different versions to meet the specific needs of an organization
- C. It abstracts policy from the actual device configuration

D. It does not support high availability of management functions when operating in cluster mode

Answer: C

NEW QUESTION 181

- (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?

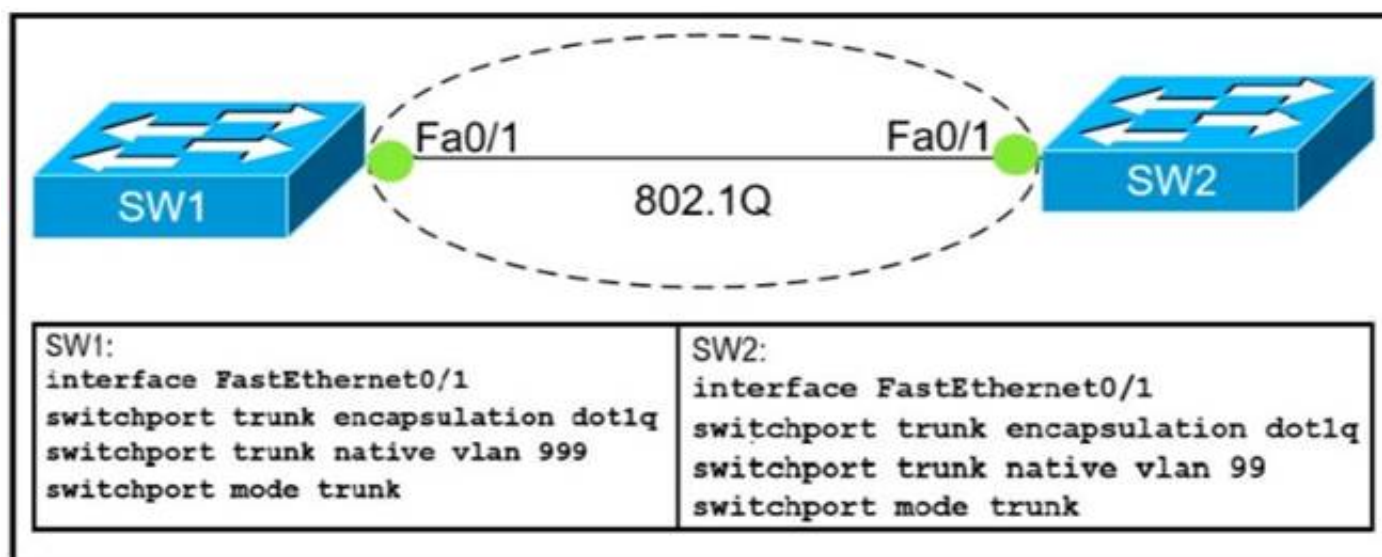
- A. Interface errors are incrementing
- B. An incorrect SFP media type was used at SiteA
- C. High usage is causing high latency
- D. The sites were connected with the wrong cable type

Answer: A

NEW QUESTION 185

- (Topic 2)

Refer to Exhibit.



Which action do the switches take on the trunk link?

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

Answer: B

Explanation:

The trunk still forms with mismatched native VLANs and the traffic can actually flow between mismatched switches. But it is absolutely necessary that the native VLANs on both ends of a trunk link match; otherwise a native VLAN mismatch occurs, causing the two VLANs to effectively merge.

For example with the above configuration, SW1 would send untagged frames for VLAN 999. SW2 receives them but would think they are for VLAN 99 so we can say these two VLANs are merged.

NEW QUESTION 189

- (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 194

- (Topic 2)

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

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

Answer: C

Explanation:

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

NEW QUESTION 199

- (Topic 2)

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

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

Answer: D

Explanation:

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

NEW QUESTION 200

- (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

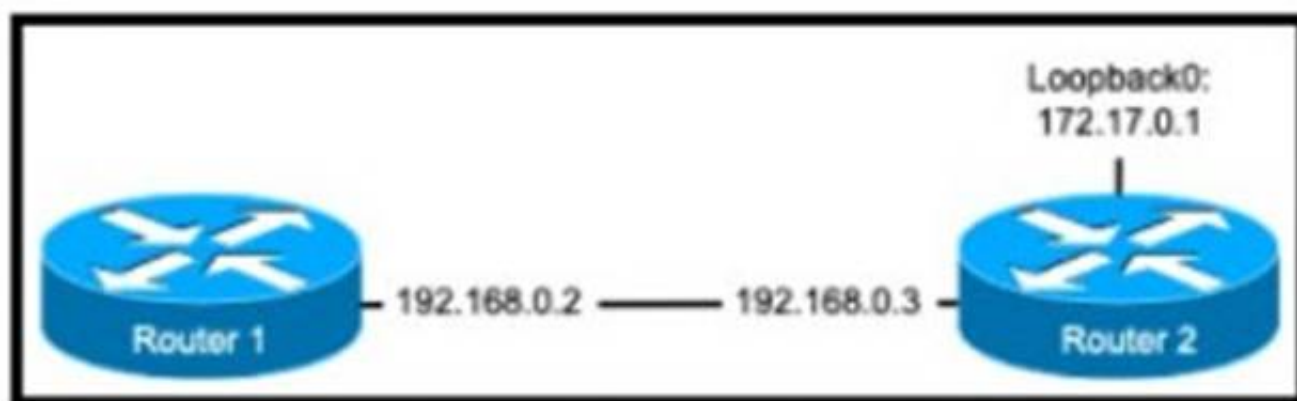
Explanation:

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 205

- (Topic 2)

Refer to the exhibit.



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

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

Answer: B

Explanation:

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

NEW QUESTION 208

- (Topic 2)

Refer to the exhibit.

```

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

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

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

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

Answer: A

NEW QUESTION 211
DRAG DROP - (Topic 2)
Refer to the exhibit.

```
C:\>ipconfig/all

Windows IP Configuration

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

Wireless LAN adapter Local Area Connection* 12:

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

Wireless LAN adapter Wi-Fi:

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

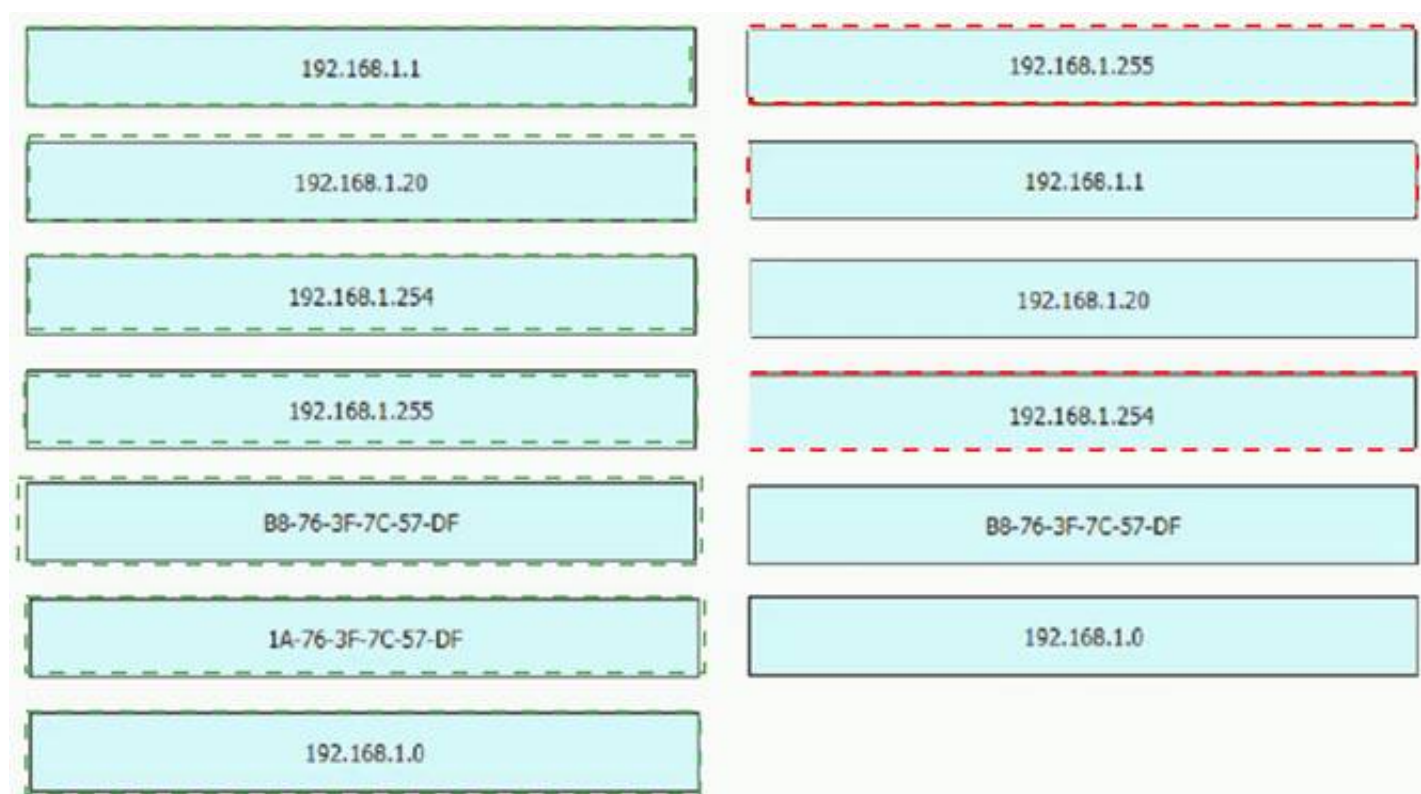
An engineer is required to verify that the network parameters are valid for the users wireless LAN connectivity on a /24 subnet. Drag and drop the values from the left onto the network parameters on the right. Not all values are used.

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

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 212

- (Topic 2)

What is the benefit of configuring PortFast on an interface?

- A. After the cable is connected, the interface uses the fastest speed setting available for that cable type
- B. After the cable is connected, the interface is available faster to send and receive user data
- C. The frames entering the interface are marked with higher priority and then processed faster by a switch.
- D. Real-time voice and video frames entering the interface are processed faster

Answer: B

NEW QUESTION 215

- (Topic 2)

Which action is taken by a switch port enabled for PoE power classification override?

- A. When a powered device begins drawing power from a PoE switch port a syslog message is generated
- B. As power usage on a PoE switch port is checked data flow to the connected device is temporarily paused
- C. If a switch determines that a device is using less than the minimum configured power it assumes the device has failed and disconnects
- D. Should a monitored port exceeds the maximum administrative value for power, the port is shutdown and err-disabled

Answer: D

Explanation:

Reference: https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst6500/ios/12-2SX/configuration/guide/book/power_over_ethernet.pdf

PoE monitoring and policing compares the power consumption on ports with the administrative maximum value (either a configured maximum value or the port's default value). If the power consumption on a monitored port exceeds the administrative maximum value, the following actions occur:– A syslog message is issued.– The monitored port is shut down and error-disabled.– The allocated power is freed.

NEW QUESTION 217

- (Topic 2)

Refer to the exhibit.

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

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

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

Answer: BC

NEW QUESTION 218

- (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 219

- (Topic 2)

What prevents a workstation from receiving a DHCP address?

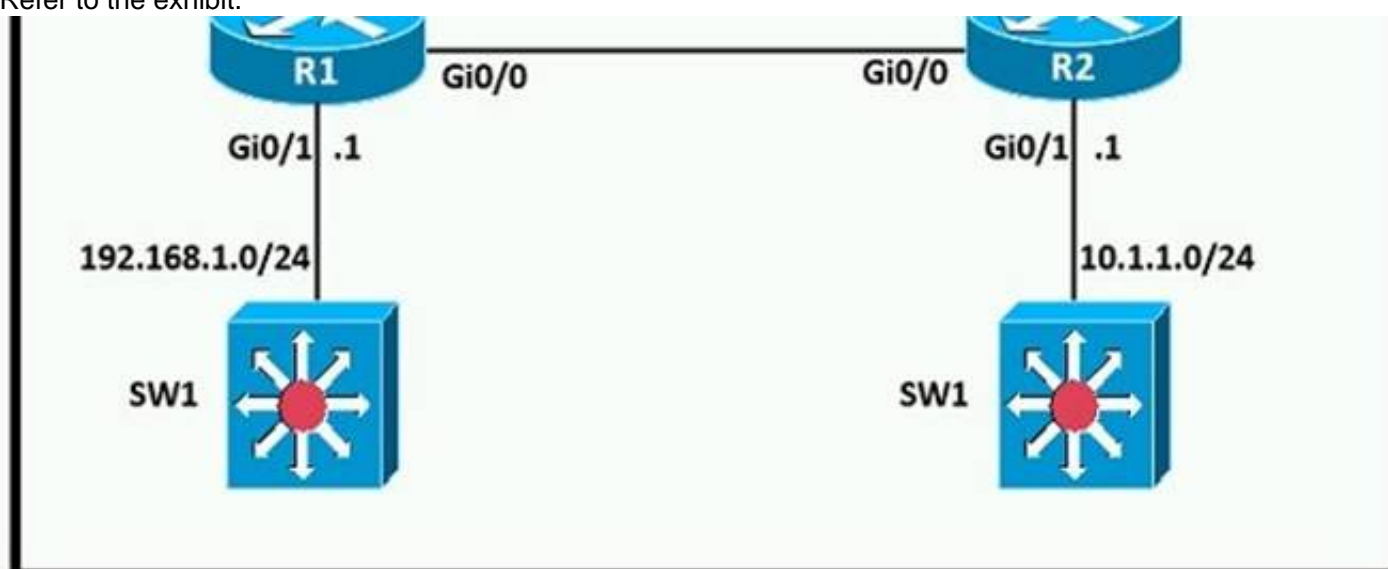
- A. DTP
- B. STP
- C. VTP
- D. 802.10

Answer: B

NEW QUESTION 223

- (Topic 2)

Refer to the exhibit.



A network engineer is in the process of establishing IP connectivity between two sites. Routers R1 and R2 are partially configured with IP addressing. Both routers have the ability to access devices on their respective LANs. Which command set configures the IP connectivity between devices located on both LANs in each site?

- ☐ R1
ip route 192.168.1.0 255.255.255.0 GigabitEthernet0/0
R2
ip route 10.1.1.1 255.255.255.0 GigabitEthernet0/0
- ☐ R1
ip route 0.0.0.0 0.0.0.0 209.165.200.225
R2
ip route 0.0.0.0 0.0.0.0 209.165.200.226
- ☐ R1
ip route 192.168.1.1 255.255.255.0 GigabitEthernet0/1
R2
ip route 10.1.1.1 255.255.255.0 GigabitEthernet0/1
- ☐ R1
ip route 0.0.0.0 0.0.0.0 209.165.200.226
R2
ip route 0.0.0.0 0.0.0.0 209.165.200.225

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

Answer: D

NEW QUESTION 224

DRAG DROP - (Topic 2)

Refer to the exhibit.

