200-301 Dumps

Cisco Certified Network Associate

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

NEW QUESTION 1
- (Exam Topic 2)
Refer to the exhibit.

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

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

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

Answer: C

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

NEW QUESTION 2
- (Exam Topic 2)
Refer to Exhibit.

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

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

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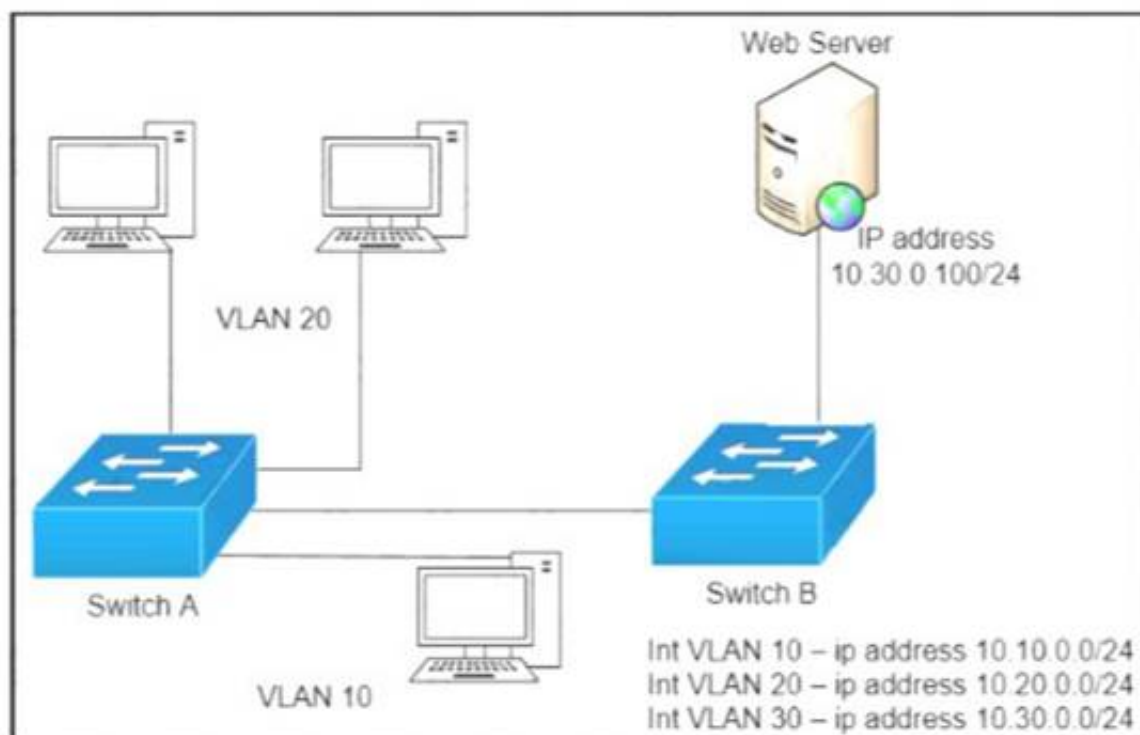
Answer: C

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

NEW QUESTION 3
- (Exam Topic 2)
Refer to the exhibit.

A network engineer must block access for all computers on VLAN 20 to the web server via HTTP All other computers must be able to access the web server
Which configuration when applied to switch A accomplishes this task?

```
config t
ip access-list extended wwwblock
deny tcp any host 10.30.0.100 eq 80
int vlan 10
ip access-group wwwblock in
```

```
config t
ip access-list extended wwwblock
deny tcp any host 10.30.0.100 eq 80
permit ip any any
int vlan 20
ip access-group wwwblock in
```

```
config t
ip access-list extended wwwblock
permit ip any any
deny tcp any host 10.30.0.100 eq 80
int vlan 30
ip access-group wwwblock in
```

```
config t
ip access-list extended wwwblock
permit ip any any
deny tcp any host 10.30.0.100 eq 80
int vlan 20
ip access-group wwwblock in
```

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

Answer: B

NEW QUESTION 4
- (Exam 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 5
- (Exam 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 6
- (Exam Topic 2)
Drag and drop to the characteristics of networking from the left onto the correct networking types on the right.

A. Mastered
B. Not Mastered

Answer: A

Explanation:

NEW QUESTION 7
- (Exam Topic 2)
Which set of action satisfy the requirement for multifactor authentication?

A. The user swipes a key fob, then clicks through an email link
B. The user enters a user name and password, and then clicks a notification in an authentication app on a mobile device
C. The user enters a PIN into an RSA token, and then enters the displayed RSA key on a login screen
D. The user enters a user name and password and then re-enters the credentials on a second screen

Answer: B

Explanation:
This is an example of how two-factor authentication (2FA) works:1. The user logs in to the website or service with their username and password.2. The password is validated by an authentication server and, if correct, the user becomes eligible for the second factor.3. The authentication server sends a unique code to the user's second-factor method (such as a smartphone app).4. The user confirms their identity by providing the additional authentication for their second-factor method.

NEW QUESTION 8
- (Exam 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 9
- (Exam 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 10
- (Exam 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 10
- (Exam Topic 2)
Which protocol requires authentication to transfer a backup configuration file from a router to a remote server?

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

Answer: B

NEW QUESTION 12
- (Exam Topic 2)
Which configuration management mechanism uses TCP port 22 by default when communicating with managed nodes?

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

Answer: A

NEW QUESTION 13
- (Exam 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 15
- (Exam Topic 1)
An engineer is configuring data and voice services to pass through the same port. The designated switch interface fastethernet0/1 must transmit packets using the same priority for data when they are received from the access port of the IP phone. Which configuration must be used?
A)

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

B)

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

C)

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

D)

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

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

Answer: A

NEW QUESTION 20
- (Exam Topic 1)
Which command is used to specify the delay time in seconds for LLDP to initialize on any interface?

A. lldp timer
B. lldp holdtimt
C. lldp reinit
D. lldp tlv-select

Answer: C

Explanation:
Reference:
https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst2960/software/release/12-2_37_ey/configuration/gui
+ lldp holdtime seconds: Specify the amount of time a receiving device should hold the information from your device before discarding it+ lldp reinit delay: Specify the delay time in seconds for LLDP to initialize on an interface+ lldp timer rate: Set the sending frequency of LLDP updates in seconds

NEW QUESTION 21
- (Exam 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 24
- (Exam Topic 1)
If a notice-level messaging is sent to a syslog server, which event has occurred?

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

Answer: C

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

NEW QUESTION 25
- (Exam Topic 1)
Which device controls the forwarding of authentication requests for users when connecting to the network using a lightweight access point?

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

Answer: B

NEW QUESTION 27
- (Exam 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 31
- (Exam 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 35
- (Exam 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 36
- (Exam Topic 1)
What criteria is used first during me root port selection process?

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

Answer: B

NEW QUESTION 37
- (Exam Topic 1)
How do TCP and UDP differ in the way they provide reliability for delivery of packets?

A. TCP is a connectionless protocol that does not provide reliable delivery of data, UDP is a connection-oriented protocol that uses sequencing to provide reliable delivery.
B. TCP does not guarantee delivery or error checking to ensure that there is no corruption of data UDP provides message acknowledgement and retransmits data if lost.
C. TCP provides flow control to avoid overwhelming a receiver by sending too many packets at once, UDP sends packets to the receiver in a continuous stream without checking for sequencing
D. TCP uses windowing to deliver packets reliably; UDP provides reliable message transfer between hosts by establishing a three-way handshake

Answer: C

NEW QUESTION 42
- (Exam Topic 1)
What are network endpoints?
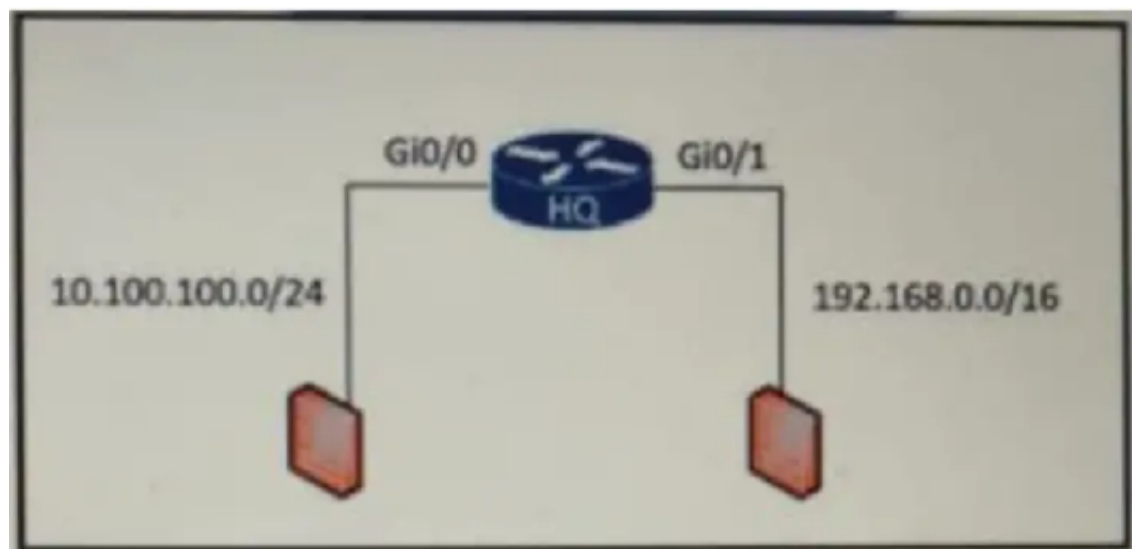
A. act as routers to connect a user to the service prowler network
B. a threat to the network if they are compromised
C. support inter-VLAN connectivity
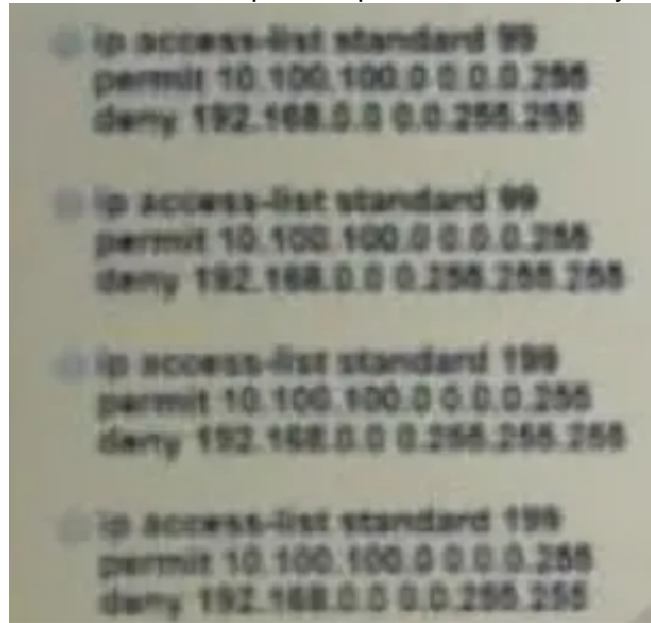D. enforce policies for campus-wide traffic going to the internet

Answer: B

NEW QUESTION 47
- (Exam 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?

ip access-list standard 99
permit 10.100.100.0 0.0.0.256
deny 192.168.0.0 0.0.256.255

ip access-list standard 99
permit 10.100.100.0 0.0.0.256
deny 192.168.0.0 0.256.255.255

ip access-list standard 199
permit 10.100.100.0 0.0.0.256
deny 192.168.0.0 0.256.255.255

ip access-list standard 199
permit 10.100.100.0 0.0.0.256
deny 192.168.0.0 0.0.256.255

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

Answer: A

NEW QUESTION 51
- (Exam Topic 1)
Refer to the exhibit.

```
R1#show ip route
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route
Gateway of last resort is 192.168.30.10 to network 0.0.0.0
       192.168.30.0/29 is subnetted, 2 subnets
C         192.168.30.0 is directly connected, FastEthernet0/0
C         192.168.30.8 is directly connected, Serial0/0.1
       192.168.10.0/24 is variably subnetted, 2 subnets, 2 masks
O IA      192.168.10.32/28 [110/193] via 192.168.30.10, 00:18:49, Serial0/0.1
O IA      192.168.10.0/27 [110/192] via 192.168.30.10, 00:18:49, Serial0/0.1
       192.168.20.0/30 is subnetted, 1 subnets
O IA      192.168.20.0 [110/128] via 192.168.30.10, 00:18:49, Serial0/0.1
       192.168.50.0/32 is subnetted, 1 subnets
C         192.168.50.1 is directly connected, Loopback0
O*IA 0.0.0.0/0 [110/84] via 192.168.30.10, 00:10:36, Serial0/0.1
```
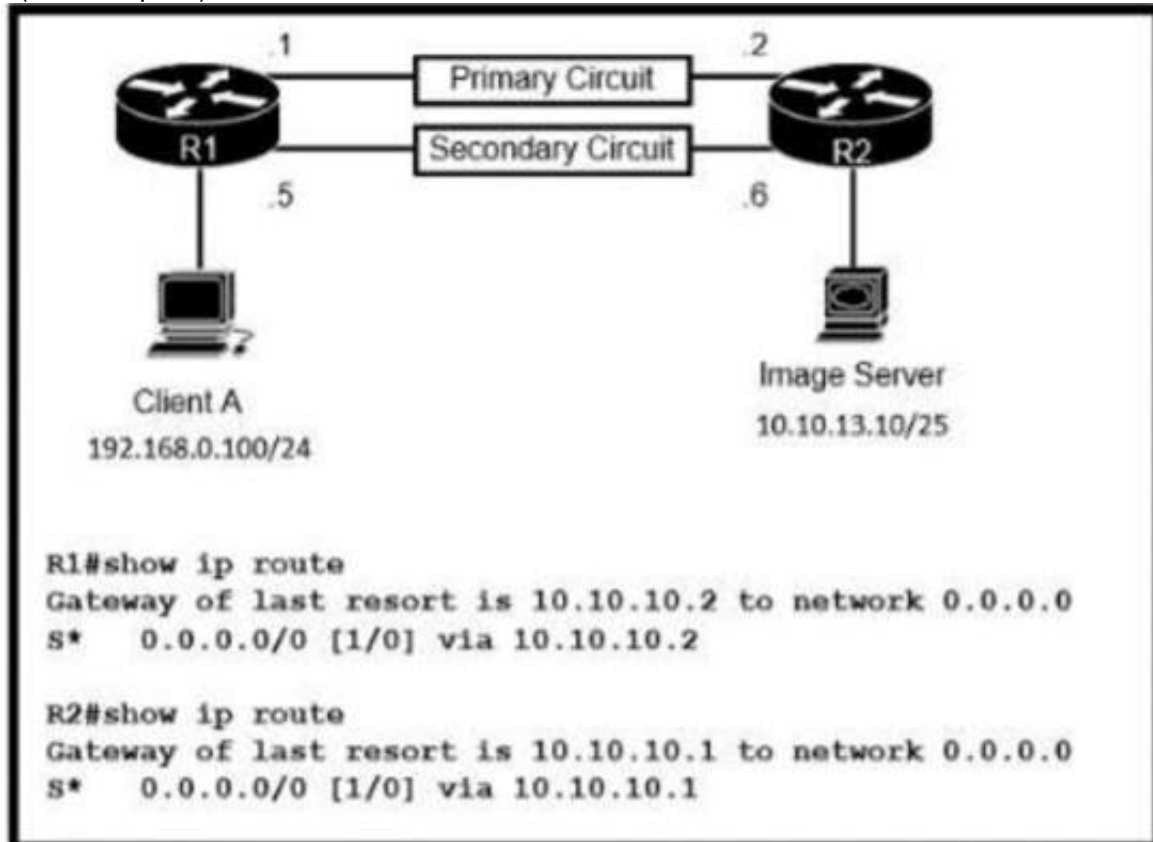
What is the metric of the route to the 192.168.10.33/28 subnet?

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

Answer: E

NEW QUESTION 53
- (Exam Topic 1)


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

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

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 56
- (Exam Topic 1)
How does HSRP provide first hop redundancy?

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

Answer: D

Explanation:
https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipapp_fhrp/configuration/xe-16/fhp-xe-16-book/fhp-hsrp-mg

NEW QUESTION 57
- (Exam Topic 1)
Which 802.11 frame type is association response?

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

Answer: A

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

NEW QUESTION 58
- (Exam 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 62
- (Exam Topic 1)
What is the difference regarding reliability and communication type between TCP and UDP?