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

[root@HostTest ~]# ip addr show eth1
eth1: mtu 1500 qdisc pfifo_fast qlen 1000
link/ether 00:0C:22:83:79:A3 brd ff:ff:ff:ff:ff:ff
inet 192.168.1.200/26 brd 192.168.1.255 scope global eth1
inet6 fe80::20c:29ff:fe89:79b3/64 scope link
valid_lft forever preferred_lft forever
```

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

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

- A. Mastered
B. Not Mastered

Answer: A

Explanation:

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

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

NEW QUESTION 226

- (Topic 2)

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

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

Answer: DE

NEW QUESTION 228

- (Topic 2)

Refer to the exhibit.

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

What is the effect of this configuration?

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

Answer: D

NEW QUESTION 229

- (Topic 2)

What is a characteristic of private IPv4 addressing?

- A. traverse the Internet when an outbound ACL is applied
- B. issued by IANA in conjunction with an autonomous system number
- C. composed of up to 65,536 available addresses
- D. used without tracking or registration

Answer: D

NEW QUESTION 231

- (Topic 2)

What are two characteristics of a public cloud implementation? (Choose two.)

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

Answer: CE

Explanation:

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

NEW QUESTION 236

- (Topic 2)

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

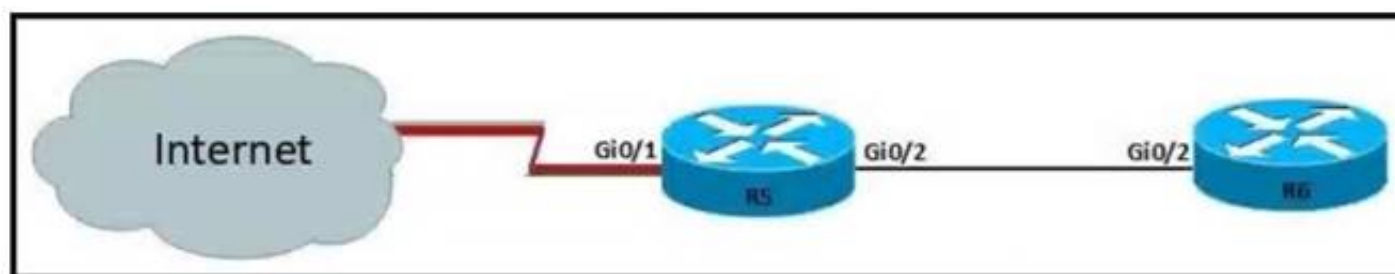
- A. No router ID is set, and the OSPF protocol does not run.
- B. The highest up/up physical interface IP address is selected as the router ID.
- C. The lowest IP address is incremented by 1 and selected as the router ID.
- D. The router ID 0.0.0.0 is selected and placed in the OSPF process.

Answer: B

NEW QUESTION 237

- (Topic 2)

Refer to the exhibit.



For security reasons, automatic neighbor discovery must be disabled on the R5 Gi0/1 interface. These tasks must be completed:

- Disable all neighbor discovery methods on R5 interface Gi0/1.
- Permit neighbor discovery on R5 interface Gi0/2.
- Verify there are no dynamically learned neighbors on R5 interface Gi0/1.
- Display the IP address of R6's interface Gi0/2. Which configuration must be used?

- ☐ R5(config)#int Gi0/1
 R5(config-if)#no cdp run
 R5(config-if)#exit
 R5(config)#lldp run
 R5(config)#cdp enable
 R5#sh cdp neighbor
 R5#sh lldp neighbor
- ☐ R5(config)#int Gi0/1
 R5(config-if)#no cdp enable
 R5(config-if)#exit
 R5(config)#no lldp run
 R5(config)#cdp run
 R5#sh cdp neighbor
 R5#sh lldp neighbor
- ☐ R5(config)#int Gi0/1
 R5(config-if)#no cdp enable
 R5(config-if)#exit
 R5(config)#no lldp run
 R5(config)#cdp run
 R5#sh cdp neighbor detail
 R5#sh lldp neighbor
- ☐ R5(config)#int Gi0/1
 R5(config-if)#no cdp enable
 R5(config-if)#exit
 R5(config)#lldp run
 R5(config)#no cdp run
 R5#sh cdp neighbor detail
 R5#sh lldp neighbor

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

Answer: C

NEW QUESTION 240

- (Topic 2)

What are two descriptions of three-tier network topologies? (Choose two)

- A. The core and distribution layers perform the same functions
- B. The access layer manages routing between devices in different domains
- C. The network core is designed to maintain continuous connectivity when devices fail.
- D. The core layer maintains wired connections for each host
- E. The distribution layer runs Layer 2 and Layer 3 technologies

Answer: CE

NEW QUESTION 244

- (Topic 2)

Refer to the exhibit.



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

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

Answer: C

NEW QUESTION 247

- (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 248

- (Topic 2)

Refer to the exhibit.

```
R1#config t
R1(config)# interface gil/1
R1(config-if)# ip address 192.168.0.1 255.255.255.0

R1(config)# router bgp 65000
R1(config-router)# neighbor 192.168.0.2 remote-as 65001
R1(config-router)# network 10.1.1.0 mask 255.255.255.0

R1(config)# router ospf 1
R1(config)# router-id 1.1.1.1
R1(config)# network 192.168.0.1 0.0.0.0 area 0
R1(config)# network 10.1.1.0 0.0.0.255 area 0

R1(config)# router eigrp 1
R1(config)# eigrp router-id 1.1.1.1
R1(config)# network 10.1.1.0 0.0.0.255
R1(config)# network 192.168.0.1 0.0.0.0

R2#config t
R2(config)# interface gil/1
R2(config-if)# ip address 192.168.0.2 255.255.255.0

R2#config t
R2(config)# router bgp 65001
R2(config-router)# neighbor 192.168.0.1 remote-as 65000

R2(config)# router ospf 1
R2(config)# router-id 2.2.2.2
R2(config)# network 192.168.1.2 0.0.0.0 area 0

R2(config)# router eigrp 1
R2(config)# eigrp router-id 1.1.1.1
R2(config)# network 192.168.0.1 0.0.0.0