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

Answer: A

NEW QUESTION 67
- (Exam Topic 1)
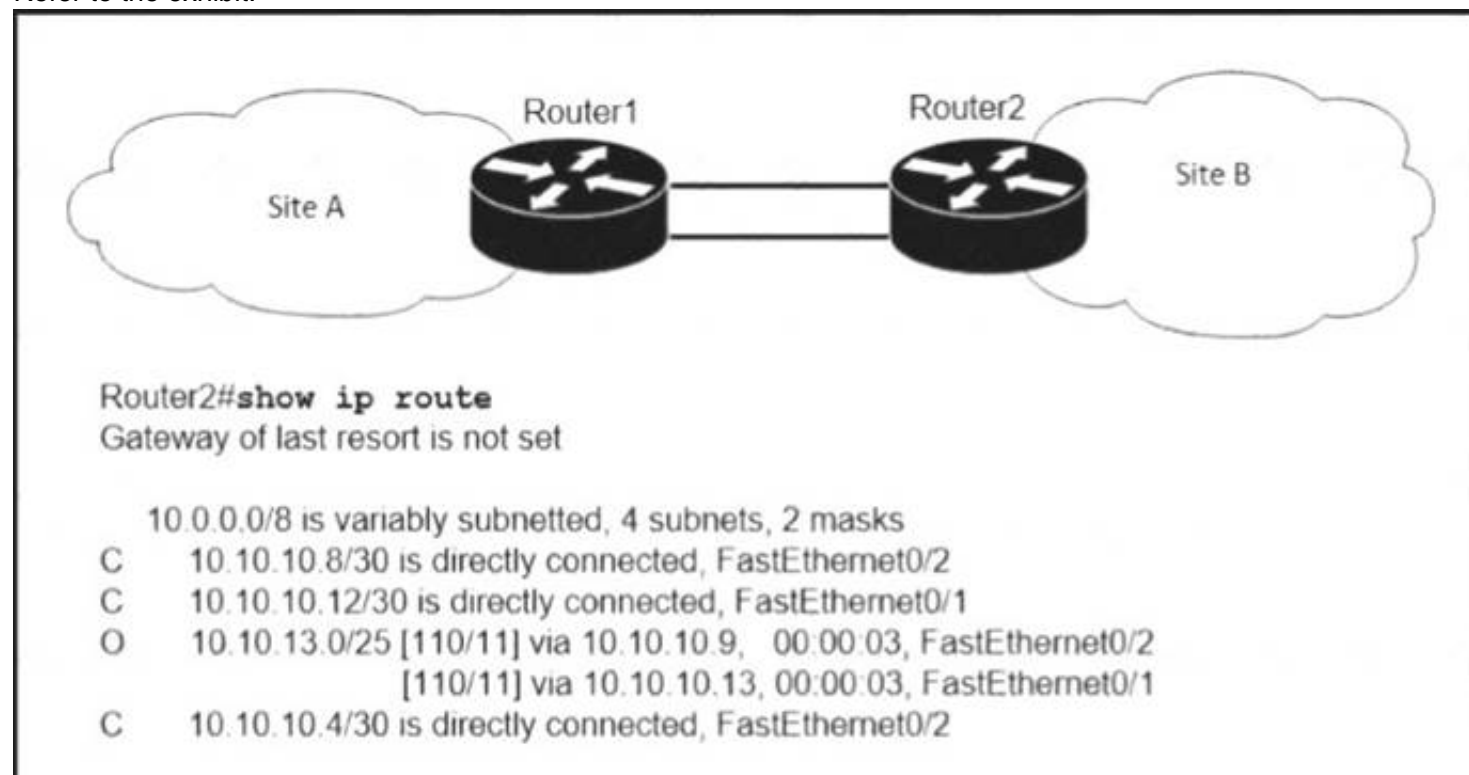What are two roles of Domain Name Services (DNS)? (Choose Two)

A. builds a flat structure of DNS names for more efficient IP operations
B. encrypts network Traffic as it travels across a WAN by default
C. improves security by protecting IP addresses under Fully Qualified Domain Names (FQDNs)
D. enables applications to identify resources by name instead of IP address
E. allows a single host name to be shared across more than one IP address

Answer: DE

NEW QUESTION 70
- (Exam 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 FaO/2.
D. It sends packets out of interface Fa0/1.

Answer: B

NEW QUESTION 75
- (Exam Topic 1)
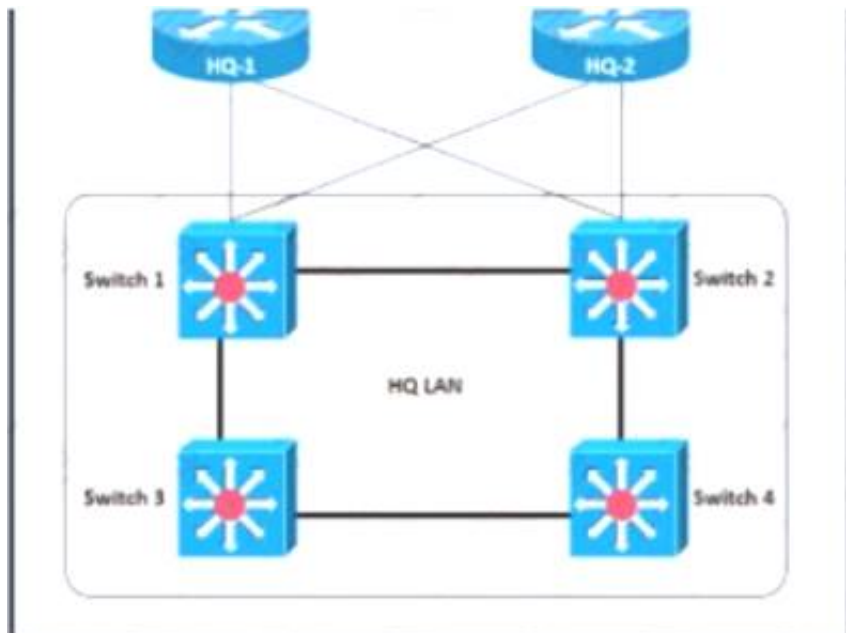What is a benefit of using a Cisco Wireless LAN Controller?

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 77
- (Exam 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
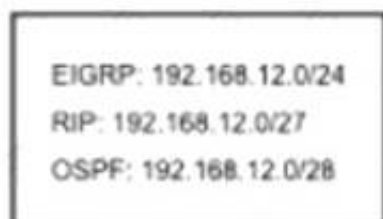D. Switch 4

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 avalable, the MAC address is used to determine the root bridge. Because S3 has the lowest MAC address, S3 becomes the root bridge.

NEW QUESTION 78
- (Exam Topic 1)
Refer to the exhibit.

EIGRP: 192.168.12.0/24
RIP: 192.168.12.0/27
OSPF: 192.168.12.0/28

How does the router manage traffic to 192.168.12.16?

A. It selects the RIP route because it has the longest prefix inclusive of the destination address.
B. It chooses the OSPF route because it has the longest prefix inclusive of the destination address.
C. it load-balances traffic between all three routes
D. It chooses the EIGRP route because it has the lowest administrative distance

Answer: A

NEW QUESTION 83
- (Exam 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 86
- (Exam Topic 1)
What is a network appliance that checks the state of a packet to determine whether the packet is legitimate?

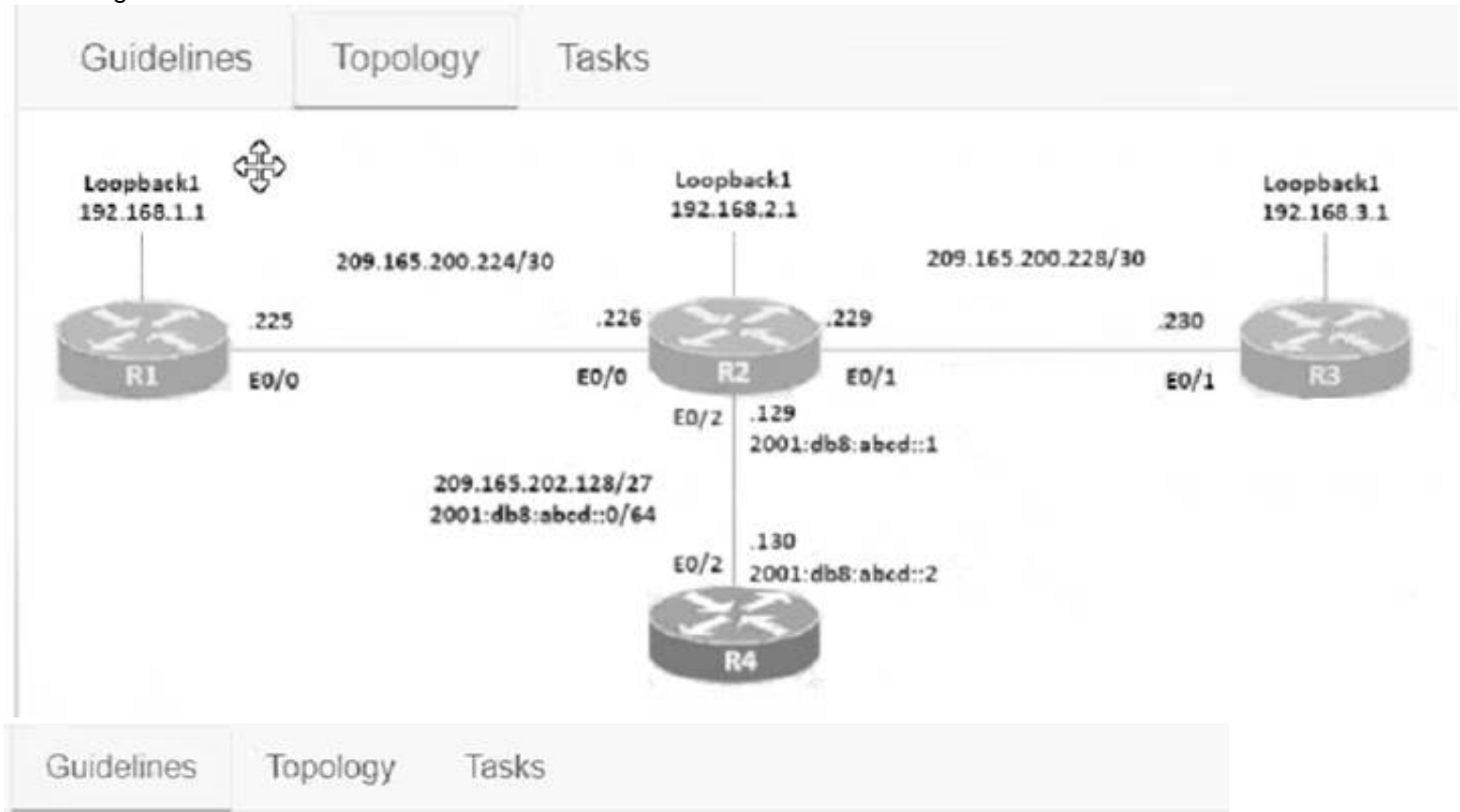A. Layer 2 switch
B. load balancer

C. firewall
D. LAN controller

Answer: C

NEW QUESTION 88
- (Exam Topic 5)
Connectivity between four routers has been established. IP connectivity must be configured in the order presented to complete the implementation. No dynamic routing protocols are included.
* 1. Configure static routing using host routes to establish connectivity from router R3 to the router R1 Loopback address using the source IP of 209.165.200.230.
* 2. Configure an IPv4 default route on router R2 destined for router R4.
* 3. Configure an IPv6 default router on router R2 destined for router R4.

| Guidelines | Topology | Tasks |

```
Loopback1                    Loopback1                         Loopback1
192.168.1.1                  192.168.2.1                       192.168.3.1
          209.165.200.224/30              209.165.200.228/30
     .225                .226         .229              .230
   [R1]                    [R2]                          [R3]
     E0/0                E0/0         E0/1              E0/1
                              E0/2   .129
                                     2001:db8:abcd::1
          209.165.202.128/27
          2001:db8:abcd::0/64
                              E0/2   .130
                                     2001:db8:abcd::2
                                   [R4]
```

| Guidelines | Topology | Tasks |

Guidelines

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

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

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Answer as below configuration:
* 1.- on R3
config terminal
ip route 192.168.1.1 255.255.255.255 209.165.200.229
end
copy running start
* 2.- on R2
config terminal
ip route 0.0.0.0 0.0.0.0 209.165.202.130
end
copy running start
* 3.- on R2
config terminal

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

NEW QUESTION 93
- (Exam Topic 5)
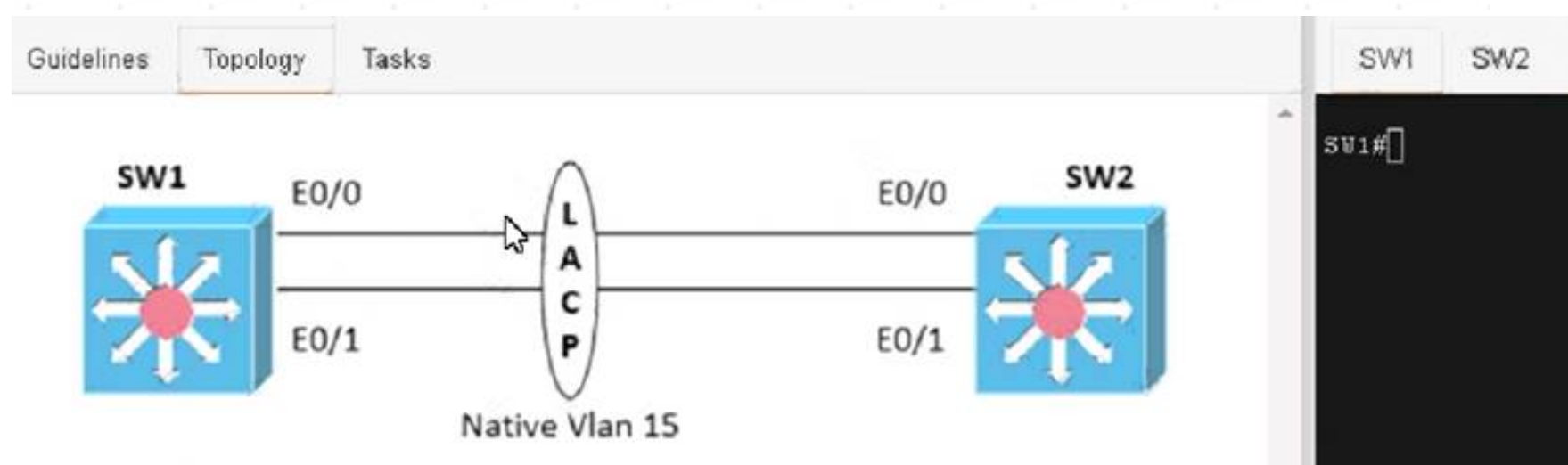Physical connectivity is implemented between the two Layer 2 switches, and the network connectivity between them must be configured
* 1. Configure an LACP EtherChannel and number it as 1; configure it between switches SW1 and SVV2 using interfaces Ethernet0/0 and Ethernet0/1 on both sides. The LACP mode must match on both ends
* 2. Configure the EtherChannel as a trunk link.
* 3. Configure the trunk link with 802.1 q tags.
* 4. Configure the native VLAN of the EtherChannel as VLAN 15.

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Answer as below configuration:
On SW1:
conf terminal vlan 15
exit
interface range eth0/0 - 1 channel-group 1 mode active exit
interface port-channel 1
switchport trunk encapsulation dot1q switchport mode trunk
switchport trunk native vlan 15 end
copy run start on SW2: conf terminal vlan 15
exit
interface range eth0/0 - 1 channel-group 1 mode active exit
interface port-channel 1
switchport trunk encapsulation dot1q switchport mode trunk
switchport trunk native vlan 15 end
copy run start

NEW QUESTION 96
- (Exam Topic 4)
A network engineer is implementing a corporate SSID for WPA3-Personal security with a PSK. Which encryption cipher must be configured?

A. GCMP2S6
B. GCMP128
C. CCMP256

D. CCMP128

Answer: D

NEW QUESTION 99
- (Exam Topic 4)
Drag and drop the characteristics of northbound APIs from the left onto any position on the right. Not all characteristics are used.

supports automation
communicates between the SDN controller and the application plane
supports data sharing between systems
communicates between the SDN controller and the data plane
supports network virtualization protocols
supports REST-based requirements
uses OpenFlow to interface between the data and control planes

A. Mastered
B. Not Mastered

Answer: A

Explanation:

Left	Right
supports automation	supports data sharing between systems
communicates between the SDN controller and the application plane	communicates between the SDN controller and the data plane
supports data sharing between systems	supports network virtualization protocols
communicates between the SDN controller and the data plane	supports REST-based requirements
supports network virtualization protocols	
supports REST-based requirements	
uses OpenFlow to interface between the data and control planes	

NEW QUESTION 101
- (Exam Topic 4)
Drag and drop the statements about AAA services firm the left onto the corresponding AAA services on the right Not all options are used.

	Accounting
It grants access to network assets, such as FTP servers.	
It limits the services available to a user.	
It performs user validation via TACACS+.	**Authentication**
It records the duration of each connection.	
It supports User Access Reporting.	
It verifies "who you are".	

A. Mastered
B. Not Mastered

Answer: A

Explanation:
1&6 authentication
2&4 authorization

NEW QUESTION 104
- (Exam Topic 4)
Drag and drop the virtualization concepts from the left onto the matching statements on the right.

guest operating system	An operating system instance that is decoupled from the server hardware.
host operating system	Each core can run more than one process simultaneously.
hypervisor	Runs on a physical server, manages, and allocates the physical resources.
multithreading	The software that manages the basic functions of the physical hardware.
virtual machine	The software that manages the basic functions of the vital machine.