R2(config)# ip route 10.1.1.0 255.255.255.0 192.168.0.1
```

Router R2 is configured with multiple routes to reach network 10.1.1.0/24 from router R1. What protocol is chosen by router R2 to reach the destination network 10.1.1.0/24?

- A. eBGP
- B. static
- C. OSPF
- D. EIGRP

Answer: B

NEW QUESTION 253

- (Topic 2)

Which type of traffic is sent with pure IPsec?

- A. broadcast packets from a switch that is attempting to locate a MAC address at one of several remote sites
- B. multicast traffic from a server at one site to hosts at another location
- C. spanning-tree updates between switches that are at two different sites
- D. unicast messages from a host at a remote site to a server at headquarters

Answer: D

Explanation:

“The original poster makes a correct observation that EIGRP does not work in a pure IPSEC environment. IPSEC was designed to process unicast traffic.

NEW QUESTION 257

- (Topic 2)

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

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

Answer: A

NEW QUESTION 258

- (Topic 2)

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

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

Answer: A

NEW QUESTION 262

- (Topic 2)

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

Which configuration, when applied, meets the requirements?

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

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

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

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

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

Answer: C

NEW QUESTION 263

- (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 264

- (Topic 2)

What is the expected outcome when an EUI-64 address is generated?

- A. The seventh bit of the original MAC address of the interface is inverted
- B. The interface ID is configured as a random 64-bit value
- C. The characters FE80 are inserted at the beginning of the MAC address of the interface
- D. The MAC address of the interface is used as the interface ID without modification

Answer: A

NEW QUESTION 268

- (Topic 2)

The SW1 interface g0/1 is in the down/down state. Which two configurations are valid reasons for the interface conditions?(choose two)

- A. There is a duplex mismatch
- B. There is a speed mismatch
- C. There is a protocol mismatch
- D. The interface is shut down
- E. The interface is error-disabled

Answer: BE

NEW QUESTION 270

- (Topic 2)

What Is a syslog facility?

- A. Host that is configured for the system to send log messages
- B. password that authenticates a Network Management System to receive log messages
- C. group of log messages associated with the configured severity level
- D. set of values that represent the processes that can generate a log message

Answer: C

Explanation:

Cisco Community – Difference between logging level and logging facility Post by ahmednaas

“The logging facility command basically tells the syslog server where to put the log message. You configure the syslog server with something like:

local7.debug /var/adm/local7.log

Now, when you use the “logging facility local7” on your device, all messages with severity “debug” or greater should be saved in /var/adm/local7.log.”

Example: on a switch, any process (CDP, SNMP, etc.) can generate a log message. On a syslog server, the logging facility is the place where all received messages with the same priority level are stored.

NEW QUESTION 271

- (Topic 2)

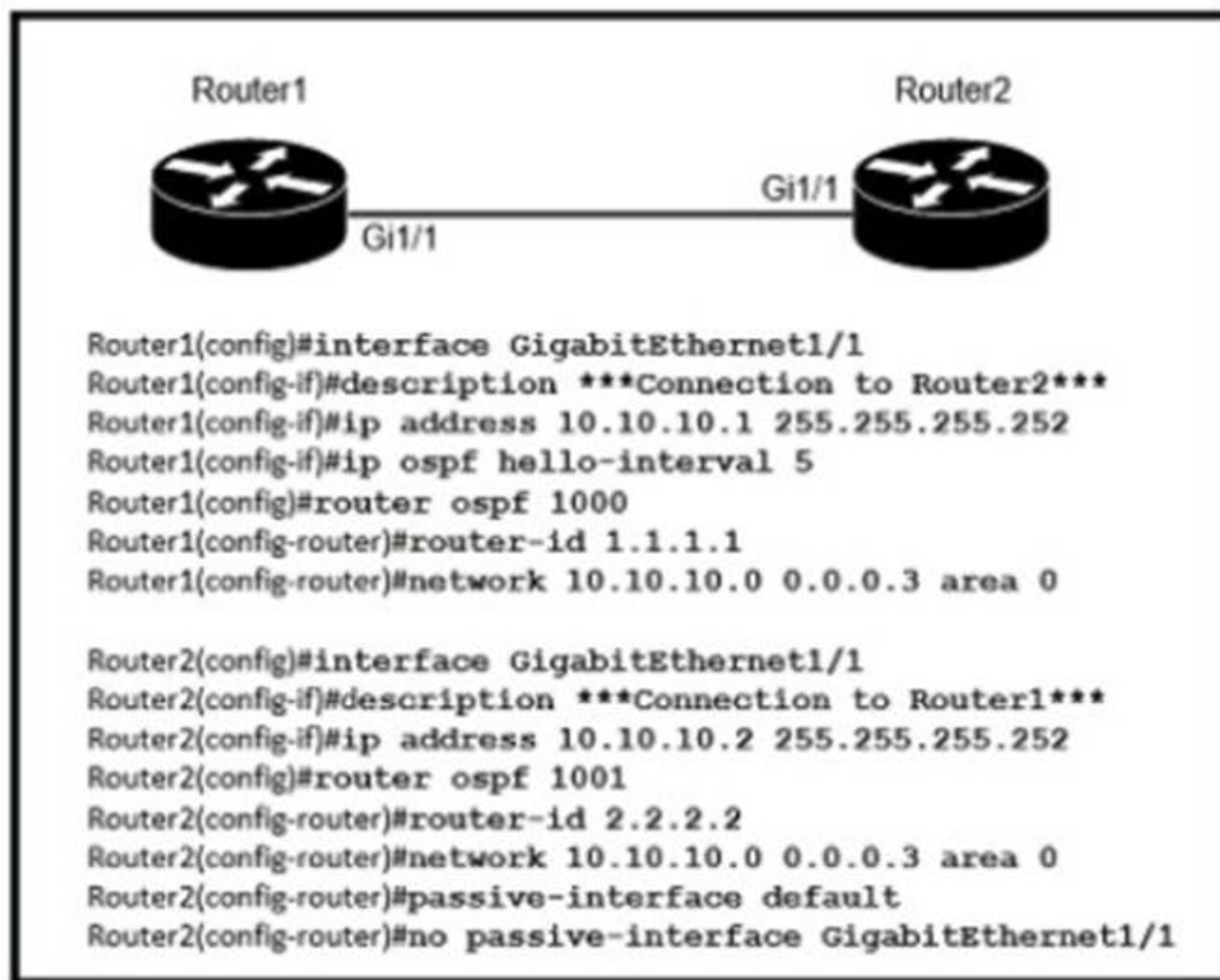
A network engineer must configure the router R1 GigabitEthernet1/1 interface to connect to the router R2 GigabitEthernet1/1 interface. For the configuration to be applied the engineer must compress the address 2001:0db8:0000:0000:0500:000a:400F:583B. Which command must be issued on the interface?

- A. ipv6 address 2001:0db8::5: a: 4F 583B
- B. ipv6 address 2001:db8::500:a:400F:583B
- C. ipv6 address 2001 db8:0::500:a:4F:583B
- D. ipv6 address 2001::db8:0000::500:a:400F:583B

Answer: B

NEW QUESTION 275

- (Topic 2)



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

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

Answer: B

NEW QUESTION 276

- (Topic 2)

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

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

Answer: A

NEW QUESTION 277

- (Topic 2)

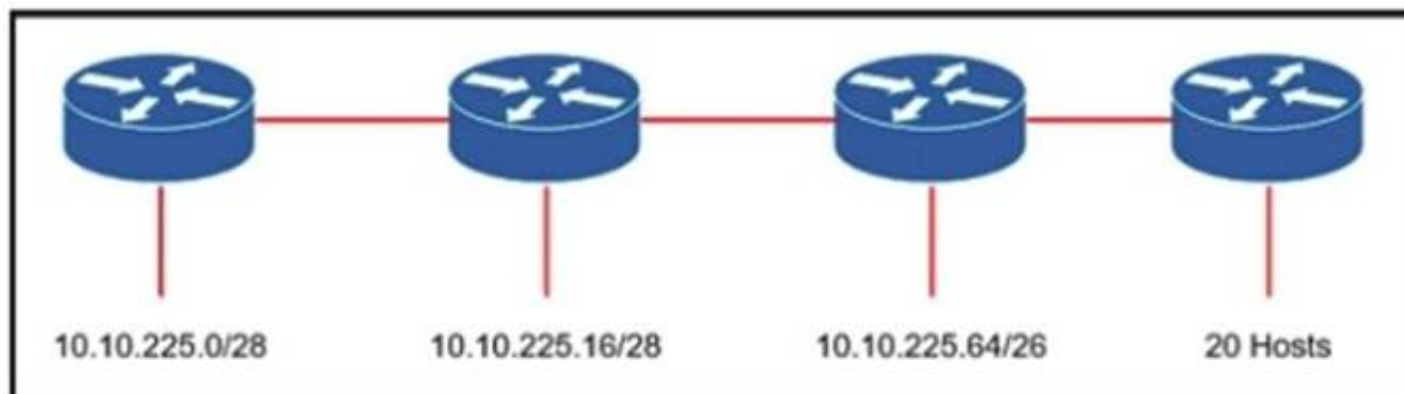
When a WPA2-PSK WLAN is configured in the wireless LAN Controller, what is the minimum number of characters that in ASCII format?

- A. 6
- B. 8
- C. 12
- D. 18

Answer: B

NEW QUESTION 282

- (Topic 2)



Refer to the exhibit. An engineer must add a subnet for a new office that will add 20 users to the network. Which IPv4 network and subnet mask combination does the engineer assign to minimize wasting addresses?

- A. 10.10.225.48 255.255.255.240
- B. 10.10.225.32 255.255.255.240
- C. 10.10.225.48 255.255.255.224
- D. 10.10.225.32 255.255.255.224

Answer: D

NEW QUESTION 286

- (Topic 2)

A network engineer must create a diagram of a multivendor network. Which command must be configured on the Cisco devices so that the topology of the network can be mapped?

- A. Device(Config)#lldp run
- B. Device(Config)#cdp run
- C. Device(Config-if)#cdp enable
- D. Device(Config)#flow-sampler-map topology

Answer: A

NEW QUESTION 291

- (Topic 2)

Refer to the exhibit.



Which configuration issue is preventing the OSPF neighbor relationship from being established between the two routers?

- A. R2 is using the passive-interface default command
- B. R1 has an incorrect network command for interface Gi1/0
- C. R2 should have its network command in area 1
- D. R1 interface Gi1/0 has a larger MTU size

Answer: D

NEW QUESTION 296

- (Topic 2)

How does the dynamically-learned MAC address feature function?

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

Answer: A

NEW QUESTION 298

- (Topic 2)

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

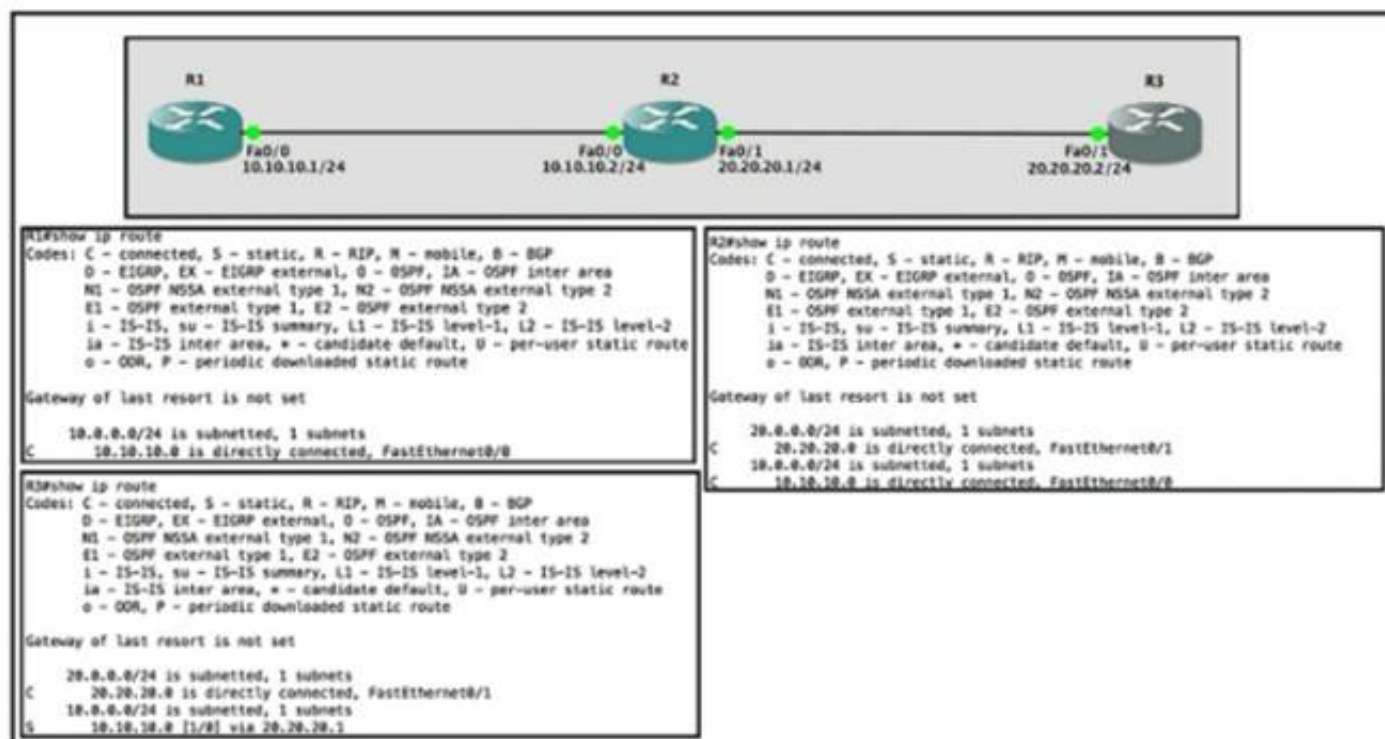
- A. DHCP relay agent
- B. DHCP server
- C. DHCPDISCOVER
- D. DHCPOFFER

Answer: A

NEW QUESTION 299

- (Topic 2)

Refer to the exhibit.



Router R1 Fa0/0 is unable ping router R3 Fa0/1.

Which action must be taken in router R1 to help resolve the configuration issue?

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

Answer: D

NEW QUESTION 304

- (Topic 2)

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

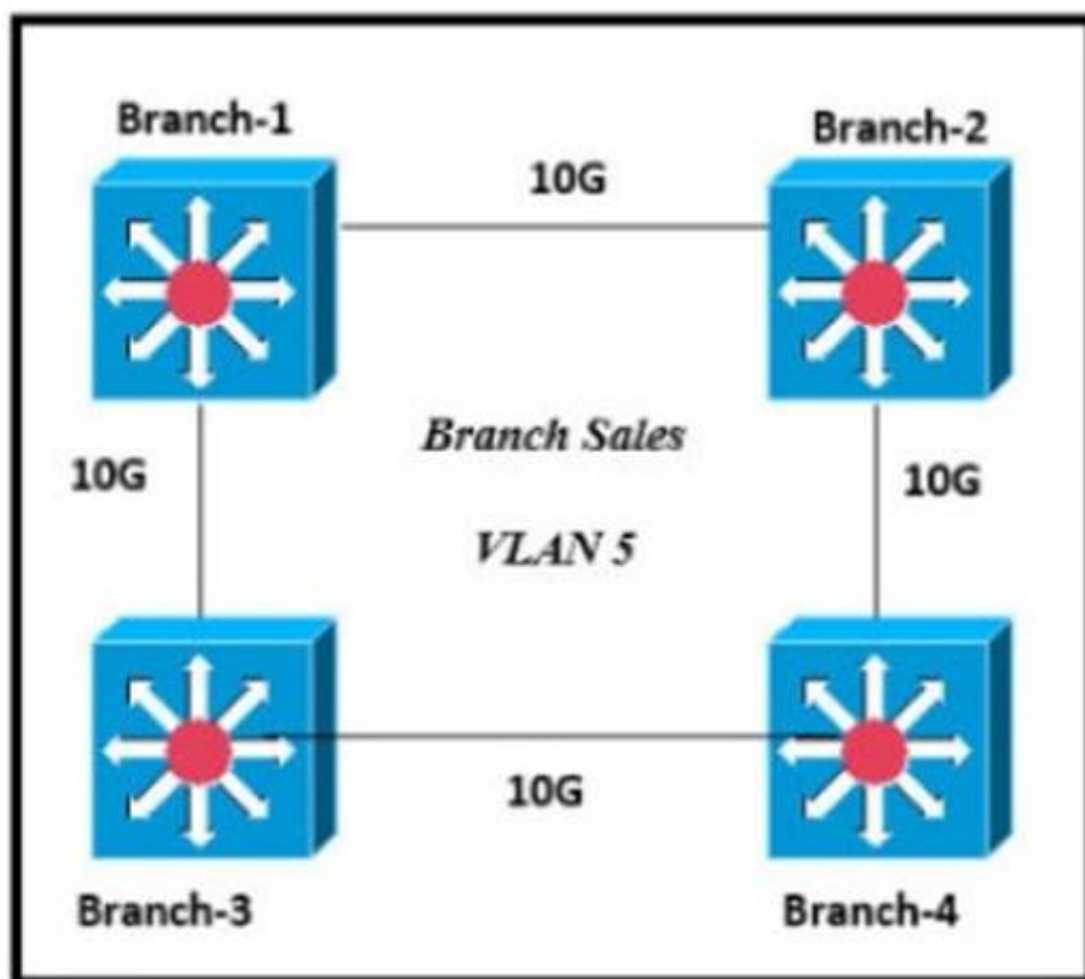
- A. Enable Security Association Teardown Protection and set the SA Query timeout to 10
- B. Enable MAC filtering and set the SA Query timeout to 10
- C. Enable 802.1x Layer 2 security and set the Comeback timer to 10
- D. Enable the Protected Management Frame service and set the Comeback timer to 10

Answer: C

NEW QUESTION 306

- (Topic 2)

Refer to the exhibit.



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

Branch-1 priority 614440

Branch-2: priority 39082416

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

Which switch becomes the permanent root bridge for VLAN 5?

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

Answer: C

Explanation:

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

NEW QUESTION 311

- (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 316

- (Topic 2)

An engineer configures interface Gi1/0 on the company PE router to connect to an ISP Neighbor discovery is disabled

```
interface Gi1/0
description HQ_DC3978-87297
duplex full
speed 100
negotiation auto
lldp transmit
lldp receive
```

Which action is necessary to complete the configuration if the ISP uses third-party network devices?

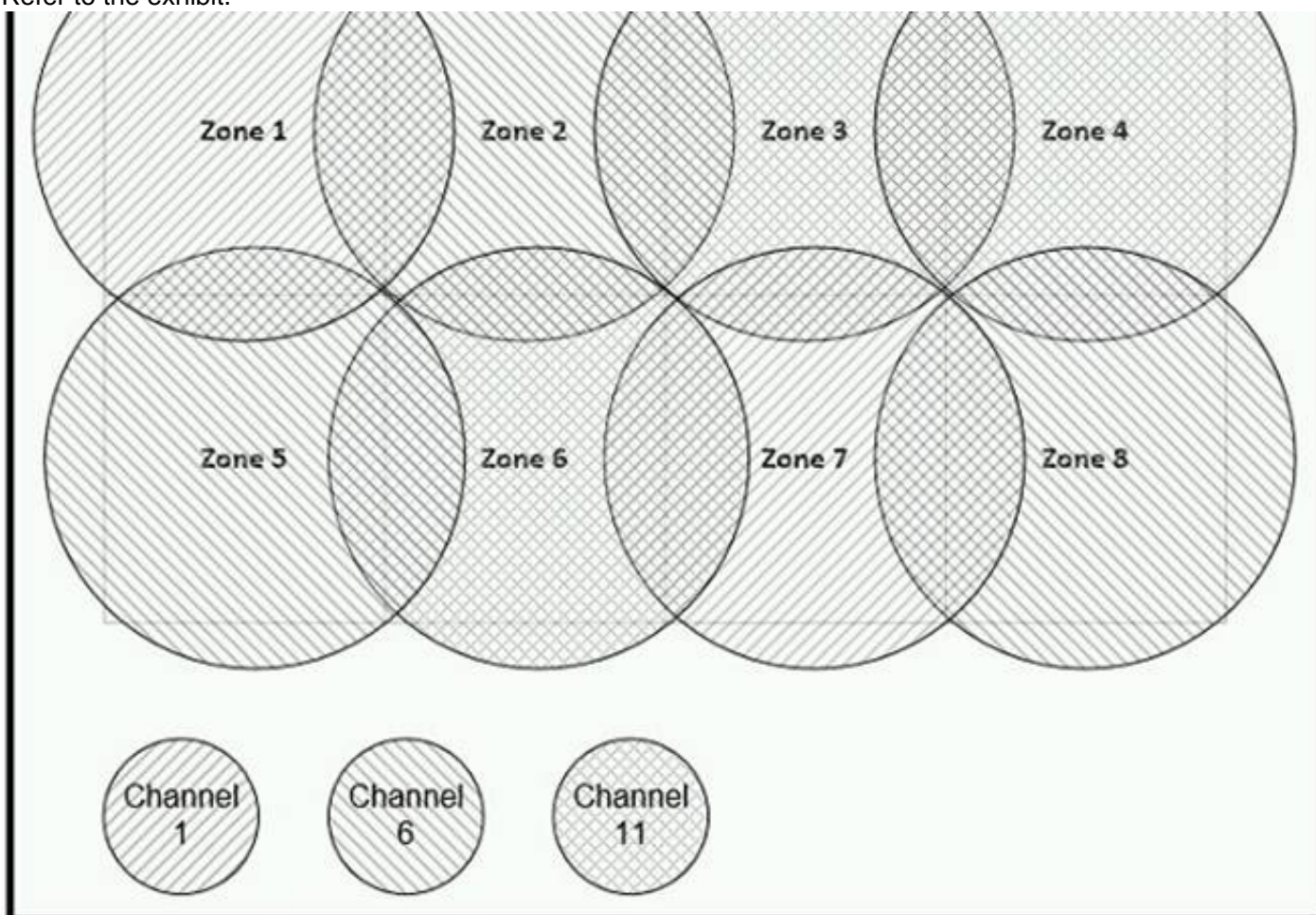
- A. Enable LLDP globally
- B. Disable autonegotiation
- C. Disable Cisco Discovery Protocol on the interface
- D. Enable LLDP-MED on the ISP device

Answer: D

NEW QUESTION 320

- (Topic 2)

Refer to the exhibit.



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

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

Answer: D

NEW QUESTION 323

- (Topic 2)

Refer to the exhibit.