A. Mastered
B. Not Mastered

Answer: A

Explanation:

guest operating system	virtual machine
host operating system	multithreading
hypervisor	hypervisor
multithreading	guest operating system
virtual machine	host operating system

NEW QUESTION 108
- (Exam Topic 4)

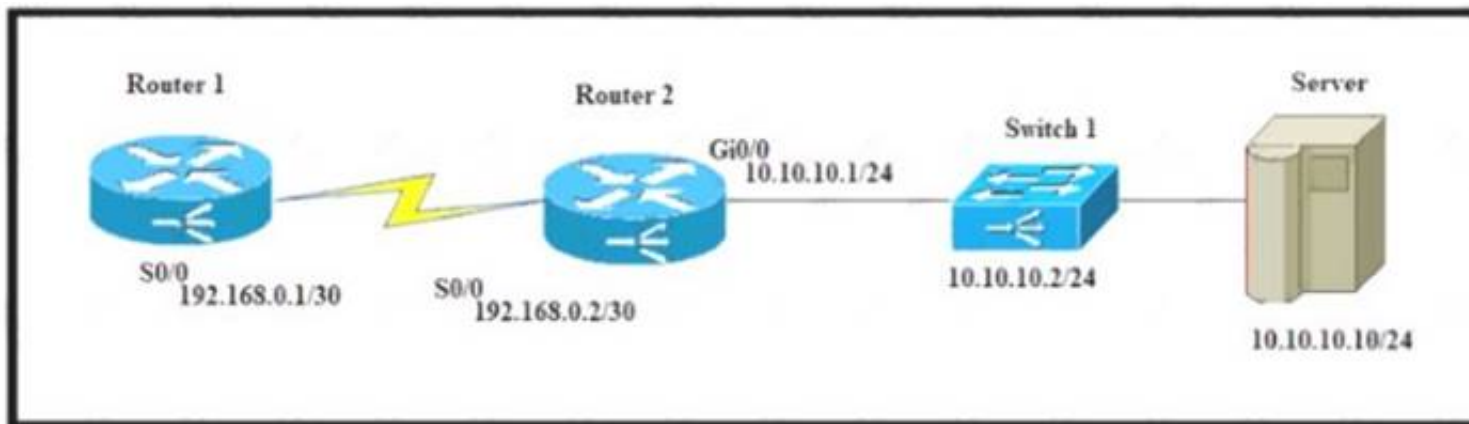Which two transport layer protocols carry syslog messages? (Choose two.)

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

Answer: AD

NEW QUESTION 112
- (Exam Topic 4)
Refer to the exhibit.

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

A. R1(conftg)#lp route 10.10.10.0 255.255.255.0 192.168.0.2
B. R1(Config)#lp route 10.10.10.10 265.255.255.255 192 168.0.2
C. R1(config)#ip route 192.168.0.2 255.255.255.255 10.10.10.10
D. R1(config)3|p route 0.0.0.0 0.0 0.0 192 168.0.2

Answer: B

NEW QUESTION 113
- (Exam Topic 4)
Drag and drop the IPv6 address types from the left onto their description on the right.

A. Mastered
B. Not Mastered

Answer: A

Explanation:

NEW QUESTION 117
- (Exam Topic 4)
Which is a fact related to FTP?

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

Answer: D

NEW QUESTION 121
- (Exam Topic 4)
Which 802.11 frame type is Association Response?

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

Answer: A

NEW QUESTION 126
- (Exam Topic 4)
Drag and drop the Ansible features from the left to the right Not all features are used.

A. Mastered
B. Not Mastered

Answer: A

Explanation:

NEW QUESTION 129
- (Exam Topic 4)
What are two differences between WPA2 and WPA3 wireless security? (Choose two.)

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

Answer: CE

NEW QUESTION 134
- (Exam Topic 4)
When a switch receives a frame for an unknown destination MAC address, how is the frame handled?

A. broadcast to all ports on the switch
B. flooded to all ports except the origination port
C. forwarded to the first available port
D. inspected and dropped by the switch

Answer: D

NEW QUESTION 135
- (Exam Topic 4)
Refer to the exhibit.

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

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

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

Answer: B

NEW QUESTION 140
- (Exam Topic 4)
By default, how long will the switch continue to know a workstation MAC address after the workstation stops sending traffic?

A. 200 seconds
B. 300 seconds
C. 600 seconds
D. 900 seconds

Answer: B

NEW QUESTION 141
- (Exam Topic 4)
Drag and drop the wireless architecture benefits from the left onto the architecture types on the right.

Drag and drop the wireless architecture benefits from the left onto the architecture types on the right.

	Split-MAC
Appropriate for a small-business environment.	
Work is divided between the access point and the controller.	
The access points transmit beacon frames.	
Supports per device configuration and management.	
	Autonomous
Uses the CAPWAP tunneling protocol.	

A. Mastered
B. Not Mastered

Answer: A

Explanation:

Drag and drop the wireless architecture benefits from the left onto the architecture types on the right.

	Split-MAC
Appropriate for a small-business environment.	Work is divided between the access point and the controller.
Work is divided between the access point and the controller.	Supports per device configuration and management.
The access points transmit beacon frames.	Uses the CAPWAP tunneling protocol.
Supports per device configuration and management.	Autonomous
Uses the CAPWAP tunneling protocol.	The access points transmit beacon frames.
	Appropriate for a small-business environment.

NEW QUESTION 143
- (Exam Topic 4)
Refer to Itie exhibit

```
SW# conf t
SW(config)#interface gigabitEthernet0/1
SW(config-if)#switchport mode access
SW(config-if)#switchport port-security
SW(config-if)#
```

A network engineer started to configure port security on a new switch. These requirements must be met:
* MAC addresses must be learned dynamically
* Log messages must be generated without disabling the interface when unwanted traffic is seen Which two commands must be configured to complete this task"? (Choose two)

A. SW(ccnfig-if)=switchport port-security mac-address sticky
B. SW(confKj-if)=switchport port-security violation restrict
C. SW(config.if)sswitchport port-security mac-address 0010.7B84.45E6
D. SW(config-if)aswitchport port-security maximum 2
E. SW(ccnfig-if)=switchport port-security violation shutdown

Answer: C

NEW QUESTION 146
- (Exam Topic 4)
Drag and drop the TCP or UDP details from the left onto their corresponding protocols on the right.

used to reliably share files between devices	TCP
appropriate for streaming operations with minimal latency	
provides best-effort service	UDP
supports reliable data transmission	

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Graphical user interface, application Description automatically generated

NEW QUESTION 151
- (Exam Topic 4)
Refer to the exhibit.

Rooter R1 is added to the network and configured with tie 10 0 0 64/26 and 10.0.20.0/24 subnets However traffic destined for the LAN on R3 is not access. Which command when executed on R1 defines a tunic route to reach the R3 LAN?
A)

ip route 10.0.15.0 255.255.255.192 10.0.20.1

B)

ip route 10.0.15.0 255.255.255.0 10.0.20.1

C)

ip route 10.0.0.64 255.255.255.192 10.0.20.3

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

Answer: C

NEW QUESTION 156
- (Exam Topic 4)
Refer to the exhibit.

```
SW1#show run
Building configuration...
!
hostname SW1
!
ip domain-name CCNA-test
!
username CCNA privilege 1 password 0 cisco123
!
interface FastEthernet0/1
 switchport access vlan 10
!
interface Vlan10
 ip address 192.168.1.2 255.255.255.0
!
line vty 0 4
 login local
 transport input telnet
line vty 5 15
 login local
 transport input telnet

SW1#show crypto key mypubkey rsa
% Key pair was generated at: 0:1:23 UTC Mar 1 2020
Key name: SW1.CCNA-test
```

An engineer is updating the management access configuration of switch SW1 to allow secured, encrypted remote configuration. Which two commands or command sequences must the engineer apply to the switch? (Choose two.)

A. SW1(config)#enable secret ccnaTest123
B. SW1(config)#username NEW secret R3mote123
C. SW1(config)#line vty 0 15 SW1(config-line)#transport input ssh
D. SW1(config)# crypto key generate rsa
E. SW1(config)# interface f0/1 SW1(confif-if)# switchport mode trunk

Answer: CD

NEW QUESTION 157
- (Exam Topic 4)
Refer to the exhibit.
How does router R1 handle traffic to the 172.16.1.4/30 subnet?

A. It sends all traffic over the path via 172.16.9.5 using 172.16.4.4 as a backup.
B. It sends all traffic over the path via 10.0.1.100.
C. It load-balances traffic over 172.16.9.5 and 172.16.4.4.
D. It sends all traffic over the path via 172.16.4.4.

Answer: C

NEW QUESTION 162
- (Exam Topic 4)
What is the purpose of configuring different levels of syslog for different devices on the network?

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

Answer: B

NEW QUESTION 164
- (Exam Topic 4)
Refer to the exhibit.

```
{
        "Test_Questions" :  [
                        "Automation",
                        "Configuration",
        ],
        "Test_Exam_Level" :   [
                        "CCNA",
                        "CCNP",
        ],
        "Test_Response" :   [
                        "Correct",
                        "Incorrect",
        ],
}
```
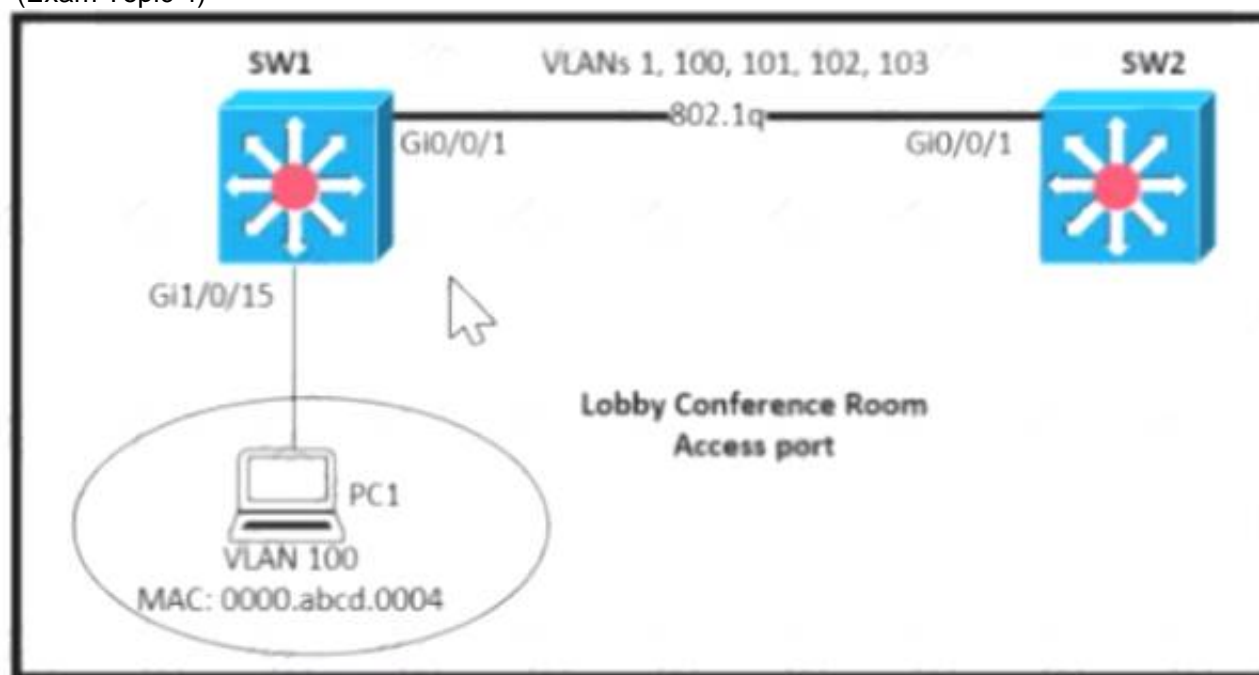
How many objects, Keys and JSON list values are present?

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

Answer: C

NEW QUESTION 168
- (Exam Topic 4)

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

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

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

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

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

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

Answer: B

NEW QUESTION 172
- (Exam Topic 4)
Which set of 2.4 GHz nonoverlapping wireless channels is standard in the United States?

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

Answer: D

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

NEW QUESTION 175
- (Exam Topic 4)
What is a characteristic of RSA?

A. It uses preshared keys for encryption
B. It requires both sides to have identical keys
C. It is a private-key encryption algorithm
D. It is a public-key cryptosystem

Answer: D

NEW QUESTION 177
- (Exam Topic 4)
What is a reason to implement IPv4 private addressing?

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

Answer: D

NEW QUESTION 181
- (Exam Topic 4)
Drag and drop the IPv6 addresses from the left onto the corresponding address types on the right.

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Graphical user interface Description automatically generated

NEW QUESTION 183
- (Exam Topic 4)
How do UTP and STP cables compare?

A. STP cables are cheaper to procure and easier to install and UTP cables are more expensive and harder to install.
B. UTP cables are less prone to crosstalk and interference and STP cables are more prone to crosstalk and interference.
C. UTP cables provide taster and more reliable data transfer rates and STP cables are slower and less reliable.
D. STP cables are shielded and protect against electromagnetic interference and UTP lacks the same protection against electromagnetic interference.

Answer: D

NEW QUESTION 186
- (Exam Topic 4)
Which type of port is used to connect lo the wired network when an autonomous AP maps two VLANs to its WLANs?

A. LAG

B. EtherChannel
C. trunk
D. access

Answer: C

NEW QUESTION 188
- (Exam Topic 4)
Drag and drop the device behaviors from the left onto the matching HSRP slate on the right.

has heard from the neighbor device and is receiving hello packets	Active
is forwarding packets	Learn
is ready to forward packets if the device that is currently forwarding packets fails	Listen
is transmitting and receiving hello packets	Speak
is waiting to hear from the neighbor device	Standby

A. Mastered
B. Not Mastered

Answer: A

Explanation:

has heard from the neighbor device and is receiving hello packets	is forwarding packets
is forwarding packets	has heard from the neighbor device and is receiving hello packets
is ready to forward packets if the device that is currently forwarding packets fails	is waiting to hear from the neighbor device
is transmitting and receiving hello packets	is transmitting and receiving hello packets
is waiting to hear from the neighbor device	is ready to forward packets if the device that is currently forwarding packets fails

NEW QUESTION 191
- (Exam Topic 4)
Drag and drop the Wi-Fi terms from the left onto the descriptions on the right.

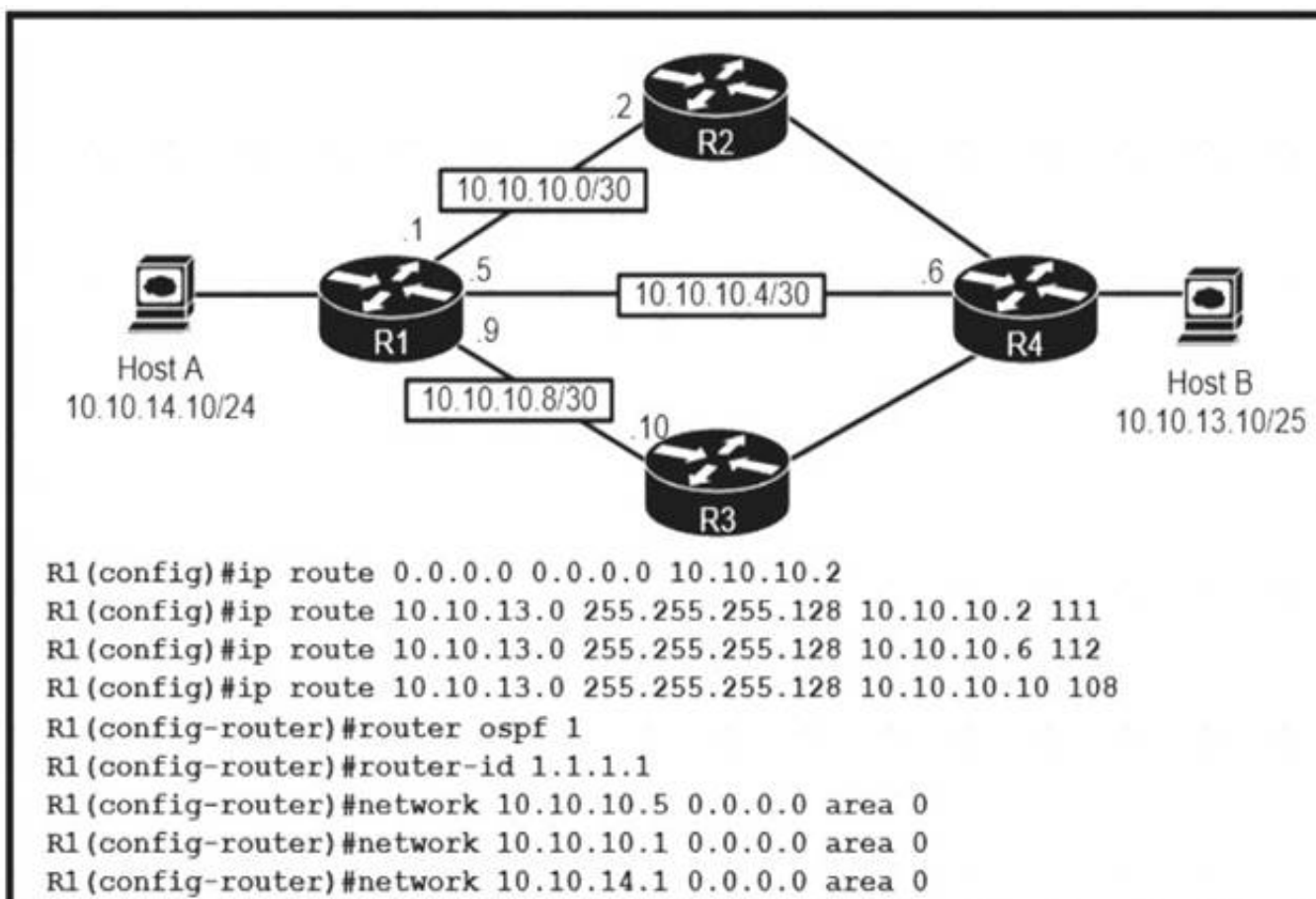|	
distribution system	Wi-Fi option in which cells from different access points are linked together
extended service set	Wi-Fi option that enables two or more clients to communicate directly without a central access point
independent basic service set	Wi-Fi option based around one or more access points
infrastructure mode	alphanumeric text string that identifies a wireless network
SSID	entire wireless cell of an access point and the linkage to the wired network

A. Mastered
B. Not Mastered

Answer: A

Explanation:

distribution system	distribution system
extended service set	independent basic service set
independent basic service set	extended service set
infrastructure mode	SSID
SSID	infrastructure mode

NEW QUESTION 192
- (Exam Topic 4)
Refer to the exhibit.

```
                              .2
                             R2
              10.10.10.0/30
           .1
              .5      10.10.10.4/30      .6
  Host A   ┌──────┐                    ┌──────┐   Host B
10.10.14.10/24  R1  .9                   R4    10.10.13.10/25
              10.10.10.8/30
                            .10
                             R3
```

```
R1(config)#ip route 0.0.0.0 0.0.0.0 10.10.10.2
R1(config)#ip route 10.10.13.0 255.255.255.128 10.10.10.2 111
R1(config)#ip route 10.10.13.0 255.255.255.128 10.10.10.6 112
R1(config)#ip route 10.10.13.0 255.255.255.128 10.10.10.10 108
R1(config-router)#router ospf 1
R1(config-router)#router-id 1.1.1.1
R1(config-router)#network 10.10.10.5 0.0.0.0 area 0
R1(config-router)#network 10.10.10.1 0.0.0.0 area 0
R1(config-router)#network 10.10.14.1 0.0.0.0 area 0
```
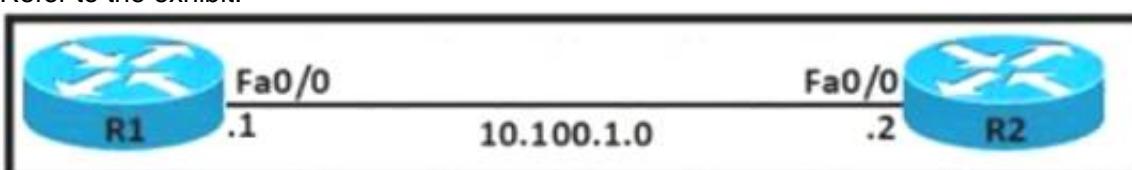
R1 has just received a packet from host A that is destined to host B. Which route in the routing table is used by R1 to reac B?