```
Switch#show etherchannel summary
[output omitted]
```

Group	Port-channel	Protocol	Ports	
10	Po10 (SU)	LACP	Gi0/0 (P)	Gi0/1 (P)
20	Po20 (SU)	LACP	Gi0/2 (P)	Gi0/3 (P)

Which two commands were used to create port channel 10? (Choose two)

- ☐ int range g0/0-1
channel-group 10 mode active
- ☐ int range g0/0-1
channel-group 10 mode desirable
- ☐ int range g0/0-1
channel-group 10 mode passive
- ☐ int range g0/0-1
channel-group 10 mode auto
- ☐ int range g0/0-1
channel-group 10 mode on

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

Answer: AC

NEW QUESTION 326

- (Topic 2)

What Is the path for traffic sent from one user workstation to another workstation on a separate switch In a lhree-lter architecture model?

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

Answer: D

NEW QUESTION 330

DRAG DROP - (Topic 2)

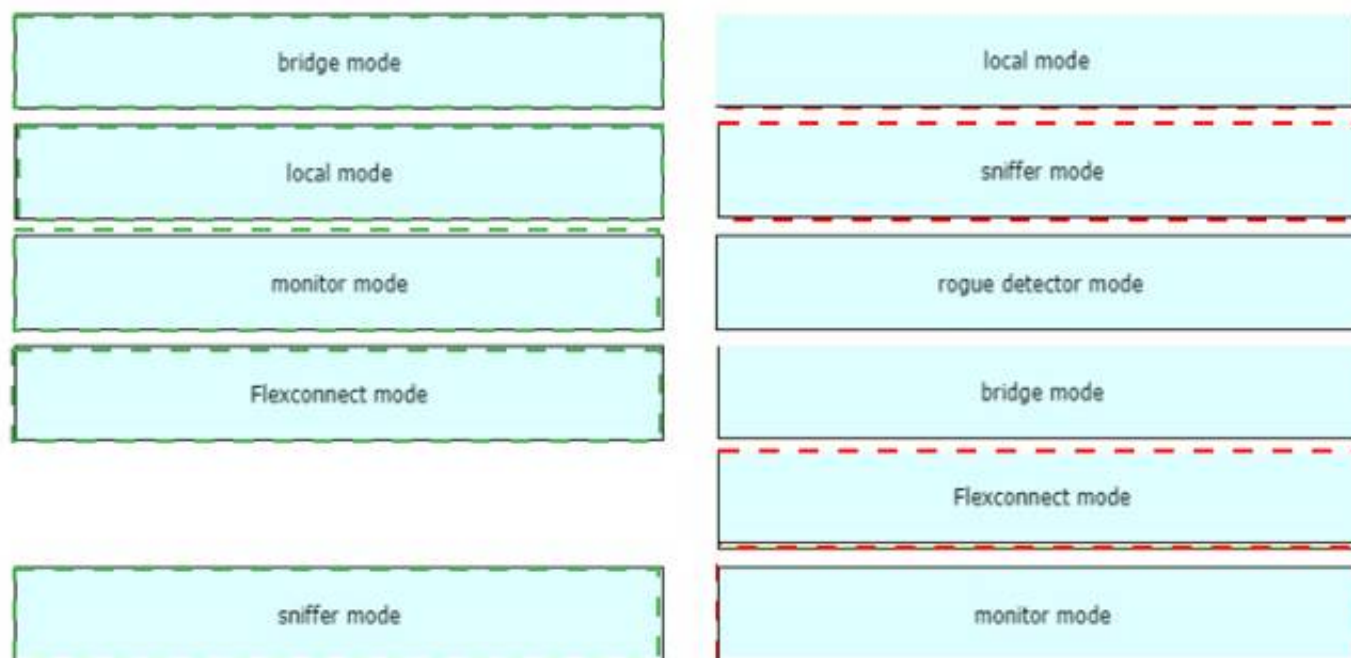
Drag and drop the lightweight access point operation modes from the left onto the descriptions on the right

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

- A. Mastered
B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 332

- (Topic 2)

Refer to the exhibit.

```
Gateway of last resort is 10.12.0.1 to network 0.0.0.0

O*E2  0.0.0.0/0 [110/1] via 10.12.0.1, 00:00:01, GigabitEthernet0/0
      10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C      10.0.0.0/24 is directly connected, GigabitEthernet0/0
L      10.0.0.2/32 is directly connected, GigabitEthernet0/0
C      10.13.0.0/24 is directly connected, GigabitEthernet0/1
L      10.13.0.2/32 is directly connected, GigabitEthernet0/1
```

If configuring a static default route on the router with the ip route 0.0.0.0 0.0.0.0 10.13.0.1 120 command how does the router respond?

- A. It ignores the new static route until the existing OSPF default route is removed
- B. It immediately replaces the existing OSPF route in the routing table with the newly configured static route
- C. It starts load-balancing traffic between the two default routes
- D. It starts sending traffic without a specific matching entry in the routing table to GigabitEthernet0/1

Answer: A

Explanation:

Our new static default route has the Administrative Distance (AD) of 120, which is bigger than the AD of OSPF External route (O*E2) so it will not be pushed into the routing table until the current OSPF External route is removed. For your information, if you don't type the AD of 120 (using the command "ip route 0.0.0.0 0.0.0.0 10.13.0.1") then the new static default route would replace the OSPF default route as the default AD of static route is 1. You will see such line in the routing table: S* 0.0.0.0/0 [1/0] via 10.13.0.1

NEW QUESTION 334

- (Topic 2)

A router running EIGRP has learned the same route from two different paths. Which parameter does the router use to select the best path?

- A. cost
- B. administrative distance
- C. metric
- D. as-path

Answer: C

Explanation:

If a router learns two different paths for the same network from the same routing protocol, it has to decide which route is better and will be placed in the routing table. Metric is the measure used to decide which route is better (lower number is better). Each routing protocol uses its own metric. For example, RIP uses hop counts as a metric, while OSPF uses cost.

NEW QUESTION 336

- (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 338

- (Topic 2)

What is the function of a server?

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

Answer: B

NEW QUESTION 342

- (Topic 2)

Which port type supports the spanning-tree portfast command without additional configuration?

- A. access ports
- B. Layer 3 main Interfaces
- C. Layer 3 subinterfaces
- D. trunk ports

Answer: A

NEW QUESTION 344

- (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 347

- (Topic 2)

What is a difference between RADIUS and TACACS+?

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

Answer: C

NEW QUESTION 348

- (Topic 2)

Refer to the exhibit.

```

R1#show ip interface brief
Interface          IP-Address      OK? Method Status      Protocol
FastEthernet0/0    unassigned      YES NVRAM   administratively down down
GigabitEthernet1/0 192.168.0.1     YES NVRAM   up          up
GigabitEthernet2/0 10.10.1.10      YES manual  up          up
GigabitEthernet3/0 10.10.10.20     YES manual  up          up
GigabitEthernet4/0 unassigned      YES NVRAM   administratively down down
Loopback0          172.16.15.10    YES manual  up          up

```

What does router R1 use as its OSPF router-ID?

- A. 10.10.1.10
- B. 10.10.10.20
- C. 172.16.15.10
- D. 192.168.0.1

Answer: C

Explanation:

OSPF uses the following criteria to select the router ID:1. Manual configuration of the router ID (via the “router-id x.x.x.x” command under OSPF router configuration mode).2. Highest IP address on a loopback interface.3. Highest IP address on a non-loopback and active (no shutdown) interface.

NEW QUESTION 351

- (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 353

- (Topic 2)

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

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

Answer: A

NEW QUESTION 355

- (Topic 2)

Which type of organization should use a collapsed-core architecture?

- A. large and requires a flexible, scalable network design
- B. large and must minimize downtime when hardware fails
- C. small and needs to reduce networking costs currently
- D. small but is expected to grow dramatically in the near future

Answer: C

Explanation:

A collapsed-core architecture is a limited investment for a small company, and may be efficient and productive for a limited time.

NEW QUESTION 360

- (Topic 2)

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

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

Answer: C

NEW QUESTION 365

- (Topic 2)

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

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

Answer: B

NEW QUESTION 368

- (Topic 2)

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

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

Answer: BE

NEW QUESTION 370

- (Topic 2)

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

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

Answer: A

Explanation:

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

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

NEW QUESTION 373

- (Topic 2)

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

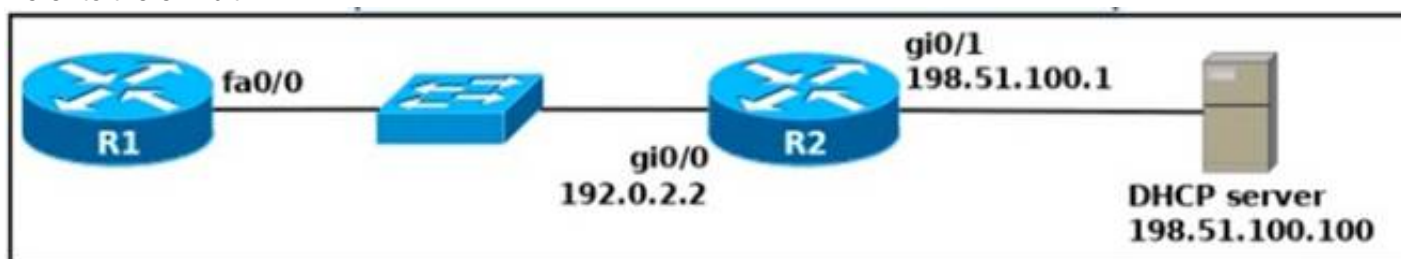
- A. global unicast
- B. unique local
- C. link-local
- D. multicast

Answer: B

NEW QUESTION 378

- (Topic 2)

Refer to the exhibit.



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

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

Answer: BC

NEW QUESTION 380

- (Topic 2)

An engineer needs to configure LLDP to send the port description time length value (TLV). What command sequence must be implemented?

- A. switch(config-line)#lldp port-description
- B. switch(config)#lldp port-description
- C. switch(config-if)#lldp port-description
- D. switch#lldp port-description

Answer: B

NEW QUESTION 381

- (Topic 1)

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

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

Answer: C

NEW QUESTION 382

- (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 384

DRAG DROP - (Topic 2)

Drag and drop the descriptions from the left onto the configuration-management technologies on the right.

fundamental configuration elements are stored in a manifest	Ansible
uses TCP port 10002 for configuration push jobs	
uses Ruby for fundamental configuration elements	
uses SSH for remote device communication	Chef
uses TCP 8140 for communication	
uses YAML for fundamental configuration elements	Puppet

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Ansible:– uses SSH for remote device communication– uses YAML for fundamental configuration elements

Chef:– uses TCP port 10002 for configuration push jobs– uses Ruby for fundamental configuration elements

Puppet:– fundamental configuration elements are stored in a manifest– uses TCP 8140 for communication

The focus of Ansible is to be streamlined and fast, and to require no node agent installation. Thus, Ansible performs all functions over SSH. Ansible is built on Python, in contrast to the Ruby foundation of Puppet and Chef. TCP port 10002 is the command port. It may be configured in the Chef Push Jobs configuration file. This port allows Chef Push Jobs clients to communicate with the Chef Push Jobs server. Puppet is an open-source configuration management solution, which is built with Ruby and offers custom Domain Specific Language (DSL) and Embedded Ruby (ERB) templates to create custom Puppet language files, offering a declarative-paradigm programming approach. A Puppet piece of code is called a manifest, and is a file with .pp extension.

NEW QUESTION 386

- (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 388

- (Topic 1)

Refer to the exhibit.