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

Answer: D

NEW QUESTION 195
- (Exam Topic 4)
Refer to the exhibit.

```
┌──────────────────────────────────────────────────────┐
│  R1   Fa0/0                        Fa0/0   R2          │
│       .1        10.100.1.0           .2               │
└──────────────────────────────────────────────────────┘
```

An OSPF neighbor relationship must be configured using these guidelines:
• R1 is only permitted to establish a neighbor with R2

• R1 will never participate in DR elections
• R1 will use a router-id of 101.1.1. Which configuration must be used?

A)
```
interface Loopback0
   ip address 10.1.1.1 255.255.255.255

interface FastEthernet0/0
   ip address 10.100.1.1 255.255.255.252
   ip ospf priority 100
   ip access-group 102 in

router ospf 10
   log-adjacency-changes
   network 10.1.1.1 0.0.0.0 area 0
   network 10.100.1.0 0.0.0.3 area 0
   ospf router-id 10.1.1.1

access-list 102 permit 88 host 10.100.1.2 host 224.0.0.5
access-list 102 deny 88 any any
access-list 102 permit ip any any
```

B)
```
interface Loopback0
   ip address 10.1.1.1 255.255.255.255

interface FastEthernet0/0
   ip address 10.100.1.1 255.255.255.252
   ip ospf priority 0
   ip access-group 102 in

router ospf 10
   log-adjacency-changes
   network 10.1.1.1 0.0.0.0 area 0
   network 10.100.1.0 0.0.0.3 area 0
   router-id 10.1.1.1

access-list 102 permit 88 host 10.100.1.2 host 224.0.0.5
access-list 102 deny 88 any any
access-list 102 permit ip any any
```

C)
```
interface FastEthernet0/0
   ip address 10.100.1.1 255.255.255.252
   ip ospf priority 100
   ip access-group 102 in

router ospf 10
   log-adjacency-changes
   network 10.1.1.1 0.0.0.0 area 0
   network 10.100.1.0 0.0.0.3 area 0
   ospf router-id 10.1.1.1

access-list 102 permit 89 host 10.100.1.2 host 224.0.0.5
access-list 102 deny 89 any any
access-list 102 permit ip any any
```

D)
```
interface FastEthernet0/0
   ip address 10.100.1.1 255.255.255.252
   ip ospf priority 0
   ip access-group 102 in

router ospf 10
   log-adjacency-changes
   network 10.1.1.1 0.0.0.0 area 0
   network 10.100.1.0 0.0.0.3 area 0
   router-id 10.1.1.1

access-list 102 permit 89 host 10.100.1.2 host 224.0.0.5
access-list 102 deny 89 any any
access-list 102 permit ip any any
```

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

Answer: C

NEW QUESTION 199
- (Exam Topic 4)
Refer to the exhibit.

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

```
Sw1#show mac-address table
      Mac Address Table
-------------------------------------------
Vlan  Mac Address        Type      Ports
-------  --------------------  -------  -------
2     000c.859c.bb7b  DYNAMIC  e0/1
3     000c.859c.bb7b  DYNAMIC  e0/1
2     0010.11dc.3e91  DYNAMIC  e0/2
3     0010.11dc.3e91  DYNAMIC  e0/2
2     0043.49d4.c383  DYNAMIC  e0/3
Sw1#
```

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

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

Answer: C

NEW QUESTION 202
- (Exam Topic 4)
A network analyst is tasked with configuring the date and time on a router using EXEC mode. The date must be set to January 1. 2020 and the time must be set to 12:00 am. Which command should be used?

A. clock summer-time recurring
B. clock timezone
C. clock summer-time date
D. clock set

Answer: D

NEW QUESTION 207
- (Exam Topic 4)
Which remote access protocol provides unsecured remote CLI access?

A. console
B. Telnet
C. Bash
D. SSH

Answer: B

NEW QUESTION 211
- (Exam Topic 4)
Drag and drop each characteristic of device-management technologies from the left onto the deployment type on the right.

	Cisco DNA Center
relies on per-device management	
uses individual software management	
orchestrates background device configuration	

	Traditional
supports open APIs	
provides greater flexibility for custom and non-standard configurations	
supports centralized software management	

A. Mastered
B. Not Mastered

Answer: A

Explanation:
A picture containing diagram Description automatically generated

NEW QUESTION 214
- (Exam Topic 4)
To improve corporate security, an organization is planning to implement badge authentication to limit access to the data center. Which element of a security program is being deployed?
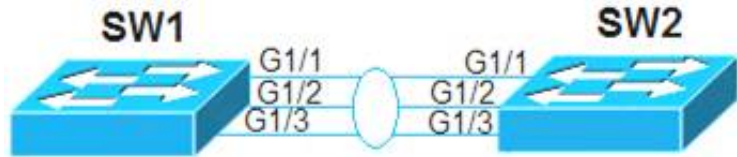
A. user training
B. user awareness
C. vulnerability verification
D. physical access control

Answer: D

NEW QUESTION 217
- (Exam Topic 4)
Refer to the exhibit.

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

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

Answer: A

NEW QUESTION 222
- (Exam Topic 4)
Drag and drop the HTTP methods used with REST-Based APIs from the left onto the descriptions on the right.

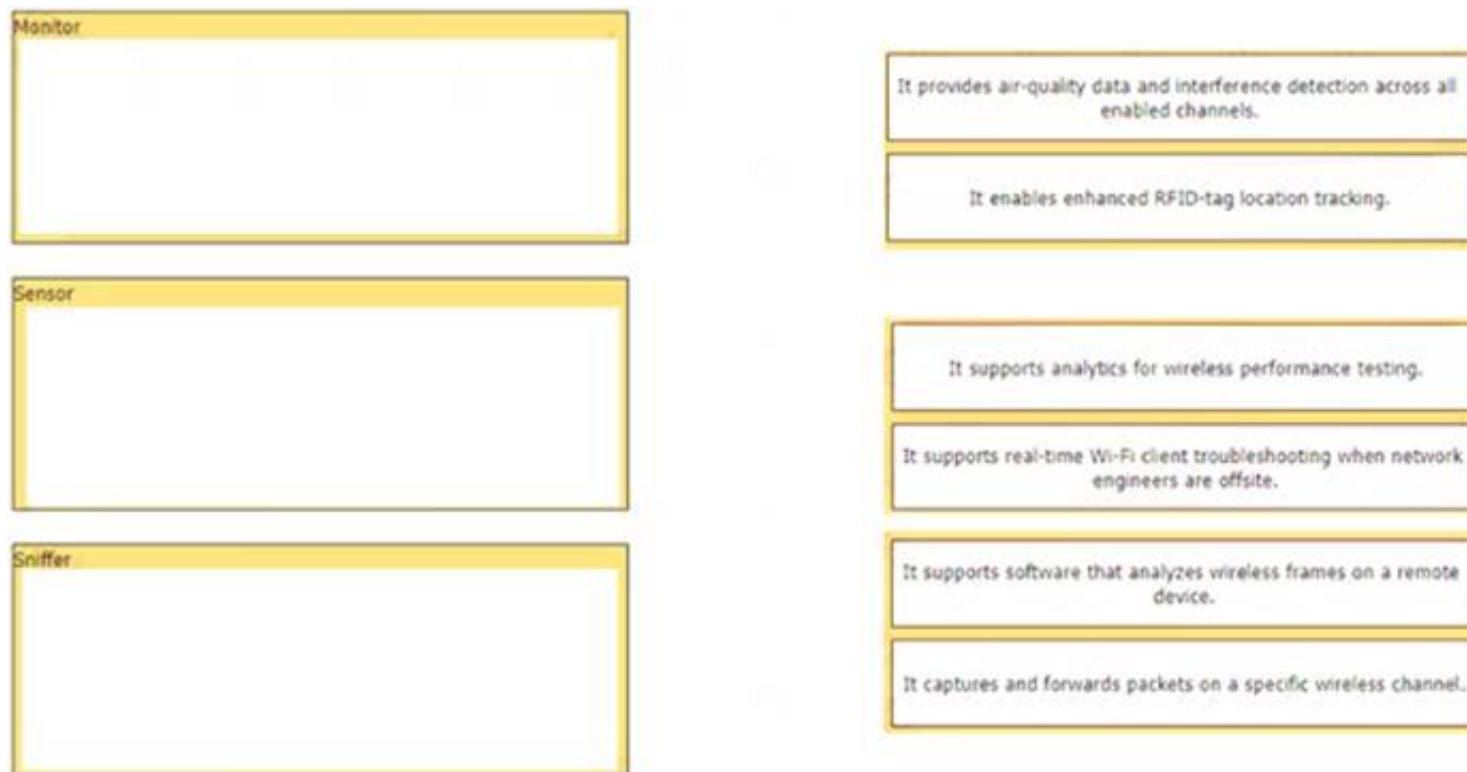A. Mastered
B. Not Mastered

Answer: A

Explanation:
Table Description automatically generated

NEW QUESTION 225
- (Exam Topic 4)
Drag and drop the statements about access-point modes from the left onto the corresponding modes on the right.
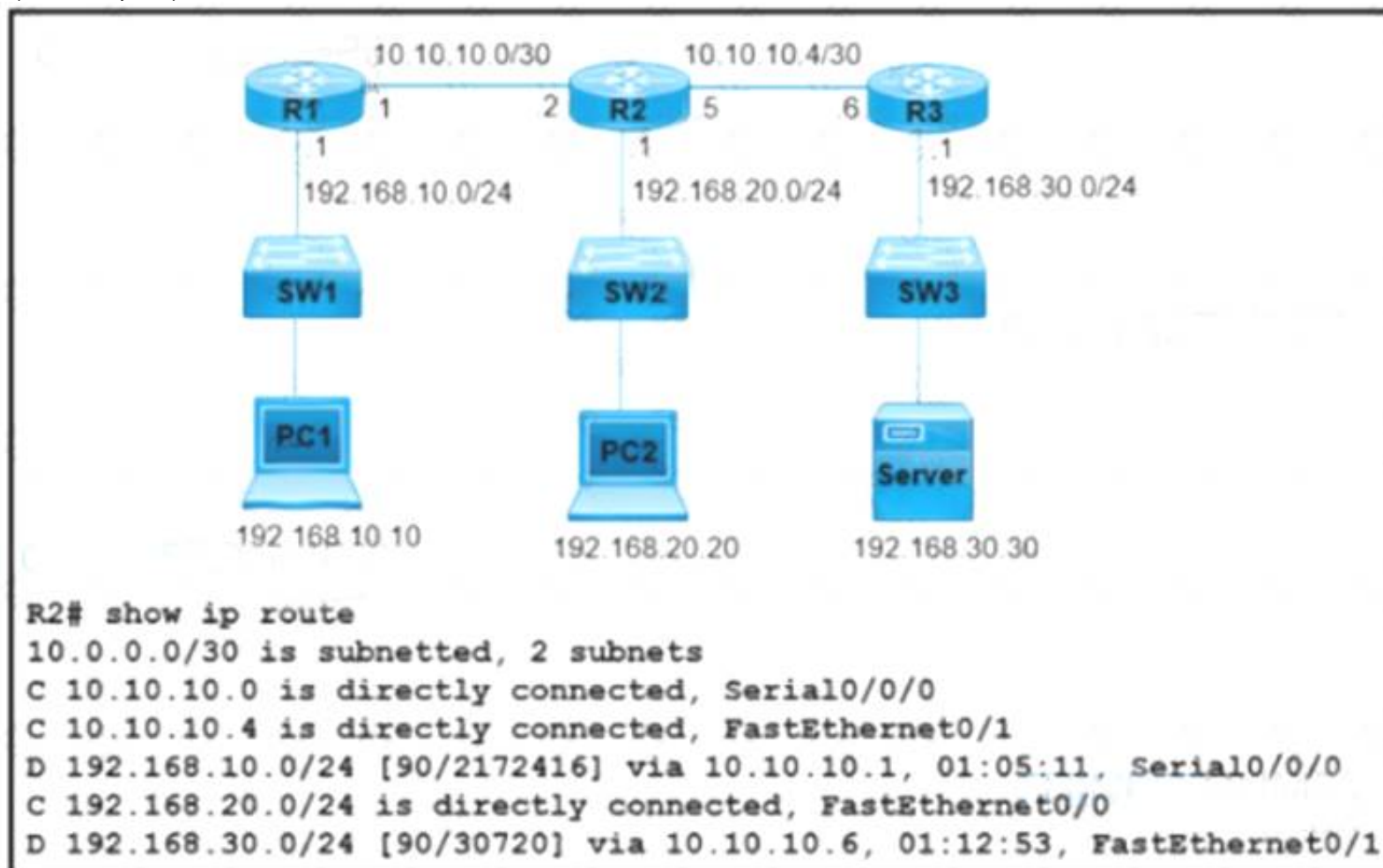
Monitor		It provides air-quality data and interference detection across all enabled channels.
		It enables enhanced RFID-tag location tracking.

Sensor		It supports analytics for wireless performance testing.
		It supports real-time Wi-Fi client troubleshooting when network engineers are offsite.

Sniffer		It supports software that analyzes wireless frames on a remote device.
		It captures and forwards packets on a specific wireless channel.

A. Mastered
B. Not Mastered

Answer: A

Explanation:
A picture containing diagram Description automatically generated

NEW QUESTION 227
- (Exam Topic 4)

```
R2# show ip route
10.0.0.0/30 is subnetted, 2 subnets
C   10.10.10.0 is directly connected, Serial0/0/0
C   10.10.10.4 is directly connected, FastEthernet0/1
D   192.168.10.0/24 [90/2172416] via 10.10.10.1, 01:05:11, Serial0/0/0
C   192.168.20.0/24 is directly connected, FastEthernet0/0
D   192.168.30.0/24 [90/30720] via 10.10.10.6, 01:12:53, FastEthernet0/1
```

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

A. 192.168.30.1
B. 10.10 105
C. 10.10.10.6
D. 192.168.201

Answer: D

NEW QUESTION 231
- (Exam Topic 4)
SIP-based Call Admission Control must be configured in the Cisco WLC GUI. SIP call-snooping ports are configured. Which two actions must be completed next? (Choose two.)

A. Set the QoS level to silver or greater for voice traffic.
B. Set the QoS level to platinum for voice traffic.
C. Enable Media Session Snooping on re WLAN.
D. Enable traffic shaping for the LAN interlace of the WLC.

E. Configure two different QoS rotes tor data and voice traffic.

Answer: DE

NEW QUESTION 234
- (Exam Topic 4)
A Cisco engineer at a new branch office is configuring a wireless network with access points that connect to a controller that is based at corporate headquarters Wireless client traffic must terminate at the branch office and access-point survivability is required in the event of a WAN outage Which access point mode must be selected?
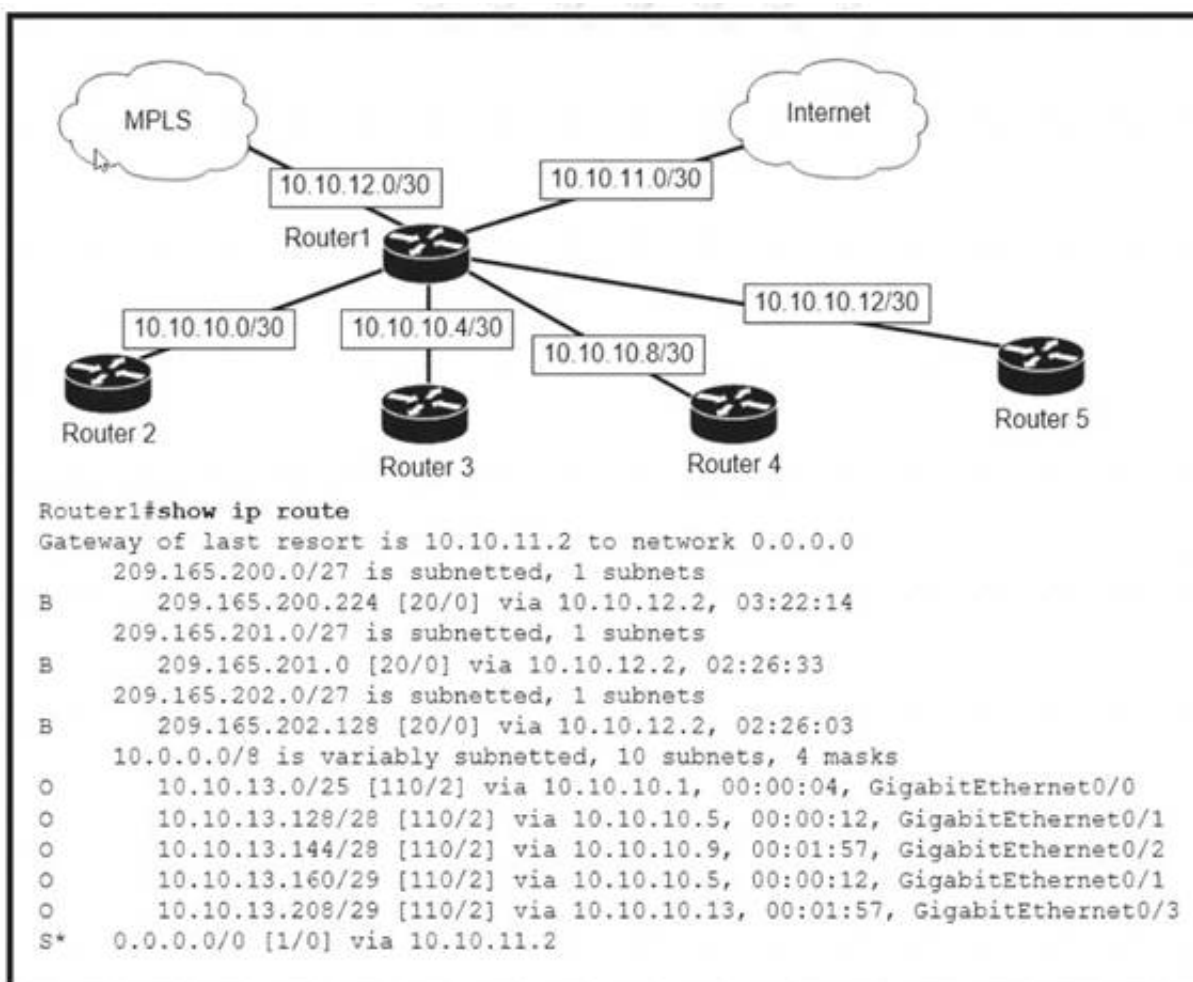
A. Lightweight with local switching disabled
B. Local with AP fallback enabled
C. OfficeExtend with high availability disabled
D. FlexConnect with local switching enabled

Answer: C

NEW QUESTION 236
- (Exam Topic 4)
Refer to the exhibit.


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

Drag and drop the destination IPs from the left onto the paths to reach those destinations on the right.

1.1.1.1	Router2
10.10.13.126	Router3
10.10.13.129	Router4
10.10.13.150	Router5
10.10.13.209	Internet cloud
209.165.200.30	MPLS cloud

A. Mastered
B. Not Mastered

Answer: A

Explanation:

1.1.1.1		10.10.13.126
10.10.13.126		10.10.13.129
10.10.13.129		10.10.13.150
10.10.13.150		10.10.13.209
10.10.13.209		209.165.200.30
209.165.200.30		1.1.1.1

NEW QUESTION 240
- (Exam Topic 4)
Which WLC interface provides out-of-band management in the Cisco Unified Wireless Network Architecture?

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

Answer: A

NEW QUESTION 243
- (Exam Topic 4)
Which IPsec transport mode encrypts the IP header and the payload?

A. pipe
B. control
C. transport
D. tunnel

Answer: D

NEW QUESTION 247
- (Exam Topic 4)
Drag and drop the characteristics of transport layer protocols from the left onto the corresponding protocols on the right.

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

A. Mastered
B. Not Mastered

Answer: A

Explanation:

guarantees packet delivery	TCP

	provides support for retransmission of lost packets
uses a 32-bit sequence number	guarantees packet delivery
	uses a 32-bit sequence number

| ideal for voice traffic | |

provides support for retransmission of lost packets	UDP
	ideal for voice traffic
offers minimal overhead within a packet	requires less computer resources
requires less computer resources	offers minimal overhead within a packet

NEW QUESTION 249
- (Exam Topic 4)
What is a benefit of using private IPv4 addressing?

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

Answer: A

NEW QUESTION 251
- (Exam Topic 4)
Refer to the exhibit.

```
MacOs$ ifconfig

en0: flags=8863<UP,BROADCAST,SMART,RUNNING,SIMPLEX,MULTICAST> mtu 1500
    options=400<CHANNEL_IO>
    ether f0:18:98:64:60:32
    inet6 fe80::492:c09f:57cf:8c36%en0 prefixlen 64 secured scopeid 0x6
    inet 10.8.138.14 netmask 0xffffe000 broadcast 10.8.159.255
    nd6 options=201<PERFORMNUD,DAD>
    media: autoselect
    status: active
```

A network engineer must provide configured IP addressing details to investigate a firewall rule Issue. Which subnet and mask Identify what is configured on the en0 interface?

A. 10.8.0.0/16
B. 10.8.64.0/18
C. 10.8.128.0/19
D. 10.8.138.0/24

Answer: D

NEW QUESTION 255
- (Exam Topic 4)
An engineer is configuring switch SW1 to act an NTP server when all upstream NTP server connectivity fails. Which configuration must be used?
A)
```
SW1# config t
SW1(config)#ntp peer 192.168.1.1
SW1(config)#ntp access-group peer accesslist1
```

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

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

D)

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

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

Answer: B

NEW QUESTION 257
- (Exam Topic 4)
What is the primary purpose of private address space?

A. conserve globally unique address space
B. simplify the addressing in the network
C. limit the number of nodes reachable via the Internet
D. reduce network complexity

Answer: A

NEW QUESTION 261
- (Exam Topic 4)
What is the advantage of separating the control plane from the data plane within an SDN network?

A. decreases overall network complexity
B. limits data queries to the control plane
C. reduces cost
D. offloads the creation of virtual machines to the data plane

Answer: A

NEW QUESTION 265
- (Exam Topic 4)
Drag and drop the AAA features from the left onto the corresponding AAA security services on the right. Not all options are used.

Answer Area

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

A. Mastered
B. Not Mastered

Answer: A

Explanation:

Answer Area

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

NEW QUESTION 267
- (Exam Topic 4)
When a WPA2-PSK WLAN is configured in the Wireless LAN Controller, what is the minimum number of characters that is required in ASCII format?

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

Answer: B

NEW QUESTION 268
- (Exam Topic 4)
Which interface enables communication between a program on the controller and a program on the networking devices?

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

Answer: B

NEW QUESTION 273
- (Exam Topic 4)
What is the MAC address used with VRRP as a virtual address?

A. 00-00-0C-07-AD-89
B. 00-00-5E-00-01-0a
C. 00-07-C0-70-AB-01
D. 00-C6-41-93-90-91

Answer: B

NEW QUESTION 276
- (Exam Topic 4)
Which component controls and distributes physical resources for each virtual machine?

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

Answer: B

NEW QUESTION 277
- (Exam Topic 4)
The address block 192 168 32 0/24 must be subnetted into smaller networks The engineer must meet these requirements
• Create 8 new subnets
• Each subnet must accommodate 30 hosts
• Interface VLAN 10 must use the last usable IP in the first new subnet

• A Layer 3 interface is used
Which configuration must be applied to the interface?

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

B)
```
switchport
ip address 192.168.32.65 255.255.255.240
```

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

D)
```
no switchport
ip address 192.168.32.30 255.255.255.224
```

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

Answer: D

NEW QUESTION 279
- (Exam Topic 4)
An engineer has configured the domain name, user name, and password on the local router. What is the next step to complete the configuration tor a Secure Shell access RSA key?

A. crypto key Import rsa pem
B. crypto key pubkey-chain rsa
C. crypto key generate rsa
D. crypto key zeroize rsa

Answer: C

NEW QUESTION 280
- (Exam Topic 4)
Which properly is shared by 10GBase-SR and 10GBase-LR interfaces?

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

Answer: A

NEW QUESTION 282
- (Exam Topic 4)
Refer to the exhibit.

```
interface g2/0/0
    channel-group 1 mode active
interface g4/0/0
    channel-group 1 mode active
interface Port-channel1
    ip address 203.0.113.65 255.255.255.252

%LINEPROTO-5-UPDOWN: Line protocol on Interface Port-channel1, changed state to down
```

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

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

Answer: D

NEW QUESTION 287
- (Exam Topic 4)
Refer to the exhibit.

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

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

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

Answer: A

NEW QUESTION 291
- (Exam Topic 4)

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

R7#
interface FastEthernet1/0
ip address 10.88.31.126 255.255.255.240

R8#
interface FastEthernet0/0
ip address 10.19.63.94 255.255.255.192

R9#
interface FastEthernet1/1
ip address 10.23.98.158 255.255.255.248

R7#
interface FastEthernet1/0
ip address 10.88.31.127 255.255.255.240

R8#
interface FastEthernet0/0
ip address 10.19.63.95 255.255.255.192

R9#
interface FastEthernet1/1
ip address 10.23.98.159 255.255.255.248

R7#
interface FastEthernet1/0
ip address 10.88.31.126 255.255.255.192

R8#
interface FastEthernet0/0
ip address 10.19.63.94 255.255.255.240

R9#
interface FastEthernet1/1
ip address 10.23.98.158 255.255.255.224

R7#
interface FastEthernet1/0
ip address 10.88.31.127 255.255.255.192

R8#
interface FastEthernet0/0
ip address 10.19.63.95 255.255.255.240

R9#
interface FastEthernet1/1
ip address 10.23.98.159 255.255.255.224

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

Answer: C

NEW QUESTION 293
- (Exam Topic 4)
Refer to the exhibit.

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

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

Answer: C

NEW QUESTION 296
- (Exam Topic 4)
Refer to the exhibit.

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

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

Answer: D

NEW QUESTION 299
- (Exam Topic 4)
A network engineer is replacing the switches that belong to a managed-services client with new Cisco Catalyst switches. The new switches will be configured for updated security standards, including replacing Telnet services with encrypted connections and doubling the modulus size from 1024. Which two commands must the engineer configure on the new switches? (Choose two.)

A. crypto key generate rsa general-keys modulus 1024
B. transport input all
C. crypto key generate rsa usage-keys
D. crypto key generate rsa modulus 2048
E. transport Input ssh

Answer: AE

NEW QUESTION 303

- (Exam Topic 4)
Refer to the exhibit.

```
R1#show ip ospf interface g0/0/0
GigabitEthernet0/0/0 is up, line protocol is up
  Internet address is 192.168.1.2/24, Area 0
  Process ID 1, Router ID 192.168.1.2, Network Type POINT-TO-POINT, Cost: 1
  Transmit Delay is 1 sec, State POINT-TO-POINT,
  Timer intervals configured, Hello 15, Dead 20, Wait 20, Retransmit 5
    Hello due in 00:00:08
  Index 1/1, flood queue length 0
  Next 0x0(0)/0x0(0)
  Last flood scan length is 1, maximum is 1
  Last flood scan time is 0 msec, maximum is 0 msec
  Suppress hello for 0 neighbor(s)

R2#show ip ospf interface g0/0/0
GigabitEthernet0/0/0 is up, line protocol is up
  Internet address is 192.168.1.1/24, Area 0
  Process ID 1, Router ID 10.1.1.1, Network Type POINT-TO-POINT, Cost: 1
  Transmit Delay is 1 sec, State POINT-TO-POINT,
  Timer intervals configured, Hello 10, Dead 40, Wait 40, Retransmit 5
    Hello due in 00:00:11
  Index 1/1, flood queue length 0
  Next 0x0(0)/0x0(0)
  Last flood scan length is 1, maximum is 1
  Last flood scan time is 0 msec, maximum is 0 msec
  Suppress hello for 0 neighbor(s)
```

The network engineer is configuring router R2 as a replacement router on the network After the initial configuration is applied it is determined that R2 failed to show R1 as a neighbor Which configuration must be applied to R2 to complete the OSPF configuration and enable it to establish the neighbor relationship with R1?
A)
```
R2(config)#router ospf 1
R2(config-router)#network 192.168.1.0 255.255.255.0 area 2
R2(config-router)#network 10.1.1.0 255.255.255.255 area 2
```

B)
```
R2(config)#router ospf 1
R2(config-router)#router-id 192.168.1.2
```

C)
```
R2(config)#interface g0/0/0
R2(config-if)#ip ospf dead-interval 20
```

D)
```
R2(config)#interface g0/0/0
R2(config-if)#ip ospf hello-interval 15
R2(config-if)#ip ospf dead-interval 20
```

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

Answer: D

NEW QUESTION 307
- (Exam Topic 4)
Refer to the exhibit.

```
SW1#show spanning-tree vlan 30

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


[Output suppressed]
```

What are two conclusions about this configuration? {Choose two.)

A. The spanning-tree mode is Rapid PVST+.
B. This is a root bridge.

C. The root port is FastEthernet 2/1.
D. The designated port is FastEthernet 2/1.
E. The spanning-tree mode is PVST+.

Answer: A

NEW QUESTION 308
- (Exam Topic 4)
Refer to the exhibit.


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

}
```

How many JSON objects are presented?

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

Answer: D

NEW QUESTION 310
- (Exam Topic 4)
What is the role of disaggregation in controller-based networking?

A. It divides the control-plane and data-plane functions.
B. It summarizes the routes between the core and distribution layers of the network topology.
C. It enables a network topology to quickly adjust from a ring network to a star network
D. It streamlines traffic handling by assigning individual devices to perform either Layer 2 or Layer 3 functions.

Answer: A

NEW QUESTION 314
- (Exam Topic 4)
What is a reason to configure a trunk port that connects to a WLC distribution port?

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

Answer: D

NEW QUESTION 317
- (Exam Topic 4)
Refer to the exhibit. A multivendor network exists and the company is implementing VoIP over the network for the first time.
A)

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

B)

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

C)

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

D)

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

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

D. Option D

Answer: B

NEW QUESTION 318
- (Exam Topic 4)
What does the implementation of a first-hop redundancy protocol protect against on a network?

A. root-bridge loss
B. spanning-tree loops
C. default gateway failure
D. BGP neighbor flapping

Answer: C

NEW QUESTION 323
- (Exam Topic 4)
Which command enables HTTP access to the Cisco WLC?

A. config network secureweb enable
B. config certificate generate web admin
C. config network webmode enable
D. config network telnet enable

Answer: C

NEW QUESTION 326
- (Exam Topic 4)
What is a reason to implement LAG on a Cisco WLC?

A. Increase the available throughput on the link.
B. Increase security by encrypting management frames
C. Allow for stateful failover between WLCs
D. Enable the connected switch ports to use different Layer 2 configurations

Answer: A

Explanation:
Link Aggregation Group (LAG) is a feature that allows you to bundle multiple physical Ethernet links into a
single logical link, and is used to increase the available throughput on the link. LAG is supported on the Cisco Wireless LAN Controller (WLC) and the connected
switch ports [1], and can be used to provide greater bandwidth and increased redundancy. It also enables the connected switch ports to use different Layer 2
configurations, such as Spanning Tree Protocol (STP) and Hot Standby Router Protocol (HSRP).

NEW QUESTION 328
- (Exam Topic 4)
What is the functionality of the Cisco DNA Center?

A. data center network pokey con
B. console server that permits secure access to all network devices
C. IP address cool distribution scheduler
D. software-defined controller for automaton of devices and services

Answer: D

NEW QUESTION 330
- (Exam Topic 4)
Which IPv6 address range is suitable for anycast addresses for distributed services such DHCP or DNS?

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

Answer: A

NEW QUESTION 333
- (Exam Topic 4)
Refer to the exhibit.

Router R1 must be configured to reach the 10.0.3.0/24 network from the 10.0.1.0/24 segment. Which command must be used to configure the route?

A. ip route 10.0.3.0 0.255255.255 10.0.4.2
B. route add 10.0.3.0 mask 255.255.255.0 10.0.4.3
C. Ip route 10.0.3.0 255.255.255.0 10.0.4.3
D. route add 10.0.3.0 0.255.255.255 10.0.4.2

Answer: C

NEW QUESTION 335
- (Exam Topic 4)
Refer to the exhibit.

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

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

Answer: C

NEW QUESTION 336
- (Exam Topic 4)
A client experiences slow throughput from a server that is directly connected to the core switch in a data center. A network engineer finds minimal latency on connections to the server, but data transfers are unreliable, and the output of the show Interfaces counters errors command shows a high FCS-Err count on the interface that is connected to the server. What is the cause of the throughput issue?

A. high bandwidth usage
B. a physical cable fault

C. a speed mismatch
D. a cable that is too long

Answer: B

NEW QUESTION 340
- (Exam Topic 4)
What are two examples of multifactor authentication? (Choose two.)

A. single sign-on
B. unique user knowledge
C. passwords that expire
D. soft tokens
E. shared password responsibility

Answer: BD

NEW QUESTION 341
- (Exam Topic 4)
What is a benefit of a point-to-point leased line?

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

Answer: B

NEW QUESTION 343
- (Exam Topic 4)
Why would a network administrator choose to implement automation in a network environment?

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

Answer: A

NEW QUESTION 345
- (Exam Topic 4)
What is a specification for SSIDS?

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

Answer: B

NEW QUESTION 348
- (Exam Topic 4)
Refer to the exhibit.

All interfaces are in the same VLAN. All switches are configured with the default STP priorities. During the STP electronics, which switch becomes the root bridge?

A. MDF-DC-4:08:E0:19: 08:B3:19
B. MDF-DC-3:08:0E:18::1A:3C:9D
C. MDF-DC-08:0E:18:22:05:97
D. MDF-DC-1:DB:E:44:02:54:79

Answer: C

NEW QUESTION 351
- (Exam Topic 4)
What are two protocols within the IPsec suite? (Choose two)

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

Answer: DE

NEW QUESTION 354
- (Exam Topic 4)
Drag and drop the statements about networking from the left onto the corresponding networking types on the right

A. Mastered
B. Not Mastered

Answer: A

Explanation:

NEW QUESTION 358
- (Exam Topic 4)
Drag and drop the characteristic from the left onto the IPv6 address type on the right.

A. Mastered
B. Not Mastered

Answer: A

Explanation:

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

NEW QUESTION 363
- (Exam Topic 4)
Drag and drop the descriptions of IP protocol transmissions from the left onto the IP traffic types on the right.

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

A. Mastered
B. Not Mastered

Answer: A

Explanation:

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

NEW QUESTION 365
- (Exam Topic 4)
What is the function of northbound API?

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

Answer: D

NEW QUESTION 367
- (Exam Topic 4)
When an access point is seeking to join wireless LAN controller, which message is sent to the AP- Manager interface?

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

Answer: D

NEW QUESTION 370
- (Exam Topic 4)
An engineer must configure neighbor discovery between the company router and an ISP