```
import ncclient

with ncclient.manager.connect(host='192.168.1.1', port=830, username='root',
                             password='teset123!', allow_agent=False) as m:
    print(m.get_config('running').data_xml)
```

After running the code in the exhibit, which step reduces the amount of data that the NETCONF server returns to the NETCONF client, to only the interface's configuration?

- A. Use the lxml library to parse the data returned by the NETCONF server for the interface's configuration.
- B. Create an XML filter as a string and pass it to get_config() method as an argument.
- C. Create a JSON filter as a string and pass it to the get_config() method as an argument.
- D. Use the JSON library to parse the data returned by the NETCONF server for the interface's configuration.

Answer: D

NEW QUESTION 391

- (Topic 1)

An engineering team asks an implementer to configure syslog for warning conditions and error conditions. Which command does the implementer configure to achieve the desired result?

- A. logging trap 5
- B. logging trap 2
- C. logging trap 4
- D. logging trap 3

Answer: C

NEW QUESTION 392

- (Topic 1)

Which network action occurs within the data plane?

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

Answer: A

NEW QUESTION 393

- (Topic 1)

Which two command sequences must you configure on switch to establish a Layer 3 EtherChannel with an open-standard protocol? (Choose two)

- A. interface GigabitEthernet0/0/1 channel-group 10 mode on
- B. interface GigabitEthernet0/0/1 channel-group 10 mode active
- C. interface GigabitEthernet0/0/1 channel-group 10 mode auto
- D. interface port-channel 10 switchportswitchport mode trunk
- E. interface port-channel 10 no switchportip address 172.16.0.1.255.255.255.0

Answer: BE

NEW QUESTION 395

- (Topic 1)

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

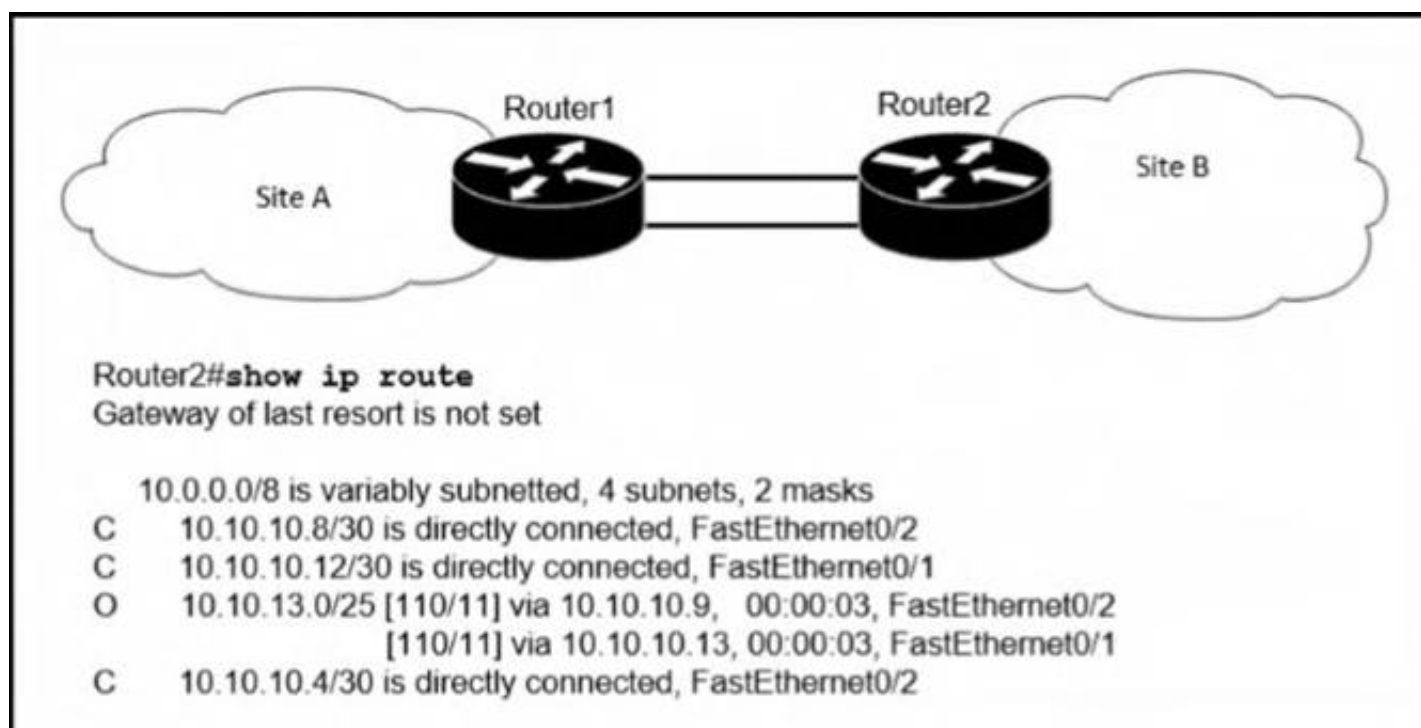
- A. The link is in a down state.
- B. The link is in an error disables state
- C. The link is becomes an access port.
- D. The link becomes a trunk port.

Answer: D

NEW QUESTION 396

- (Topic 1)

Refer to the exhibit.



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

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

Answer: B

NEW QUESTION 398

- (Topic 1)

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

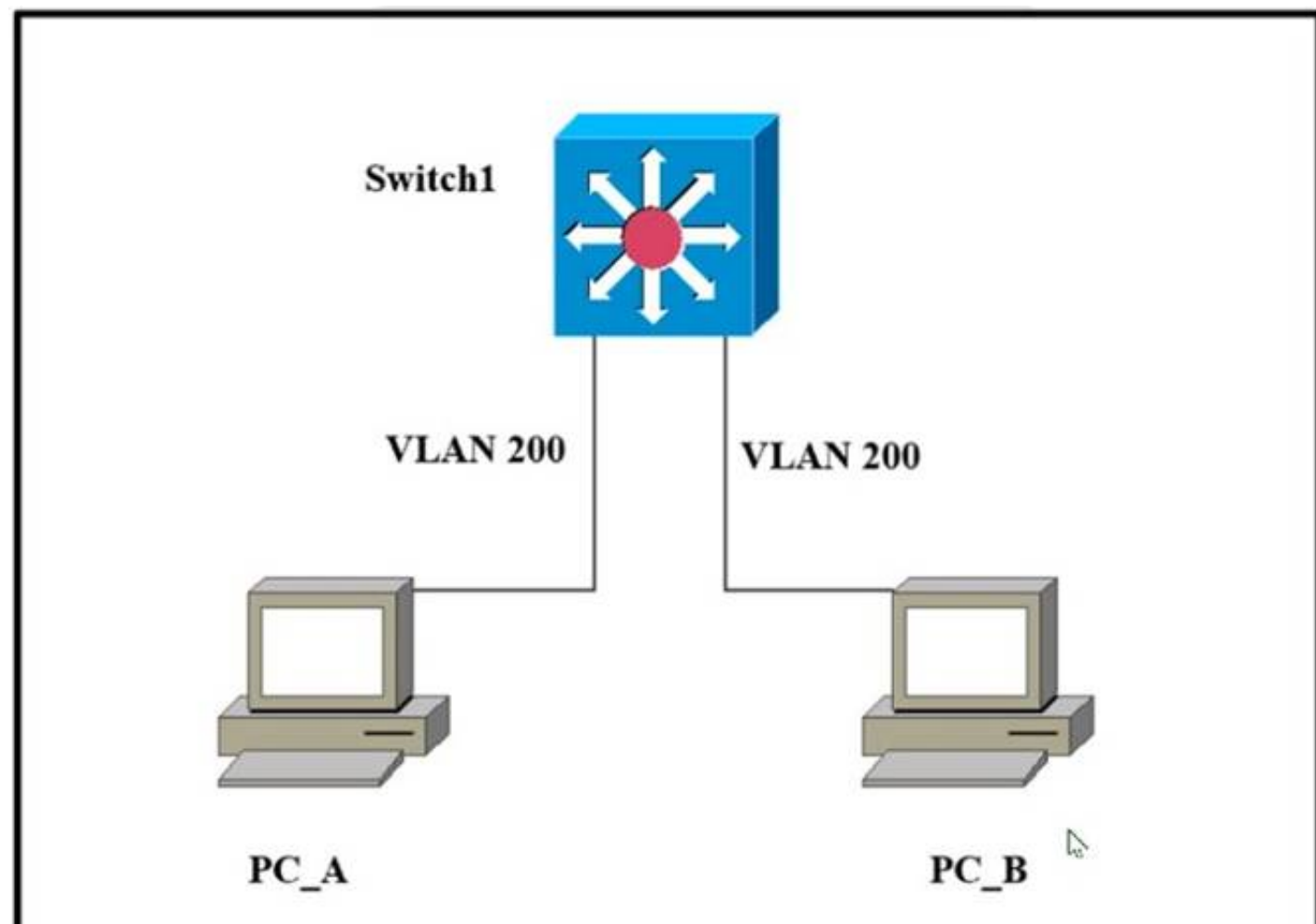
- A. broadband cable access
- B. frame-relay packet switching
- C. dedicated point-to-point leased line
- D. Integrated Services Digital Network switching.

Answer: A

NEW QUESTION 401

- (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 405

- (Topic 1)

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

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

Answer: CD

NEW QUESTION 408

- (Topic 1)

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

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

Answer: A

NEW QUESTION 409

- (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 412

- (Topic 1)

What are network endpoints?

- A. act as routers to connect a user to the service prowler network
- B. a threat to the network if they are compromised
- C. support inter-VLAN connectivity
- D. enforce policies for campus-wide traffic going to the internet

Answer: B

NEW QUESTION 413

- (Topic 1)

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

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

Answer: CD

Explanation:

Cisco DNA Center Device Management

* 3. Monitor the cloud for software update

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

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

Traditional device management

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

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

? Implements changes via an SSH terminal

NEW QUESTION 416

- (Topic 1)

Which implementation provides the strongest encryption combination for the wireless environment?

- A. WPA2 + AES
- B. WPA + AES
- C. WEP
- D. WPA + TKIP

Answer: A

NEW QUESTION 418

- (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 419

- (Topic 1)

What describes the operation of virtual machines?

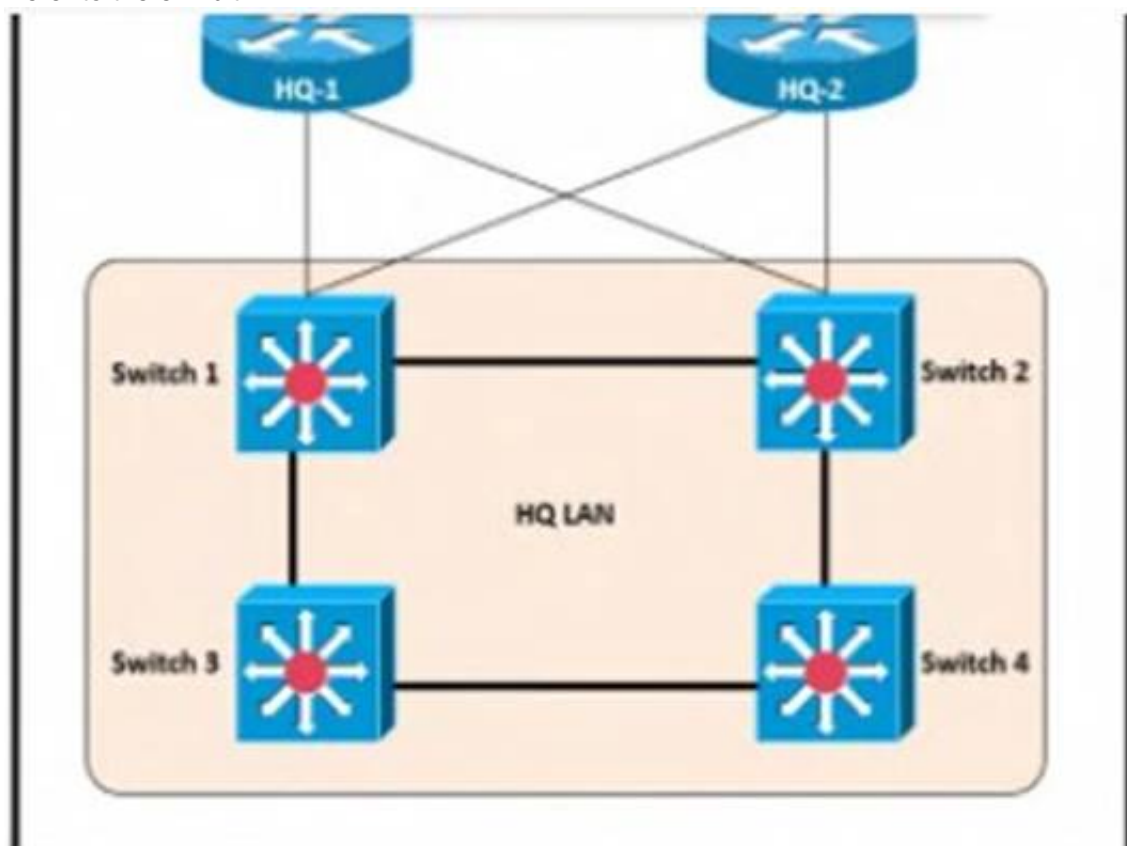
- A. Virtual machines are responsible for managing and allocating host hardware resources
- B. In a virtual machine environment, physical servers must run one operating system at a time.
- C. Virtual machines are the physical hardware that support a virtual environment.
- D. Virtual machines are operating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

Answer: B

NEW QUESTION 421

- (Topic 1)

Refer to the exhibit.



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

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

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

Answer: C

Explanation:

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

NEW QUESTION 423

DRAG DROP - (Topic 1)

Drag drop the descriptions from the left onto the correct configuration-management technologies on the right.

fundamental configuration elements are stored in a manifest

uses TCP port 10002 for configuration push jobs

uses Ruby for fundamental configuration elements

uses SSH for remote device communication

uses TCP 8140 for communication

uses YAML for fundamental configuration elements

Ansible

Chef

Puppet

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

The focus of Ansible is to be streamlined and fast, and to require no node agent installation. Thus, Ansible performs all functions over SSH. Ansible is built on Python, in contrast to the Ruby foundation of Puppet and Chef. TCP port 10002 is the command port. It may be configured in the Chef Push Jobs configuration file . This port allows Chef Push Jobs clients to communicate with the Chef Push Jobs server. Puppet is an open-source configuration management solution, which is built with Ruby and offers custom Domain Specific Language (DSL) and Embedded Ruby (ERB) templates to create custom Puppet language files, offering a declarative-paradigm programming approach. A Puppet piece of code is called a manifest, and is a file with .pp extension.

NEW QUESTION 428

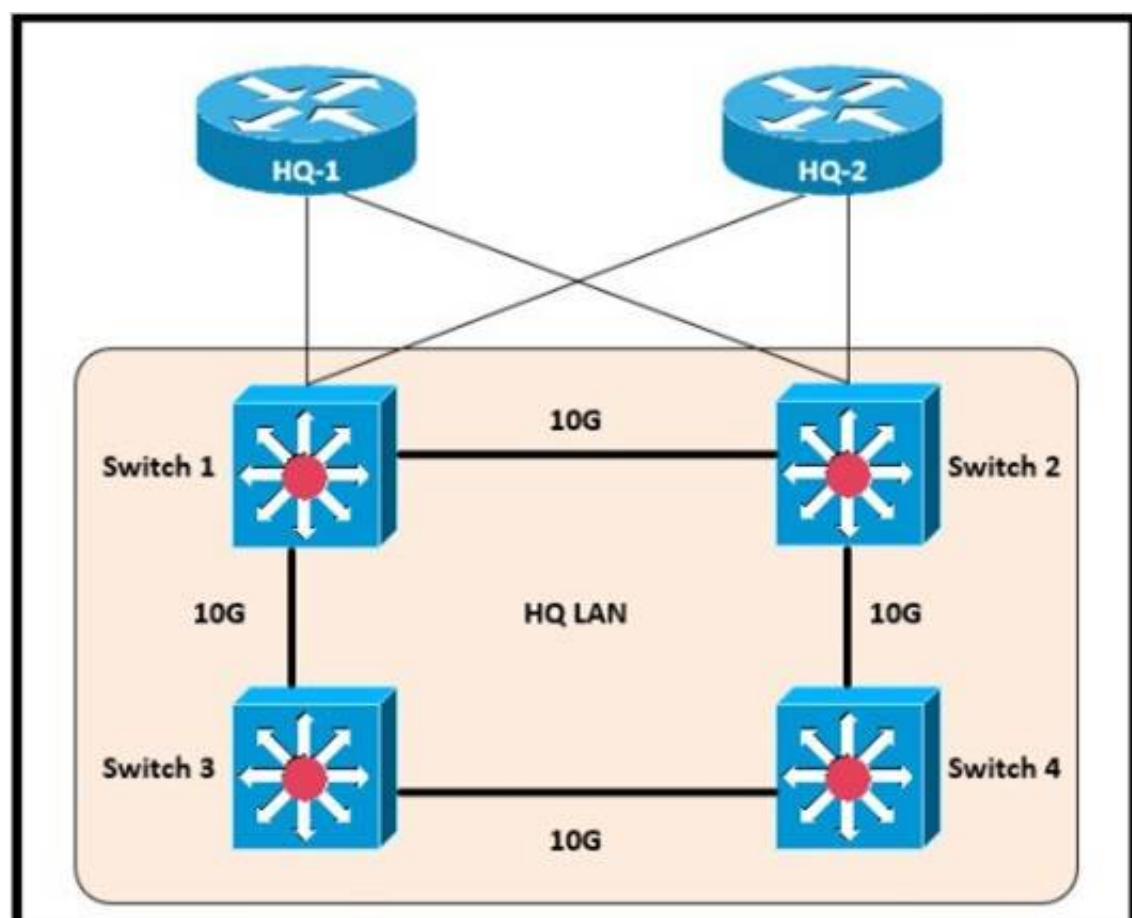
- (Topic 1)
How do TCP and UDP differ in the way they guarantee packet delivery?

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

Answer: A

NEW QUESTION 430

- (Topic 1)
Refer to the exhibit.



Which switch becomes the root of the spanning tree for VLAN 110?

```
Switch 1
VLAN 110 - 32778 0018.184e.3c00
Switch 2
VLAN 110 - 24586 001a.e3ff.a680
Switch 3
VLAN 110 - 28682 0022.55cf.cc00
Switch 4
VLAN 110 - 64000 0e38.7363.657f
```

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

Answer: B

NEW QUESTION 432

- (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 436

- (Topic 1)

What occurs when overlapping Wi-Fi channels are implemented?

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

Answer: C

NEW QUESTION 438

- (Topic 1)

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

- A. ISATAP
- B. GRE over IPsec
- C. IPsec over ISATAP

D. GRE

Answer: B

NEW QUESTION 443

- (Topic 1)

Which virtual MAC address is used by VRRP group 1?

- A. 0050.0c05.ad81
- B. 0007.c061.bc01
- C. 0000.5E00.0101
- D. 0500.3976.6401

Answer: C

Explanation:

The virtual router MAC address associated with a virtual router is an IEEE 802 MAC Address in the following format: 00-00-5E-00-01-{VRID} (in hex in internet standard bit-order)

NEW QUESTION 445

- (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 447

- (Topic 1)

What is a characteristic of cloud-based network topology?

- A. wireless connections provide the sole access method to services
- B. onsite network services are provided with physical Layer 2 and Layer 3 components
- C. services are provided by a public, private, or hybrid deployment
- D. physical workstations are configured to share resources

Answer: A

NEW QUESTION 449

- (Topic 1)

What is a benefit of using a Cisco Wireless LAN Controller?

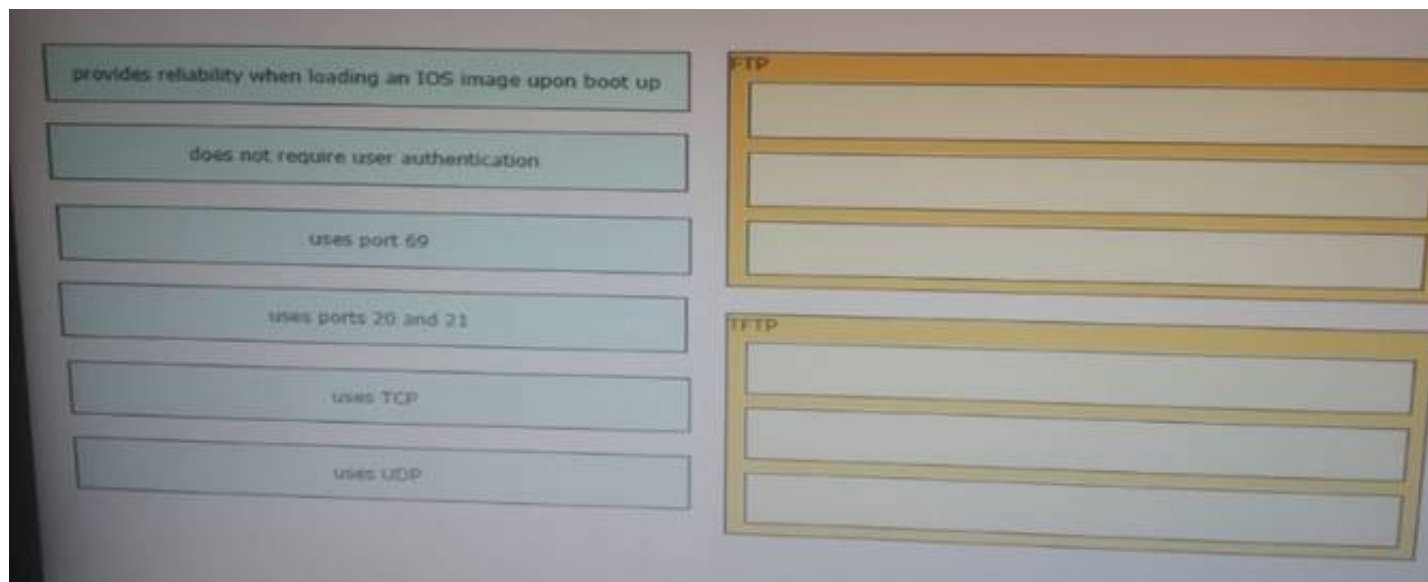
- A. Central AP management requires more complex configurations
- B. Unique SSIDs cannot use the same authentication method
- C. It supports autonomous and lightweight APs
- D. It eliminates the need to configure each access point individually

Answer: D

NEW QUESTION 452

DRAG DROP - (Topic 1)

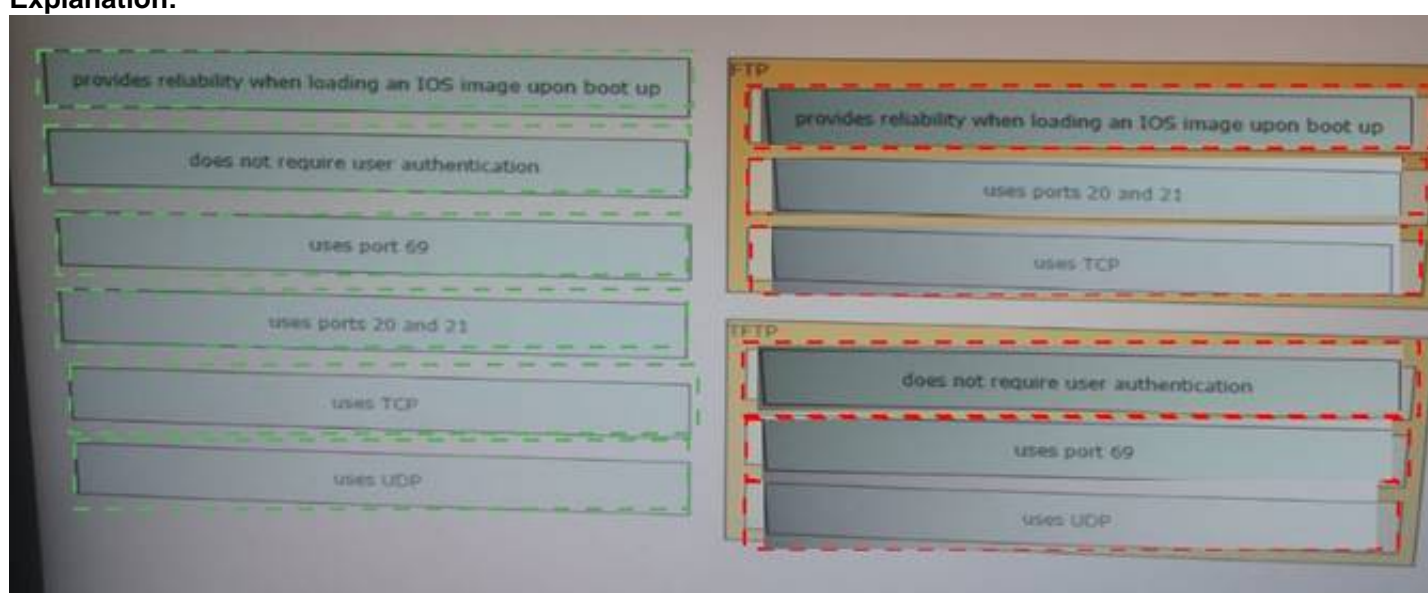
Drag and drop the descriptions of file-transfer protocols from the left onto the correct protocols on the right.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 454

- (Topic 1)

What is a DHCP client?

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

Answer: A

NEW QUESTION 457

- (Topic 1)

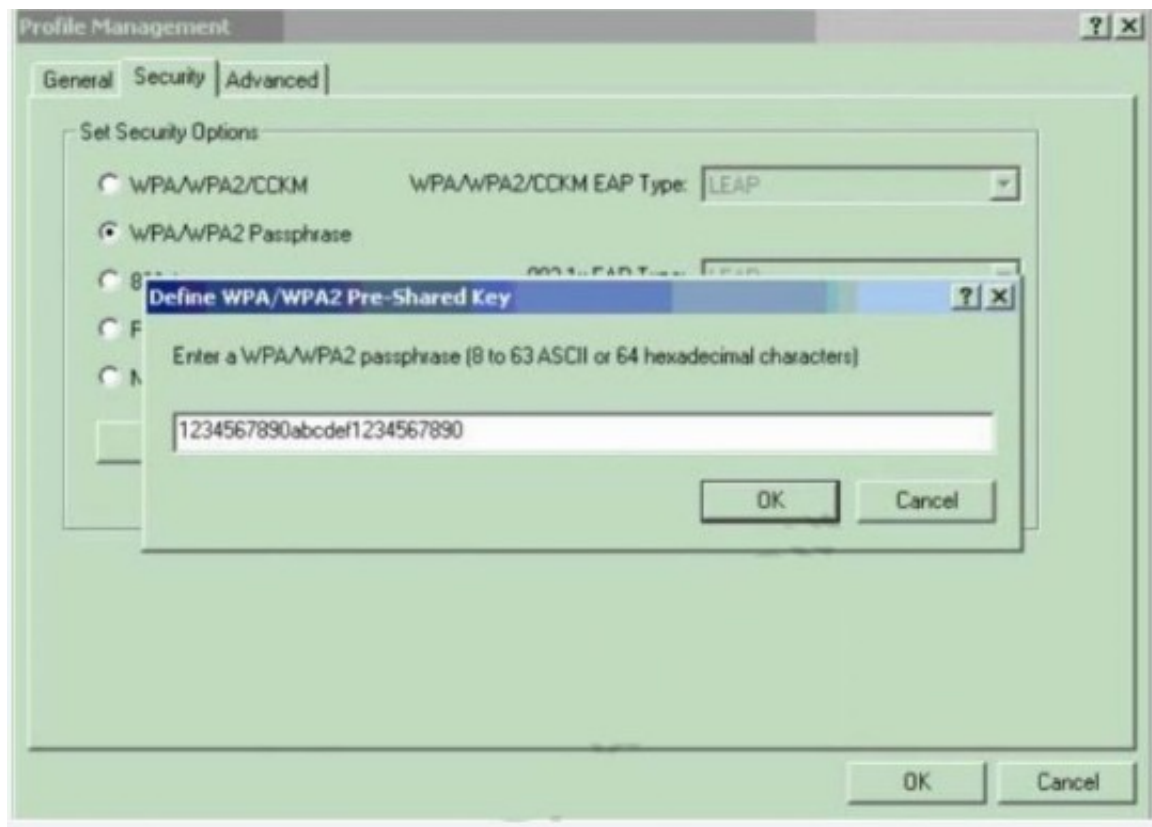
Which type of wireless encryption is used for WPA2 in preshared key mode?

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

Answer: D

Explanation:

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



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

NEW QUESTION 459

- (Topic 1)

What is an advantage of Cisco DNA Center versus traditional campus device management?

- A. It supports numerous extensibility options including cross-domain adapters and third-party SDKs.
- B. It supports high availability for management functions when operating in cluster mode.
- C. It enables easy autodiscovery of network elements in a brownfield deployment.
- D. It is designed primarily to provide network assurance.

Answer: A

NEW QUESTION 462

- (Topic 1)

What must be considered when using 802.11a?

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

Answer: A

NEW QUESTION 465

- (Topic 1)

Which mode must be used to configure EtherChannel between two switches without using a negotiation protocol?

- A. on
- B. auto
- C. active
- D. desirable

Answer: A

Explanation:

The Static Persistence (or “on” mode) bundles the links unconditionally and no negotiation protocol is used. In this mode, neither PAgP nor LACP packets are sent or received.

NEW QUESTION 467

- (Topic 1)

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

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

Answer: B

NEW QUESTION 468

- (Topic 1)

Refer to the exhibit.

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

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

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

Answer: C

NEW QUESTION 471

DRAG DROP - (Topic 1)

Drag the IPv6 DNS record types from the left onto the description on the right.

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

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

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

NEW QUESTION 473

- (Topic 1)

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

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

Answer: B

NEW QUESTION 475

- (Topic 1)

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

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

Answer: BE

Explanation:

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

Reference:

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

The Application Policy Infrastructure Controller (APIC) REST API is a programmatic interface that uses REST architecture. The API accepts and returns HTTP (not

enabled by default) or HTTPS messages that contain JavaScript Object Notation (JSON) or Extensible Markup Language (XML) documents.

NEW QUESTION 476

- (Topic 1)

What are two southbound APIs? (Choose two)

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

Answer: AB

Explanation:

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

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

NEW QUESTION 478

- (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 482

- (Topic 1)

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

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

Answer: A

NEW QUESTION 485

- (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 490

- (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 494

- (Topic 1)

Which CRUD operation modifies an existing table or view?

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

Answer: D

NEW QUESTION 495

- (Topic 1)

Refer to the exhibit.

```

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

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

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

Answer: B

NEW QUESTION 498

- (Topic 1)

An engineer is asked to protect unused ports that are configured in the default VLAN on a switch.

Which two steps will fulfill the request? (Choose two)

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

Answer: BC

NEW QUESTION 501

- (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 502

- (Topic 1)

Refer to the exhibit.

```
switch(config)#interface gigabitEthernet 1/11

switch(config-if)#switchport mode access

switch(config-if)#spanning-tree portfast

switch(config-if)#spanning-tree bpduguard enable
```

What is the result if Gig1/11 receives an STP BPDU?

- A. The port transitions to STP blocking
- B. The port transitions to the root port
- C. The port immediately transitions to STP forwarding.
- D. The port goes into error-disable state

Answer: D

NEW QUESTION 505

- (Topic 1)

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

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

Answer: A

NEW QUESTION 506

- (Topic 1)

Refer to the exhibit.

```
iBGP route 10.0.0.0/30
RIP route 10.0.0.0/30
OSPF route 10.0.0.0/16
OSPF route 10.0.0.0/30
EIGRP route 10.0.0.1/32
```

A router reserved these five routes from different routing information sources. Which two routes does the router install in its routing table? (Choose two)

- A. RIP route 10.0.0.0/30
- B. iBGP route 10.0.0.0/30
- C. OSPF route 10.0.0.0/30
- D. EIGRP route 10.0.0.1/32
- E. OSPF route 10.0.0.0/16

Answer: CD

NEW QUESTION 509

- (Topic 1)

Which MAC address is recognized as a VRRP virtual address?

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

Answer: A

Explanation:

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

NEW QUESTION 511

- (Topic 1)

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

- A. VTP

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

Answer: D

NEW QUESTION 513

- (Topic 1)

Several new coverage cells are required to improve the Wi-Fi network of an organization. Which two standard designs are recommended? (choose two.)

- A. 5GHz provides increased network capacity with up to 23 nonoverlapping channels.
- B. For maximum throughput, the WLC is configured to dynamically set adjacent access points to the same channel.
- C. 5GHz channel selection requires an autonomous access point.
- D. Adjacent cells with overlapping channels use a repeater access point.
- E. Cells that overlap one another are configured to use nonoverlapping channels.

Answer: BE

NEW QUESTION 514

- (Topic 1)

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

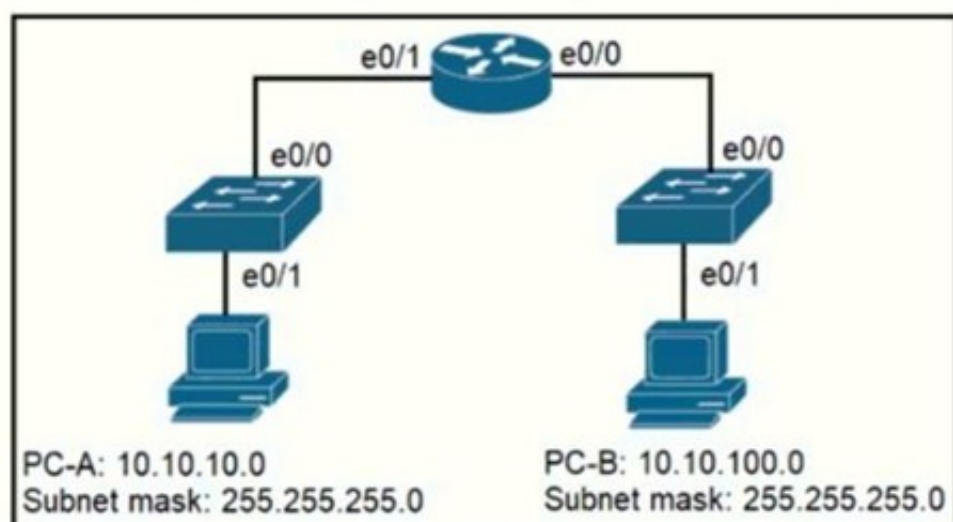
- A. serves as the network aggregation point
- B. provides a boundary between Layer 2 and Layer 3 communications
- C. designed to meet continuous, redundant uptime requirements
- D. is the backbone for the network topology
- E. physical connection point for a LAN printer

Answer: BC

NEW QUESTION 516

- (Topic 1)

Refer to the exhibit.