```
interface gigabitethernet0/0
description Circuit-ATT4203-21099
duplex full
speed 1000
media-type gbic
negotiation auto
lldp transmit
lldp receive
```

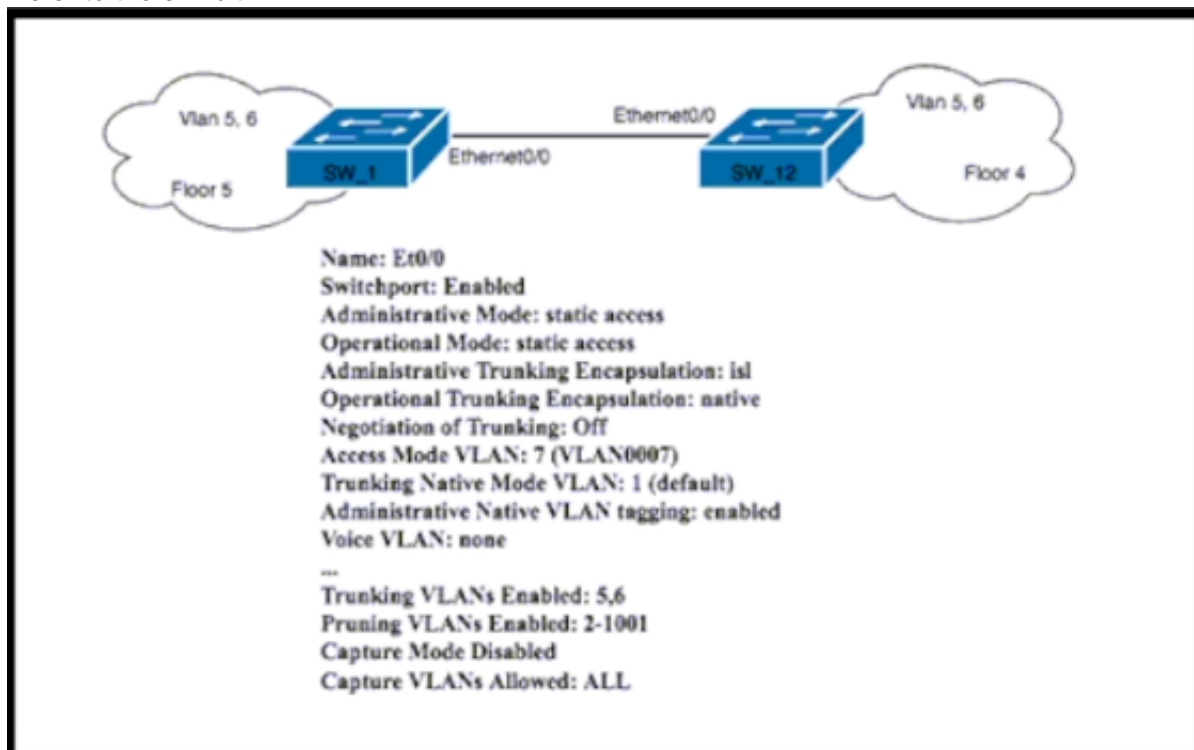What is the next step to complete the configuration if the ISP uses a third-party router?

A. Enable LLDP globally.
B. Disable CDP on gi0/0.
C. Enable LLDP TLVs on the ISP router.
D. Disable auto-negotiation.

Answer: A

NEW QUESTION 373
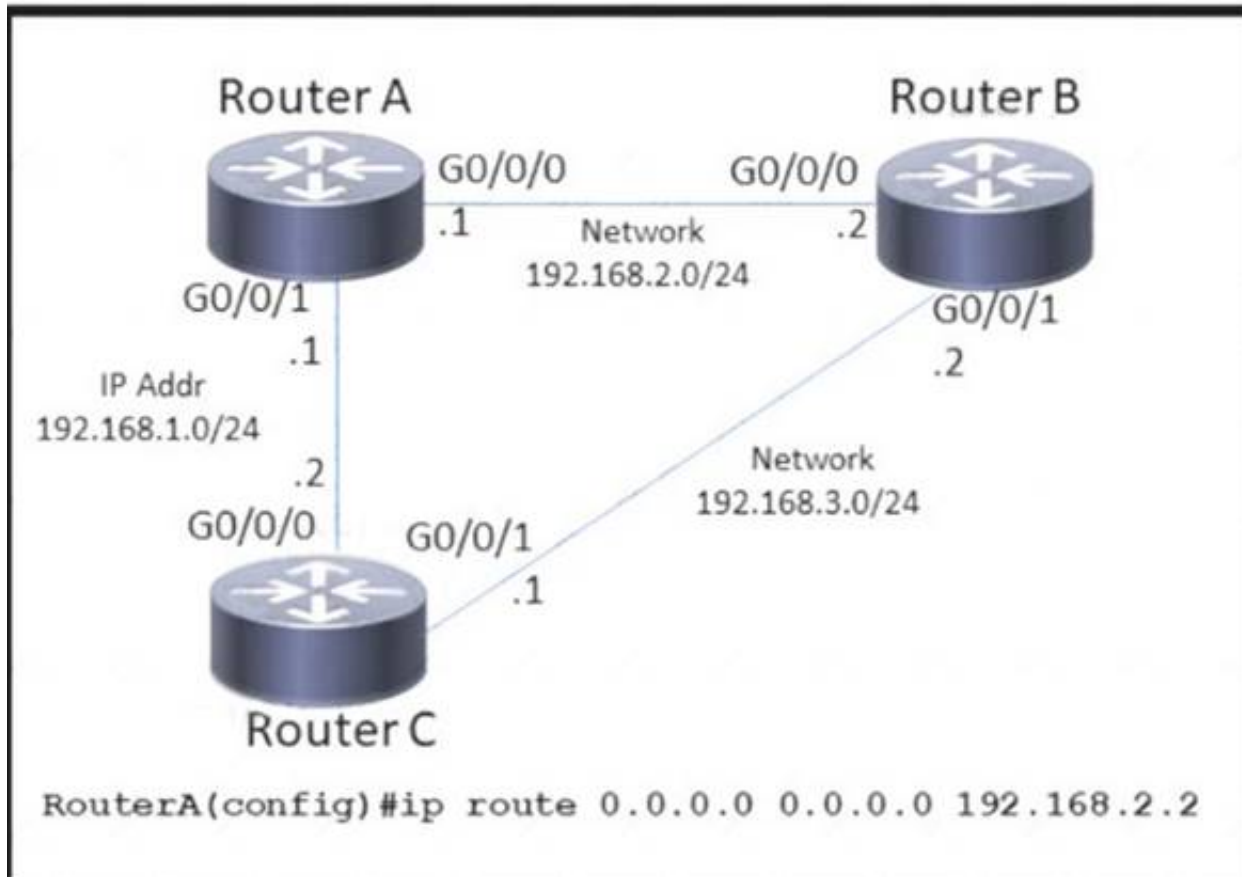- (Exam Topic 4)
Refer to the exhibit.

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

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

Answer: A

NEW QUESTION 376

- (Exam Topic 4)
Refer to the exhibit.


```
RouterA(config)#ip route 0.0.0.0 0.0.0.0 192.168.2.2
```

Which command must be enable a floating default route on router A?

A. ip route 0.0.0.0 0.0.0.0 192.168.1.2
B. ip default-gateway 192.168.2.1
C. ip route 0.0.0.0 0.0.0.0 192.168.1.2 10
D. ip route 0.0.0.0 0.0.0.0 192.168.2.1 10

Answer: C

NEW QUESTION 380
- (Exam Topic 4)
Which WPA mode uses PSK authentication?
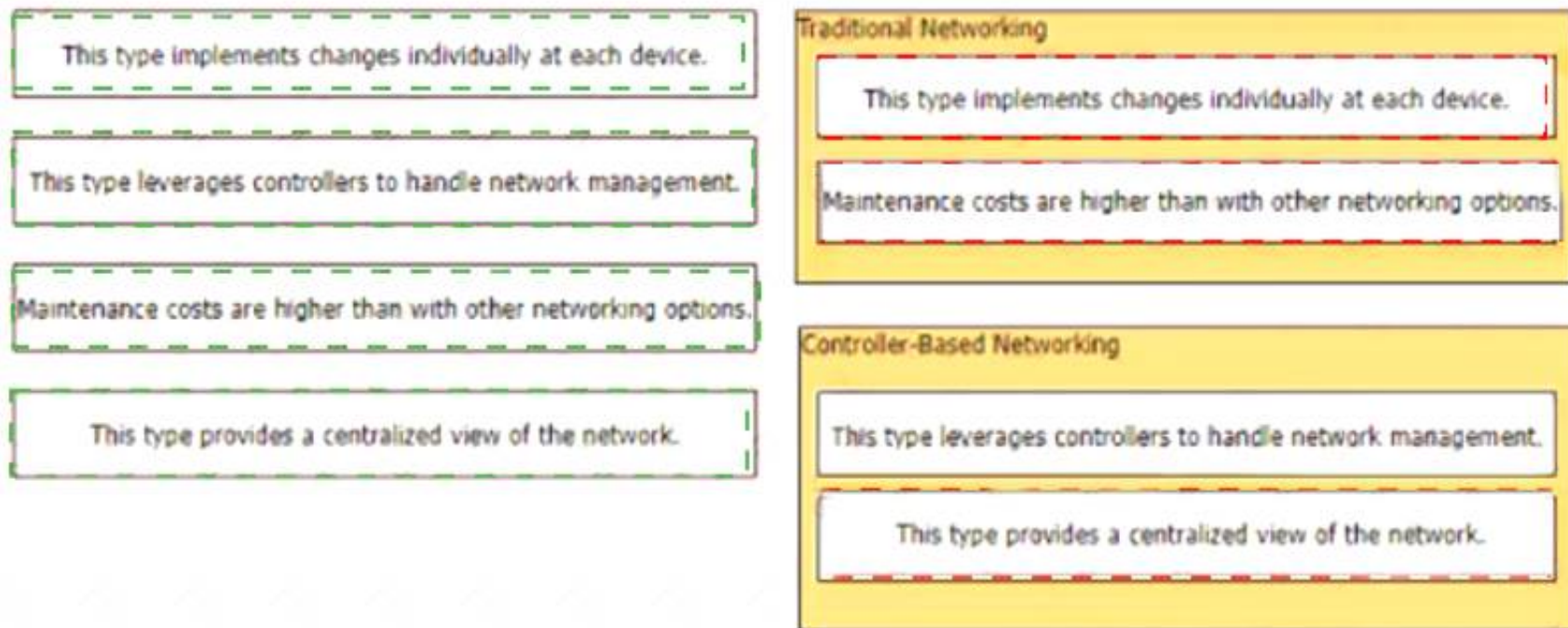
A. Local
B. Client
C. Enterprise
D. Personal

Answer: C

NEW QUESTION 381
- (Exam Topic 4)
Drag and drop the statements about networking from me left onto the corresponding networking types on the right

A. Mastered
B. Not Mastered

Answer: A

Explanation:

This type implements changes individually at each device.

This type leverages controllers to handle network management.

Maintenance costs are higher than with other networking options.

This type provides a centralized view of the network.

Traditional Networking

This type implements changes individually at each device.

Maintenance costs are higher than with other networking options.

Controller-Based Networking

This type leverages controllers to handle network management.

This type provides a centralized view of the network.

NEW QUESTION 382
- (Exam Topic 4)
When should an engineer implement a collapsed-core architecture?

A. for small networks with minimal need for growth
B. the access and distribution layers must be on the same device
C. for large networks that are connected to multiple remote sites
D. only when using VSS technology

Answer: C

NEW QUESTION 384
- (Exam Topic 4)
What is the collapsed layer in collapsed core architectures?

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

Answer: D

NEW QUESTION 387
- (Exam Topic 4)
Refer to the exhibit.

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

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

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

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

Answer: D

NEW QUESTION 391
- (Exam Topic 4)
Refer to the exhibit.

The P2P blocking action option is disabled on the WLC.

A. Enable the Static IP Tunneling option.
B. Disable the Coverage Hole Detection option.
C. Check the DHCP Add
D. Assignment check box.
E. Set the P2P Blocking Action option to Forward-UpStream.

Answer: A

NEW QUESTION 395
- (Exam Topic 4)
Why would VRRP be implemented when configuring a new subnet in a multivendor environment?

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

Answer: A

NEW QUESTION 396
- (Exam Topic 4)
What is the purpose of the Cisco DNA Center controller?

A. to secure physical access to a data center
B. to scan a network and generate a Layer 2 network diagram
C. to securely manage and deploy network devices
D. to provide Layer 3 services to autonomous access points

Answer: C

NEW QUESTION 399
- (Exam Topic 4)
Refer to the exhibit.

```
R1#sho ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route, H - NHRP, l - LISP
       + - replicated route, % - next hop override

Gateway of last resort is 10.56.0.1 to network 0.0.0.0

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

When router R1 is sending traffic to IP address 10.56.192 1, which interface or next hop address does it use to route the packet?

A. 0.0.0.0.0/0
B. 10.56.0.1
C. 10.56.128.19
D. Vlan57

Answer: B

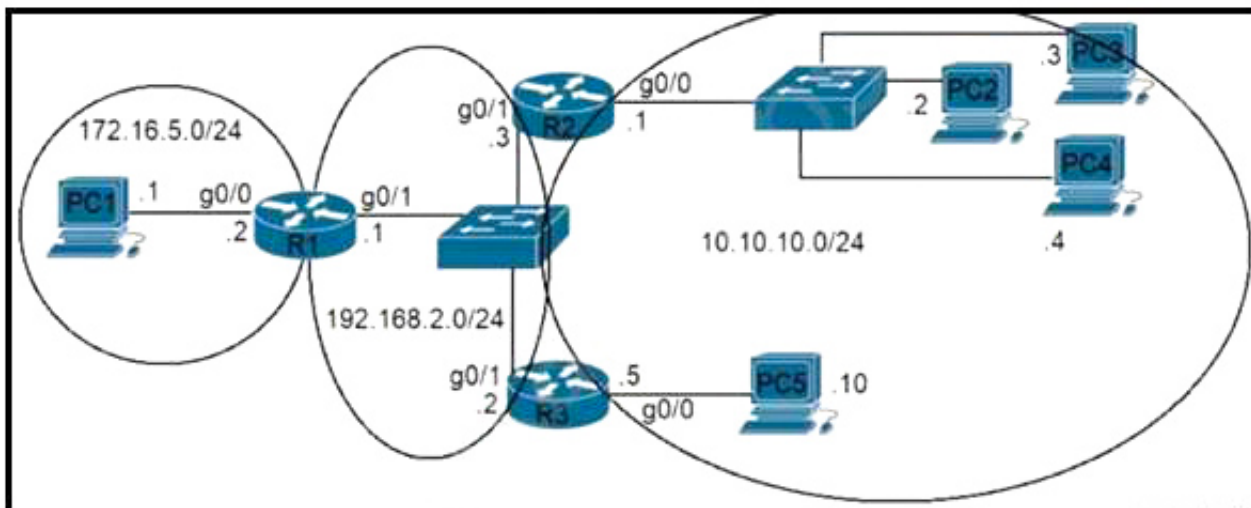**NEW QUESTION 404**
- (Exam Topic 4)
A network engineer must configure an interface with IP address 10.10.10.145 and a subnet mask equivalent to 11111111.11111111.11111111.11111000. Which subnet mask must the engineer use?