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

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

Answer: B

Explanation:

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

NEW QUESTION 519

- (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 524

- (Topic 1)

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

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

Answer: D

NEW QUESTION 527

- (Topic 1)

What is a DHCP client?

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

Answer: B

NEW QUESTION 528

- (Topic 1)

What is the benefit of using FHRP?

- A. reduced management overhead on network routers
- B. balancing traffic across multiple gateways in proportion to their loads
- C. higher degree of availability
- D. reduced ARP traffic on the network

Answer: C

NEW QUESTION 532

- (Topic 1)

What is the primary purpose of a First Hop Redundancy Protocol?

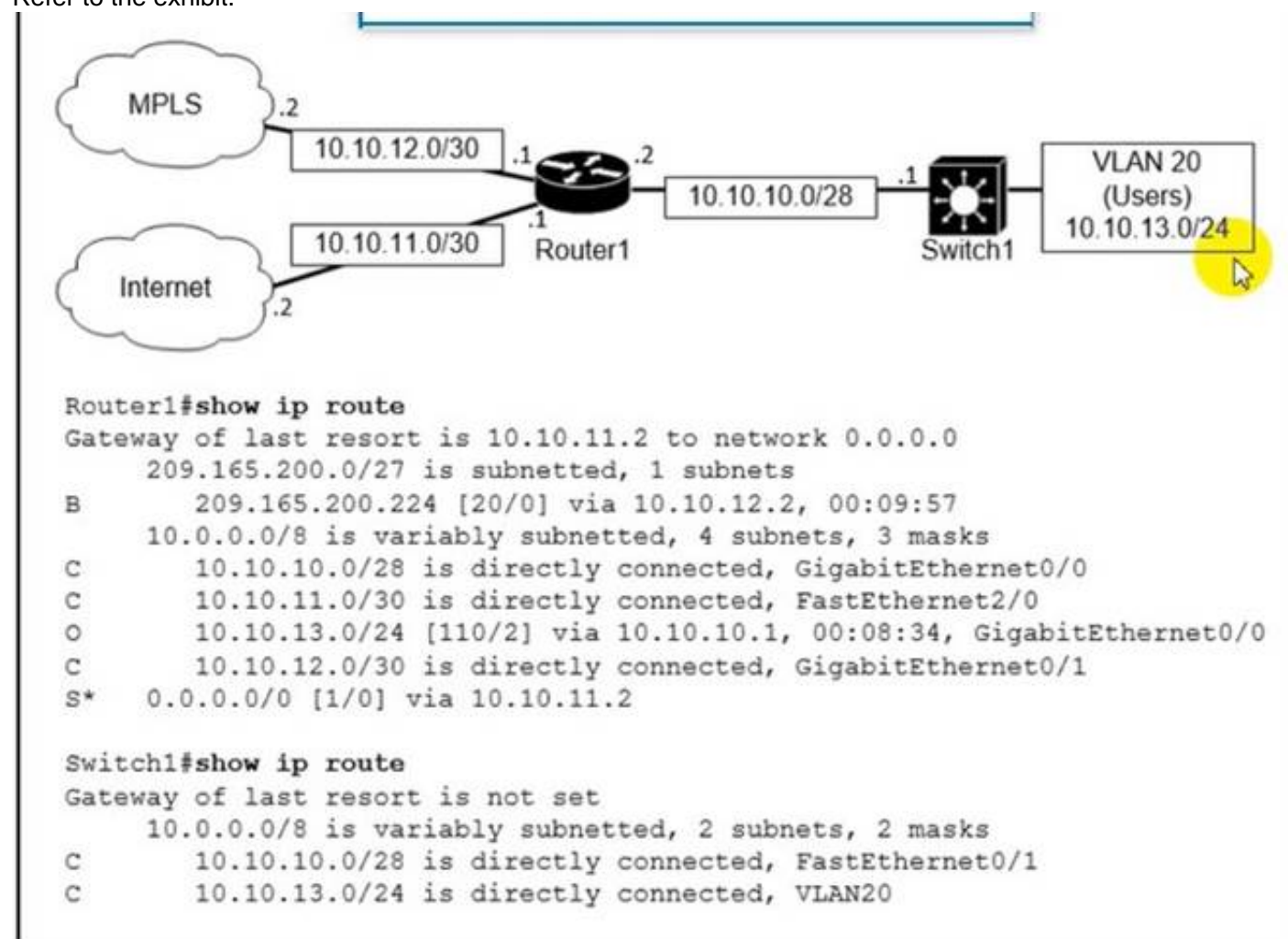
- A. It allows directly connected neighbors to share configuration information.
- B. It allows a router to use bridge priorities to create multiple loop-free paths to a single destination.
- C. It reduces routing failures by allowing Layer 3 load balancing between OSPF neighbors that have the same link metric.
- D. It reduces routing failures by allowing more than one router to represent itself, as the default gateway of a network.

Answer: D

NEW QUESTION 536

- (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 541

DRAG DROP - (Topic 1)

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

SMTP

SNMP

TFTP

VoIP

SSH

FTP

Connection Oriented

Connectionless

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

SMTP

SNMP

TFTP

VoIP

SSH

FTP

Connection Oriented

Connectionless

NEW QUESTION 542

- (Topic 1)

How is the native VLAN secured in a network?

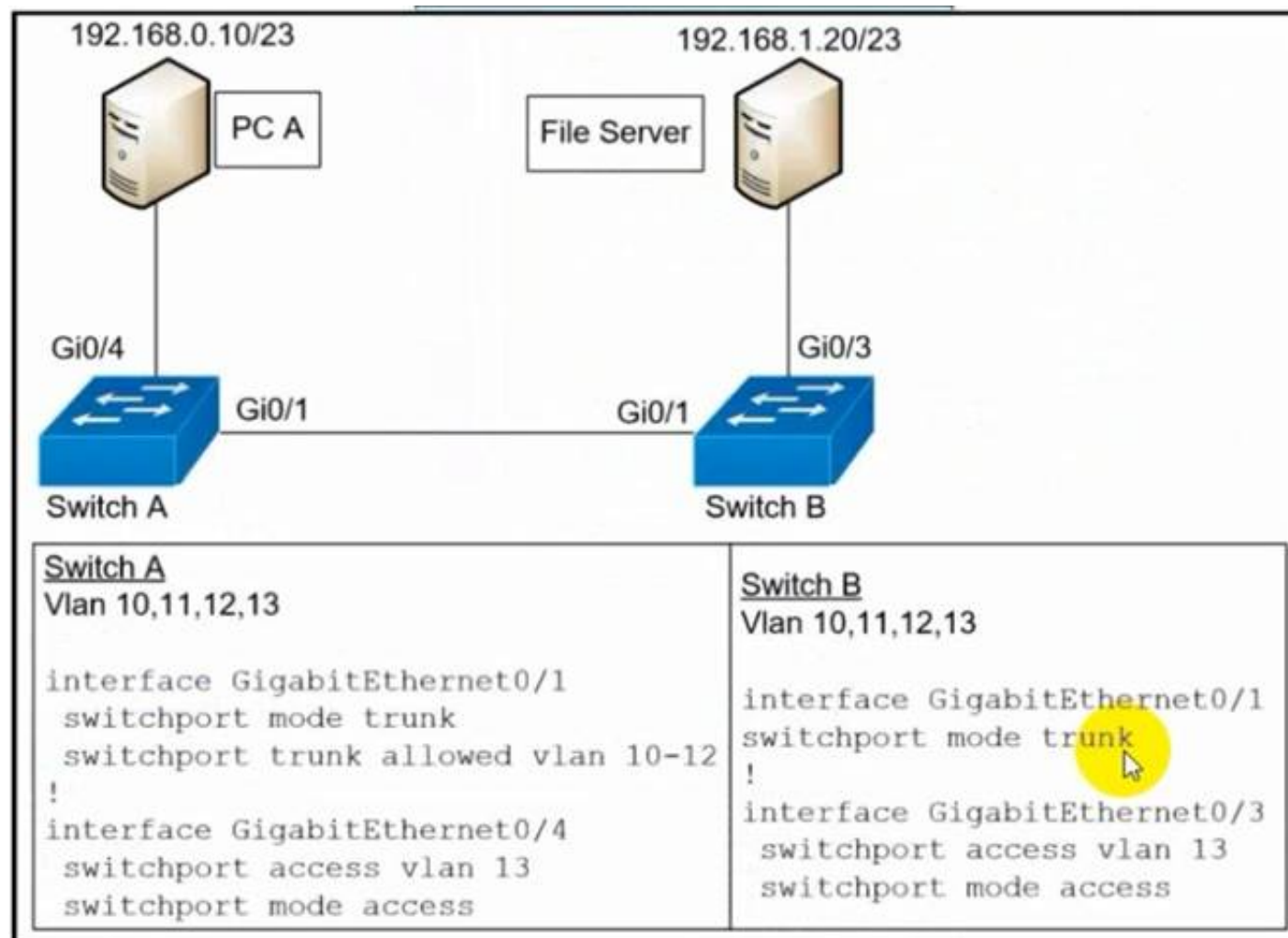
- A. separate from other VLANs within the administrative domain
- B. give it a value in the private VLAN range
- C. assign it as VLAN 1
- D. configure it as a different VLAN ID on each end of the link

Answer: A

NEW QUESTION 546

- (Topic 1)

Refer to the exhibit.



A network engineer must configured communication between PC A and the File Server. To prevent interruption for any other communications, which command must be configured?

- A. Switch trunk allowed vlan 12
- B. Switchport trunk allowed vlan none
- C. Switchport trunk allowed vlan add 13
- D. Switchport trunk allowed vlan remove 10-11

Answer: C

NEW QUESTION 551

- (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 556

- (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 560

- (Topic 1)

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

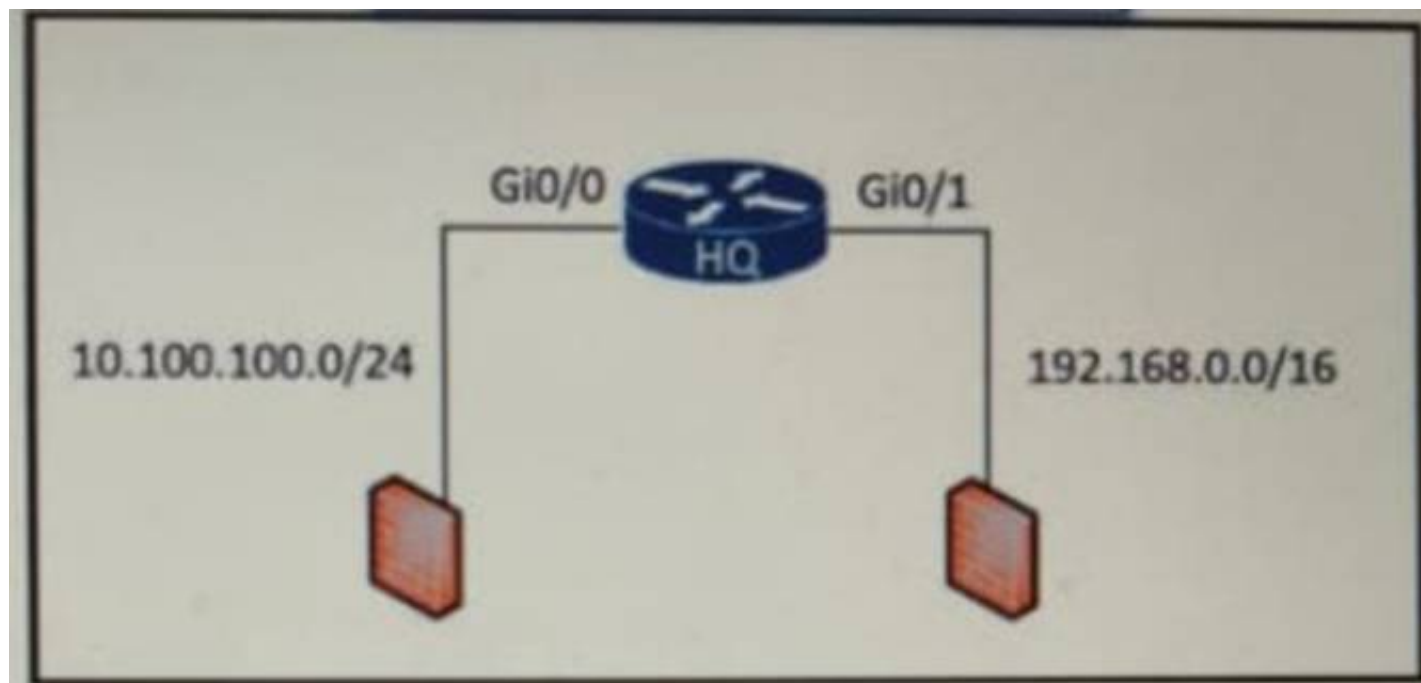
- A. configure port in the native VLAN
- B. configure ports in a black hole VLAN
- C. configure in a nondefault native VLAN
- D. configure ports as access ports

Answer: B

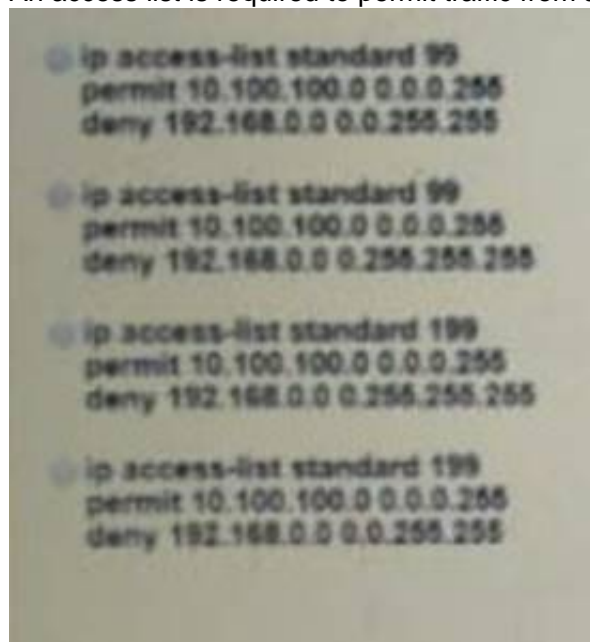
NEW QUESTION 562

- (Topic 1)

Refer to the exhibit.



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



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

Answer: A

NEW QUESTION 566

- (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 569

- (Topic 1)

Which output displays a JSON data representation?