A. /29
B. /30
C. /27
D. /28

Answer: A

NEW QUESTION 407
- (Exam Topic 4)

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

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

Answer: AE

NEW QUESTION 408
- (Exam Topic 4)
Which protocol must be implemented to support separate authorization and authentication solutions for wireless APs?
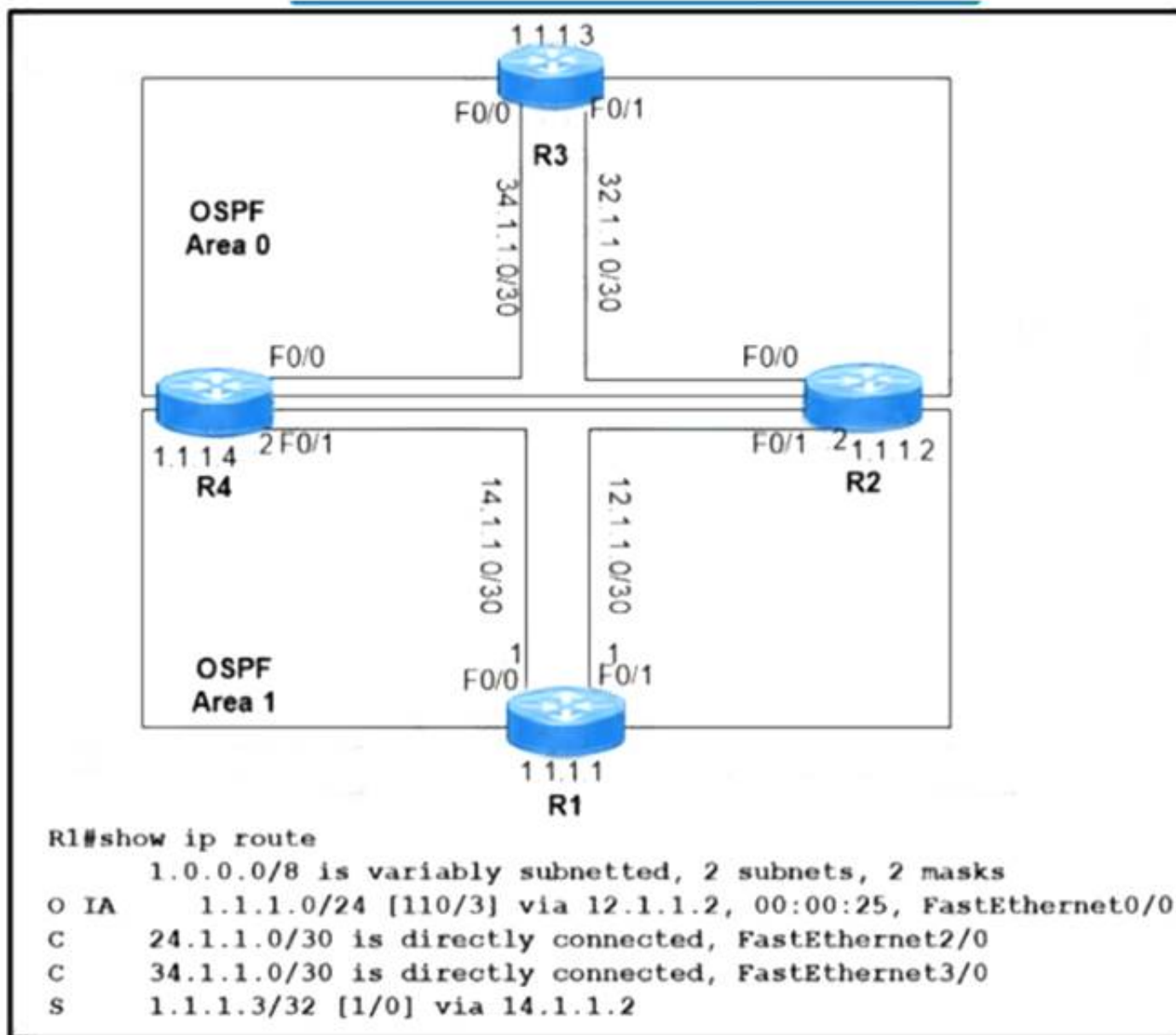
A. RADIUS
B. TACACS+
C. 802.1X
D. Kerberos

Answer: A

NEW QUESTION 410
- (Exam Topic 4)
Refer to the exhibit.


```
R1#show ip route
      1.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
O IA    1.1.1.0/24 [110/3] via 12.1.1.2, 00:00:25, FastEthernet0/0
C     24.1.1.0/30 is directly connected, FastEthernet2/0
C     34.1.1.0/30 is directly connected, FastEthernet3/0
S     1.1.1.3/32 [1/0] via 14.1.1.2
```

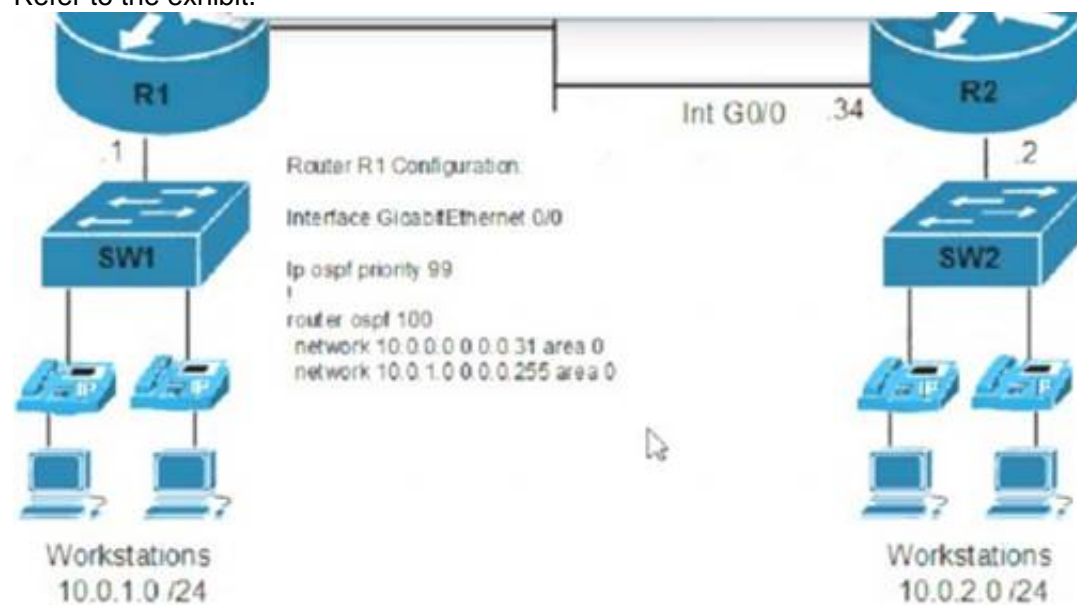Which two values does router R1 use to identify valid routes for the R3 loopback address 1.1.1.3/32? (Choose two.)

A. lowest cost to teach the next hop
B. highest metric
C. highest administrative distance
D. lowest metric
E. lowest administrative distance

Answer: DE

NEW QUESTION 411
- (Exam Topic 4)
Refer to the exhibit.

An engineer must configure router R2 so it is elected as the DR on the WAN subnet. Which command sequence must be configured?
A)

```
interface gigabitethernet0/0
   ip address 10.0.0.34 255.255.255.224
   ip ospf priority 100
```

B)

```
interface gigabitethernet0/0
   ip address 10.0.1.1 255.255.255.224
   ip ospf priority 98
```

C)

```
interface gigabitethernet0/0
   ip address 10.0.0.34 255.255.255.248
   ip ospf priority 0
```

D)
```
interface gigabitethernet0/0
   ip address 10.0.1.1 255.255.255.0
   ip ospf priority 255
```

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

Answer: A

NEW QUESTION 413
- (Exam Topic 4)
Drag and drop the characteristic from the left onto the IPv6 address type on the right.

	Multicast
is used exclusively by a non-host device	
sends packets to a group address rather than a single address	

	Anycast
has a unicast source sent to a group	
is routed to the nearest interface that has the address	

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Graphical user interface, application Description automatically generated

NEW QUESTION 418
- (Exam Topic 4)
An engineer is installing a new wireless printer with a static IP address on the Wi-Fi network. Which feature must be enabled and configured to prevent connection issues with the printer?

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

Answer: C

NEW QUESTION 422
- (Exam Topic 4)
Drag and drop the QoS terms from the left onto the descriptions on the right.

class-based weighted fair queueing	categorizes packets based on the value of a traffic descriptor
classification	guarantees minimum bandwidth to specific traffic classes when an interface is congested
congestion	prevents congestion by reducing the flow of outbound traffic
policing	outcome of overutilization
shaping	uses defined criteria to limit the transmission of one or more classes of traffic

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Table Description automatically generated

NEW QUESTION 424
- (Exam Topic 4)
Refer to the exhibit.

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

}
```

How many JSON objects are represented?

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

Answer: D

NEW QUESTION 426
- (Exam Topic 4)
Drag and drop the characteristic from the left onto the IPv6 address type on the right.

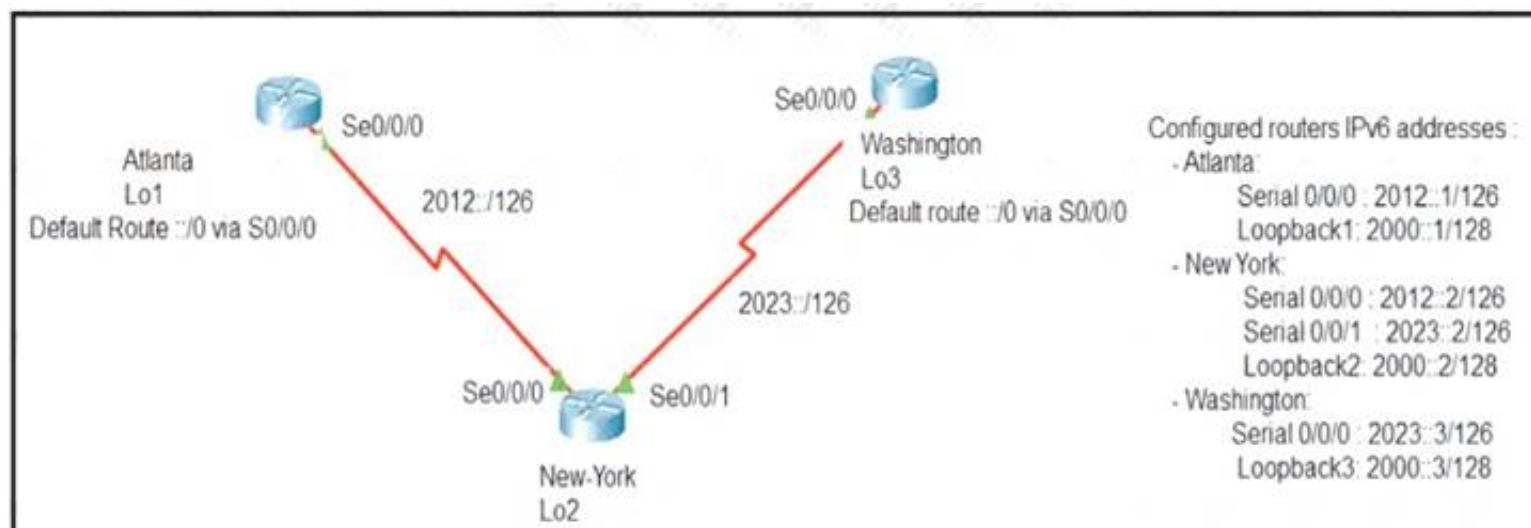A. Mastered
B. Not Mastered

Answer: A

Explanation:
Graphical user interface, application Description automatically generated

NEW QUESTION 431
- (Exam Topic 4)
Refer to the exhibit.

The loopback1 interface of the Atlanta router must reach the lookback3 interface of the Washington router.

A. ipv6 route 2000::1/128 2012::2
B. ipv6 route 2000::1/128 2012::1
C. ipv6 route 2000:3 123 s0/0/0
D. ipv6 route 2000::3/128 2023::3
E. ipv6 route 2000::1/128 s0/0/1

Answer: BD

NEW QUESTION 434
- (Exam Topic 4)
Which IP header field is changed by a Cisco device when QoS marking is enabled?

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

Answer: B

NEW QUESTION 439
- (Exam Topic 4)
Refer to the exhibit.

```
Cat9K-1# show lldp entry Cat9K-2

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

Management Addresses:
    IP: 10.5.110.2
```

The network administrator must prevent the switch Cat9K-2 IP address from being visible in LLDP without disabling the protocol. Which action must be taken must be taken to complete the task?
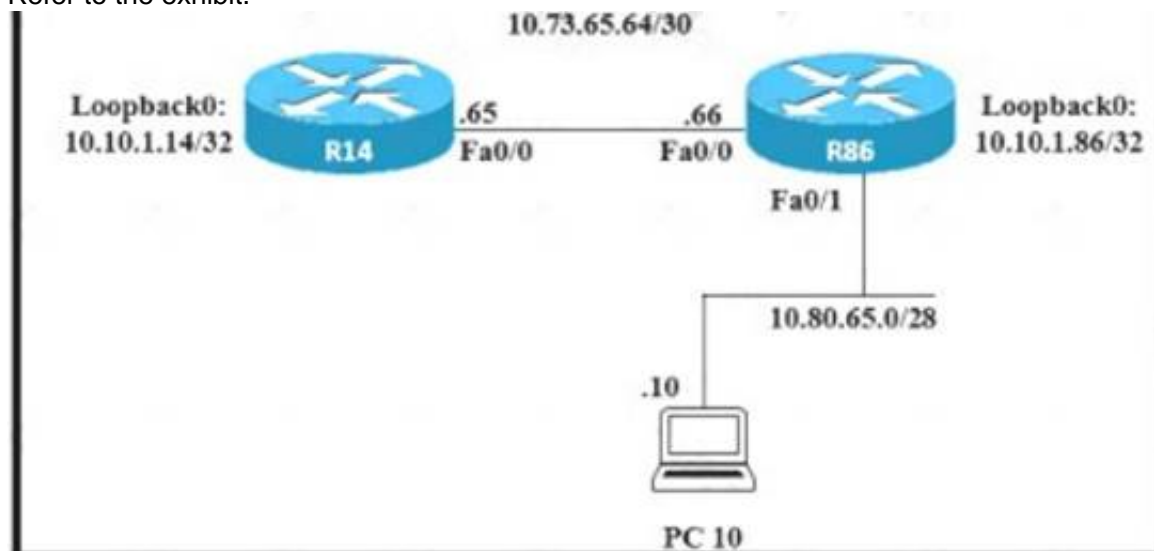
A. Configure the no lldp tlv-select-management-address command globally on Cat9K-2
B. Configure the no lldp transmit command on interface G1/0/21 in Cat9K-1
C. Configure the no lldp receive command on interface G1/0/21 on Cat9K-1
D. Configure the no lldp mac-phy-cfg command globally on Cat9K-2

Answer: A

NEW QUESTION 443
- (Exam Topic 4)
Refer to the exhibit.

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

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

Answer: B

NEW QUESTION 446
- (Exam Topic 4)
An engineer must configure a core router with a floating static default route to the backup router at 10.200.0.2.

DNS	TCP
HTTP	
RTP	
SMTP	
SNMP	UDP
Telnet	

A. Mastered
B. Not Mastered

Answer: A

Explanation:

DNS	TCP
HTTP	HTTP
RTP	SMTP
SMTP	Telnet
SNMP	UDP
Telnet	DNS
	SNMP
	RTP

NEW QUESTION 448
- (Exam Topic 4)
What is the default port-security behavior on a trunk link?

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

Answer: A

NEW QUESTION 453
- (Exam Topic 4)

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

Refer to the exhibit. What is represented by "R1" and "SW1" within the JSON output?

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

Answer: B

NEW QUESTION 457
- (Exam Topic 4)
What must be considered for a locally switched FlexConnect AP if the VLANs that are used by the AP and client access are different?

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

Answer: C

NEW QUESTION 460
- (Exam Topic 4)
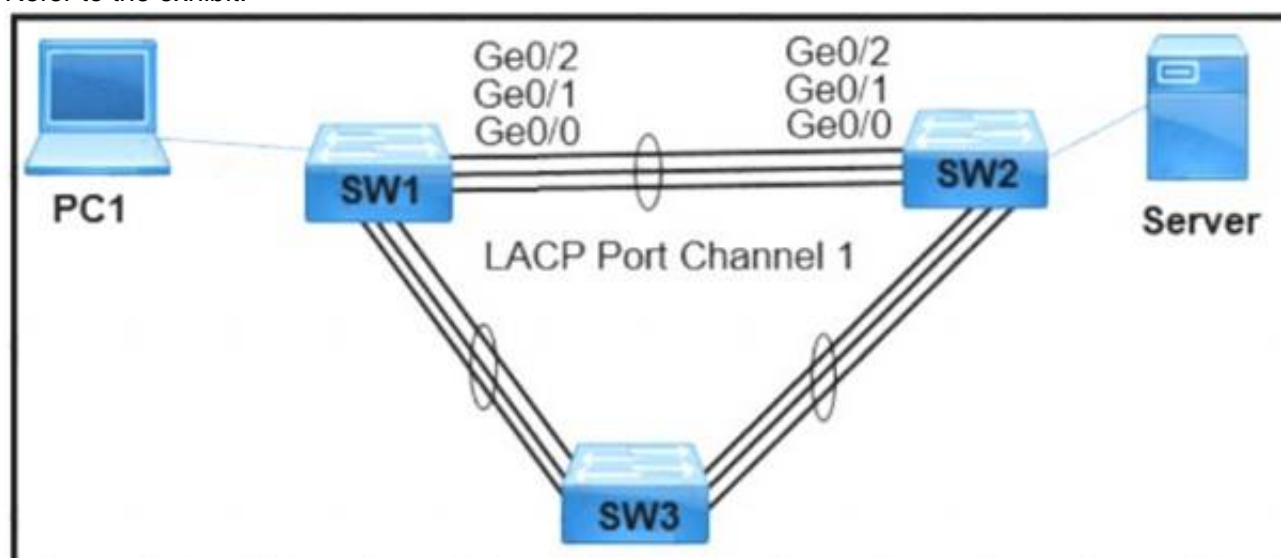What is the role of nonoverlapping channels in a wireless environment?

A. to reduce interference
B. to allow for channel bonding
C. to stabilize the RF environment
D. to increase bandwidth

Answer: A

NEW QUESTION 464
- (Exam Topic 4)
Refer to the exhibit.

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

A)

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

B)

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

C)

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

D)

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

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

Answer: D

NEW QUESTION 469
- (Exam Topic 4)
Which two features introduced in SNMPv2 provides the ability to retrieve large amounts of data in one request

A. Get

B. GetNext
C. Set
D. GetBulk
E. Inform

Answer: AD

NEW QUESTION 470
- (Exam Topic 4)
A network engineer is upgrading a small data center to host several new applications, including server backups that are expected to account for up to 90% of the bandwidth during peak times. The data center connects to the MPLS network provider via a primary circuit and a secondary circuit. How does the engineer inexpensively update the data center to avoid saturation of the primary circuit by traffic associated with the backups?

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

Answer: A

NEW QUESTION 475
- (Exam Topic 4)
An engineer is configuring a switch port that is connected to a VoIP handset. Which command must the engineer configure to enable port security with a manually assigned MAC address of abod-bod on voice VLAN 4?

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

Answer: A

NEW QUESTION 476
- (Exam Topic 4)
Which two wireless security stewards use Counter Mode Cipher Block Chaining Message Authentication Code Protocol for encryption and data integrity'? (Choose two.)

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

Answer: BD

NEW QUESTION 478
- (Exam Topic 4)
Why implement VRRP?

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

Answer: A

NEW QUESTION 483
- (Exam Topic 4)
Which device segregates a network into separate zones that have their own security policies?

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

Answer: C

NEW QUESTION 484
- (Exam Topic 4)
Drag and drop the use cases for device-management technologies from the left onto the corresponding.

overlay and underlay configuration		Cisco DNA Center
routed access deployment		
STP deployment		
VLAN and HSRP configuration		Traditional
VXLAN and LISP configuration		
configuration via console		

A. Mastered
B. Not Mastered

Answer: A

Explanation:

overlay and underlay configuration		Cisco DNA Center
routed access deployment		overlay and underlay configuration
STP deployment		routed access deployment
VLAN and HSRP configuration		STP deployment
VXLAN and LISP configuration		Traditional
configuration via console		VLAN and HSRP configuration
		VXLAN and LISP configuration
		configuration via console

NEW QUESTION 486
- (Exam Topic 4)
What is the primary purpose of a console port on a Cisco WLC?

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

Answer: D

NEW QUESTION 487
- (Exam Topic 4)
Refer to the exhibit.