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

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

Answer: C

Explanation:

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

NEW QUESTION 572

- (Topic 1)

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

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

Answer: B

NEW QUESTION 573

- (Topic 1)

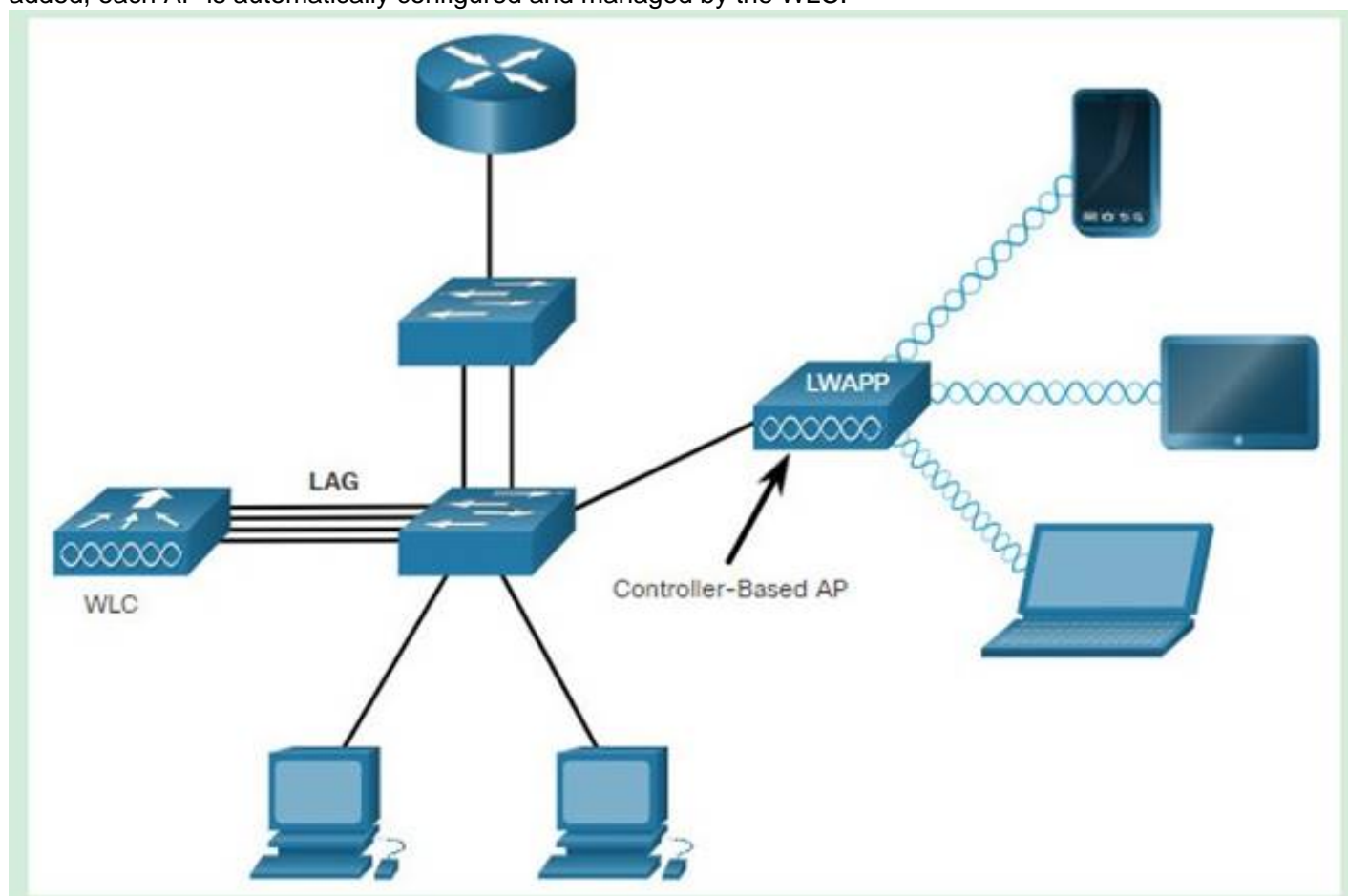
What is a function of Wireless LAN Controller?

- 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 575

- (Topic 1)

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

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

Answer: B

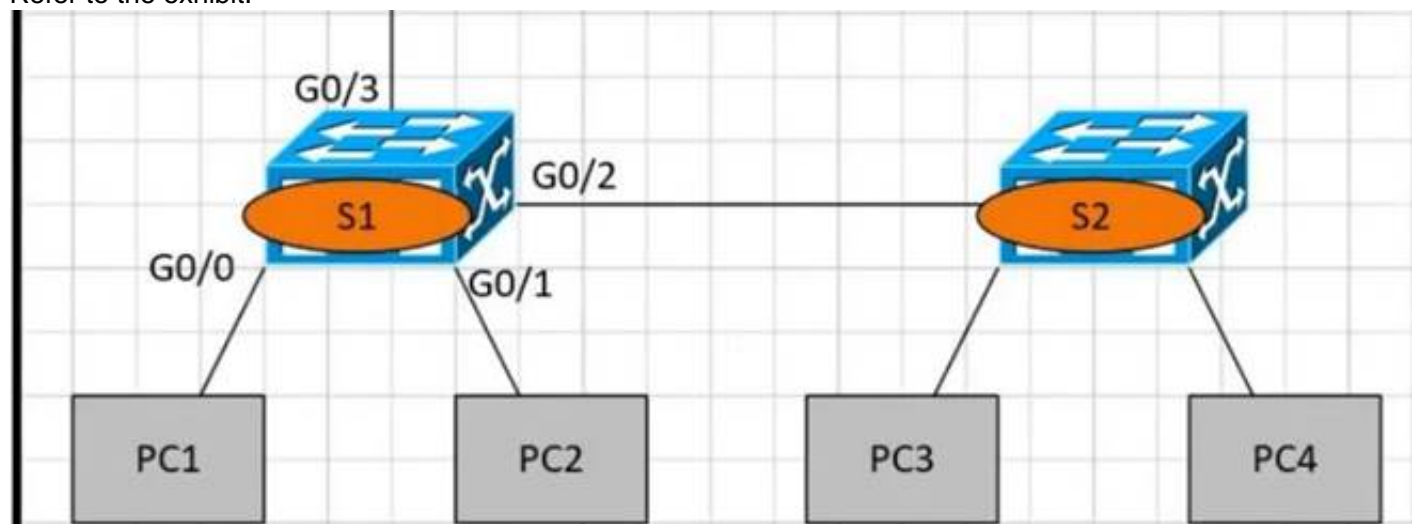
Explanation:

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

NEW QUESTION 578

- (Topic 1)

Refer to the exhibit.



PC1 is trying to ping PC3 for the first time and sends out an ARP to S1. Which action is taken by S1?

- A. It forwards it out G0/3 only
- B. It is flooded out every port except G0/0.
- C. It drops the frame.
- D. It forwards it out interface G0/2 only.

Answer: B

NEW QUESTION 581

- (Topic 1)

In software-defined architecture, which plane handles switching for traffic through a Cisco router?

- A. Control
- B. Management
- C. Data
- D. application

Answer: C

Explanation:

Data plane—Handles all the data traffic. The basic functionality of a Cisco NX-OS device is to forward packets from one interface to another. The packets that are not meant for the switch itself are called the transit packets. These packets are handled by the data plane

NEW QUESTION 582

- (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 583

DRAG DROP - (Topic 1)

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

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

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

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

NEW QUESTION 584

- (Topic 1)

When DHCP is configured on a router, which command must be entered so the default gateway is automatically distributed?

- A. default-router
- B. default-gateway
- C. ip helper-address
- D. dns-server

Answer: A

NEW QUESTION 589

- (Topic 1)

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

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

Answer: A

NEW QUESTION 594

- (Topic 1)

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

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

Answer: C

Explanation:

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

NEW QUESTION 598

- (Topic 1)

How does Cisco DNA Center gather data from the network?

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

Answer: A

NEW QUESTION 599

- (Topic 1)

How does QoS optimize voice traffic?

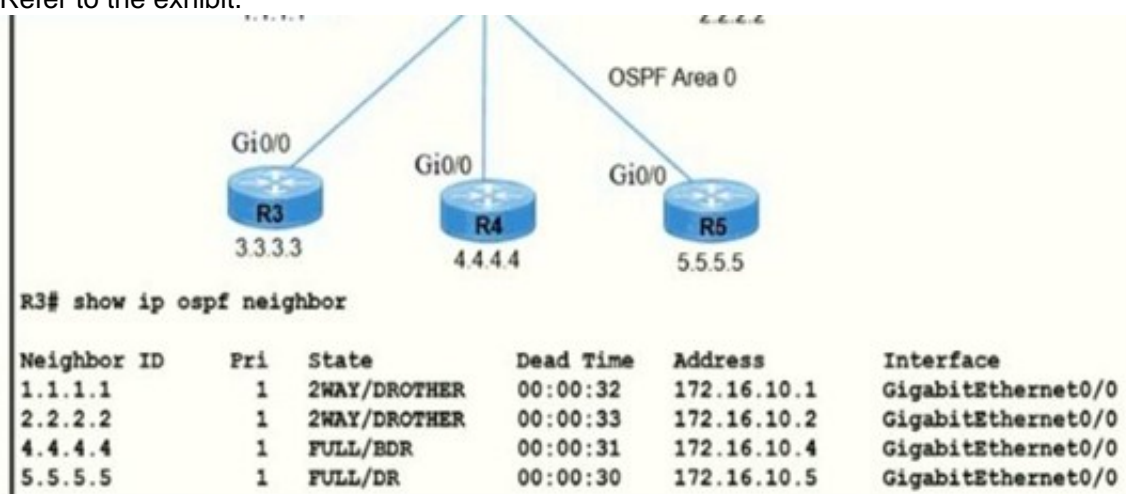
- A. reducing bandwidth usage
- B. by reducing packet loss
- C. by differentiating voice and video traffic
- D. by increasing jitter

Answer: C

NEW QUESTION 600

- (Topic 1)

Refer to the exhibit.



R5 is the current DR on the network, and R4 is the BDR. Their interfaces are flapping, so a network engineer wants the OSPF network to elect a different DR and BDR. Which set of configurations must the engineer implement?

A)

```

R4(config)#interface gi0/0
R4(config-if)#ip ospf priority 20

R5(config)#interface gi0/0
R5(config-if)#ip ospf priority 10
  
```

B)

```
R2(config)#interface gi0/0
R2(config-if)#ip ospf priority 259
```

```
R3(config)#interface gi0/0
R3(config-if)#ip ospf priority 256
```

C)

```
R5(config)#interface gi0/0
R5(config-if)#ip ospf priority 120
```

```
R4(config)#interface gi0/0
R4(config-if)#ip ospf priority 110
```

D)

```
R3(config)#interface gi0/0
R3(config-if)#ip ospf priority 255
```

```
R2(config)#interface gi0/0
R2(config-if)#ip ospf priority 240
```

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

Answer: D

NEW QUESTION 605

- (Topic 1)

In software defined architectures, which plane is distributed and responsible for traffic forwarding?

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

Answer: D

NEW QUESTION 606

- (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 611

- (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 612

- (Topic 1)

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

- A. The two routers synchronize configurations to provide consistent packet forwarding
- 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 share a virtual IP address that is used as the default gateway for devices on the LAN
- E. The two routers share the same interface IP address and default gateway traffic is load- balanced between them

Answer: BD

NEW QUESTION 616

- (Topic 1)

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

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

Answer: D

NEW QUESTION 620

- (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

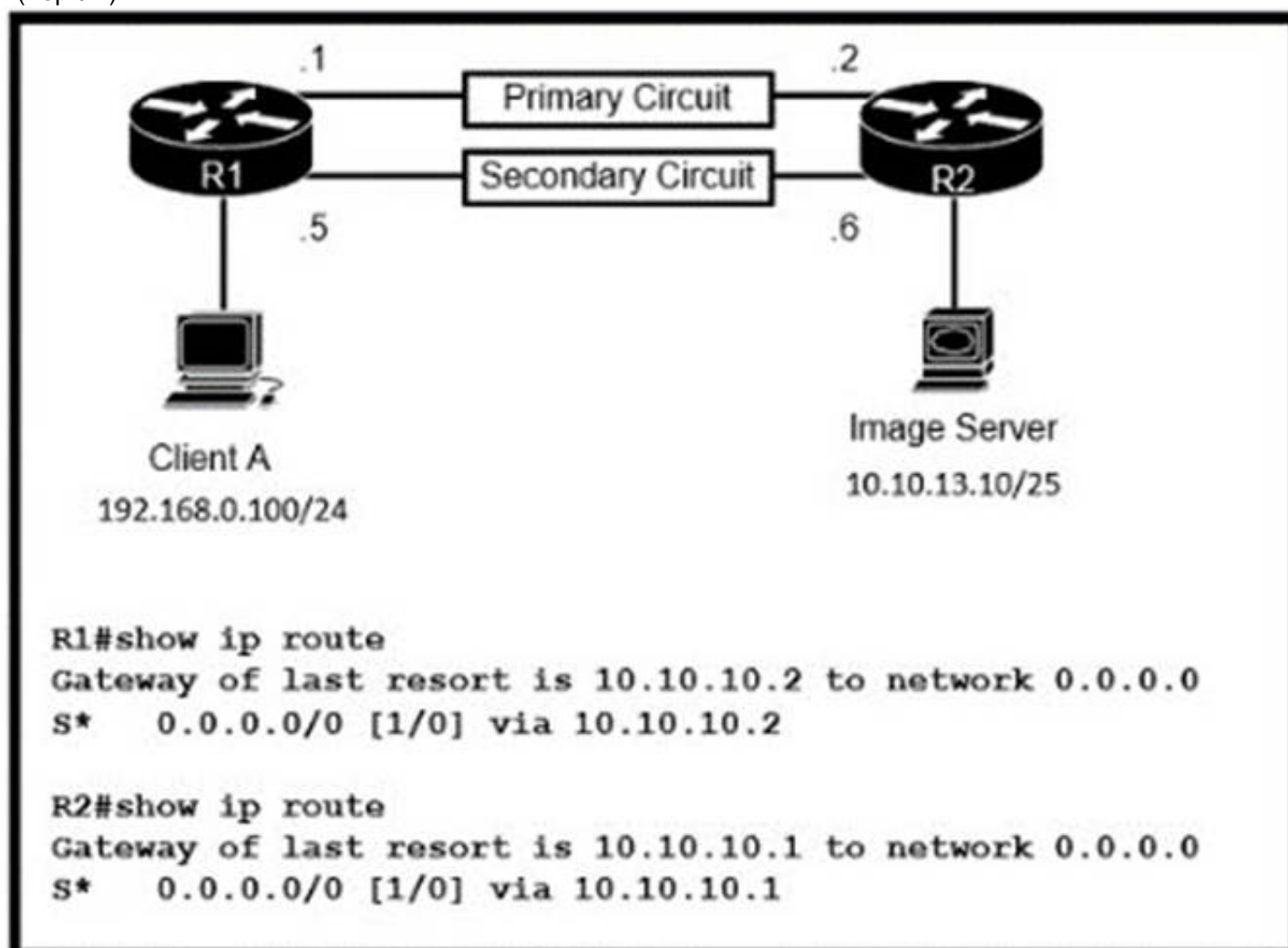
Answer: D

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 622

- (Topic 1)



Refer to the exhibit Routers R1 and R2 have been configured with their respective LAN interfaces The two circuits are operational and reachable across WAN Which command set

establishes failover redundancy if the primary circuit goes down?

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

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

Answer: B

NEW QUESTION 627

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