```
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route, H - NHRP, l - LISP
       a - application route
       + - replicated route, % - next hop override, p - overrides from PfR
Gateway of last resort is 0.0.0.0 to network 0.0.0.0
S*     0.0.0.0/0 is directly connected, Null0
       10.0.0.0/8 is variably subnetted, 6 subnets, 2 masks
C         10.0.12.0/24 is directly connected, GigabitEthernet0/1
L         10.0.12.1/32 is directly connected, GigabitEthernet0/1
C         10.0.13.0/24 is directly connected, GigabitEthernet0/2
L         10.0.13.1/32 is directly connected, GigabitEthernet0/2
C         10.0.14.0/24 is directly connected, GigabitEthernet0/3
L         10.0.14.1/32 is directly connected, GigabitEthernet0/3
D      192.168.0.0/16 [90/130816] via 10.0.13.3, 00:10:09, GigabitEthernet0/2
O      192.168.0.0/23 [110/2] via 10.0.14.4, 00:00:46, GigabitEthernet0/3
S      192.168.0.0/24 [100/0] via 10.0.12.2
```

Which interface is chosen to forward traffic to the host at 192.168.0.55?

A. GigabitEthernet0
B. GigabitEthernet0/1
C. Null0
D. GigabitEthernet0/3

Answer: B

NEW QUESTION 492
- (Exam Topic 4)
Drag and drop the characteristics of device-management technologies from the left onto the corresponding deployment types on the right.

orchestrates background device configuration		Cisco DNA Center
provides greater flexibility for custom and non-standard configurations		
relies on per-device management		
supports centralized software management		Traditional
supports open APIs		
uses individual software management		

A. Mastered
B. Not Mastered

Answer: A

Explanation:

orchestrates background device configuration		Cisco DNA Center
provides greater flexibility for custom and non-standard configurations		supports centralized software management
relies on per-device management		orchestrates background device configuration
supports centralized software management		relies on per-device management
supports open APIs		Traditional
uses individual software management		provides greater flexibility for custom and non-standard configurations
		uses individual software management
		supports open APIs

NEW QUESTION 496
- (Exam Topic 3)
Refer to the exhibit.


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

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

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

Answer: A

NEW QUESTION 499
- (Exam Topic 4)
Which advantage does the network assurance capability of Cisco DNA Center provide over traditional campus management?

A. Cisco DNA Center correlates information from different management protocols to obtain insights, and traditional campus management requires manual analysis.
B. Cisco DNA Center handles management tasks at the controller to reduce the load on infrastructure devices, and traditional campus management uses the data backbone.
C. Cisco DNA Center leverages YANG and NETCONF to assess the status of fabric and nonfabric devices, and traditional campus management uses CLI exclusively.
D. Cisco DNA Center automatically compares security postures among network devices, and traditional campus management needs manual comparisons.

Answer: C

NEW QUESTION 500
- (Exam Topic 4)
Refer to the exhibit.

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

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

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

Answer: B

NEW QUESTION 503
- (Exam Topic 4)
How does encryption project the wireless network?

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

Answer: C

NEW QUESTION 507
- (Exam Topic 4)
Which channel-group mode must be configured when multiple distribution interfaces connected to a WLC are bundled?

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

Answer: B

NEW QUESTION 510
- (Exam Topic 4)
Drag and drop the Ansible terms from the left onto the right.

control node	collection of actions to perform on target devices, expressed in YAML format
inventory	device with Ansible installed that manages target devices
managed node	network device, without Ansible installed, upon which commands can be executed
module	specific action to be performed on one or more target devices
playbook	unit of Python code to be executed
task	Ansible file that defines the target devices upon which commands and tasks can be executed

A. Mastered
B. Not Mastered

Answer: A

Explanation:

control node	inventory
inventory	playbook
managed node	module
module	task
playbook	managed node
task	control node

NEW QUESTION 513
- (Exam Topic 4)
What is the function of "off-the-shell" switches in a controller-based network?
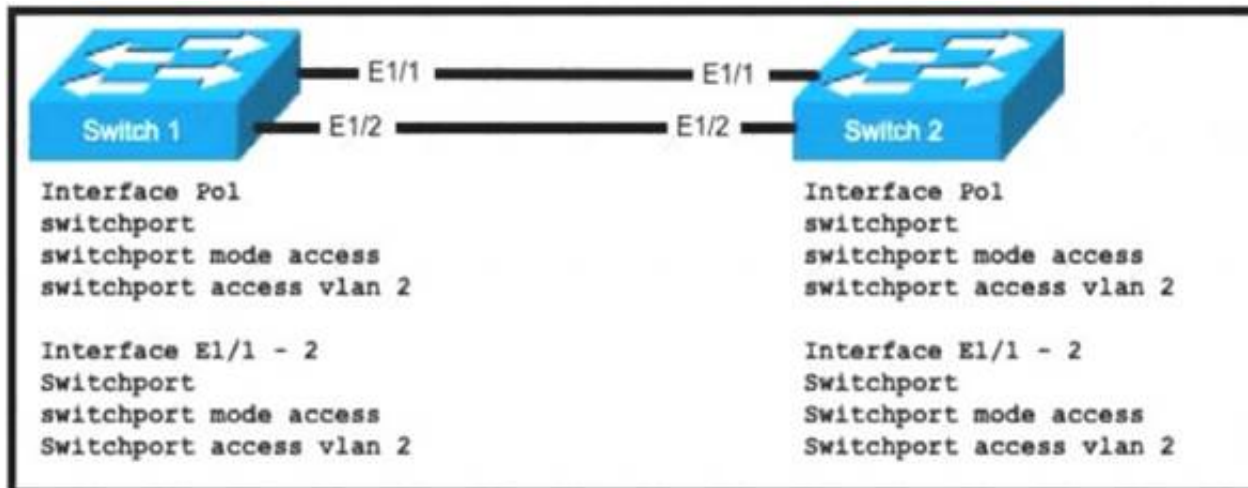
A. providing a central view of the deployed network

B. forwarding packets
C. making routing decisions
D. setting packet-handling policies

Answer: D

NEW QUESTION 518
- (Exam Topic 3)
Refer to the exhibit.

An engineer is configuring an EtherChannel using LACP between Switches 1 and 2 Which configuration must be applied so that only Switch 1 sends LACP initiation packets?

A. Switch 1 (config-if)#channel-group 1 mode on Swrtch2(config-if)#channel-group 1 mode passive
B. Switch1(config-if)#channel-group 1 mode passive Switch2(config-if)#channel-group 1 mode active
C. Switch1{config-if)£channel-group 1 mode active Switch2(config-if)#channel-group 1 mode passive
D. Switch1(config-if)#channel-group 1 mode on Switch2(config-if)#channel-group 1 mode active

Answer: C

NEW QUESTION 520
- (Exam 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:
Graphical user interface, text, application, email Description automatically generated

NEW QUESTION 521
- (Exam 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

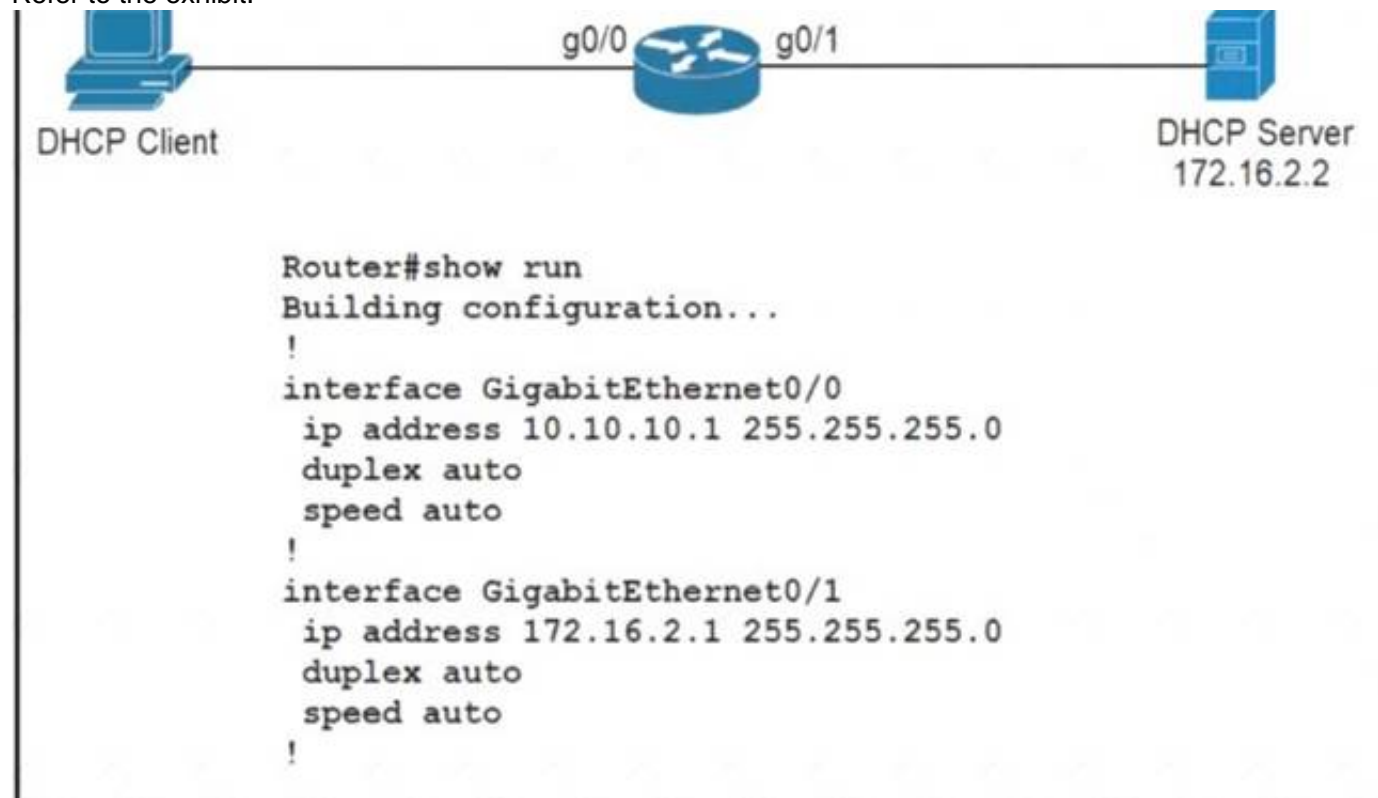C. 192.168.0.40
D. 192.168.3.5

Answer: B

NEW QUESTION 522
- (Exam Topic 3)
Refer to the exhibit.

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

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

Answer: C

NEW QUESTION 527
- (Exam Topic 3)
What is a function of a Next-Generation IPS?

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

Answer: D

NEW QUESTION 532
- (Exam Topic 3)
Which field within the access-request packet is encrypted by RADIUS?

A. authorized services
B. authenticator
C. username
D. password

Answer: D

NEW QUESTION 535
- (Exam Topic 3)
Which QoS per-hop behavior changes the value of the ToS field in the IPv4 packet header?

A. shaping
B. classification
C. policing
D. marking

Answer: D

NEW QUESTION 536
- (Exam 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.
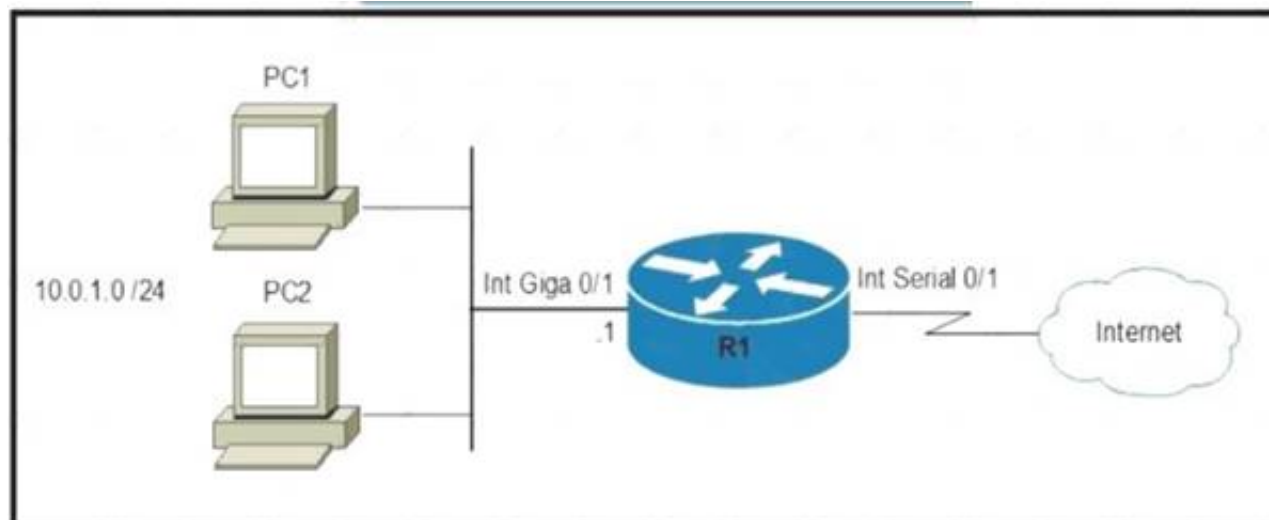* It must use the strongest password configurable. Which command must the engineer configure on the router?

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 538
- (Exam Topic 3)
Refer to the exhibit.

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

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

Answer: BE

NEW QUESTION 540
- (Exam Topic 3)
Refer to the exhibit.

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

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

Answer: C

NEW QUESTION 542
- (Exam Topic 3)

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

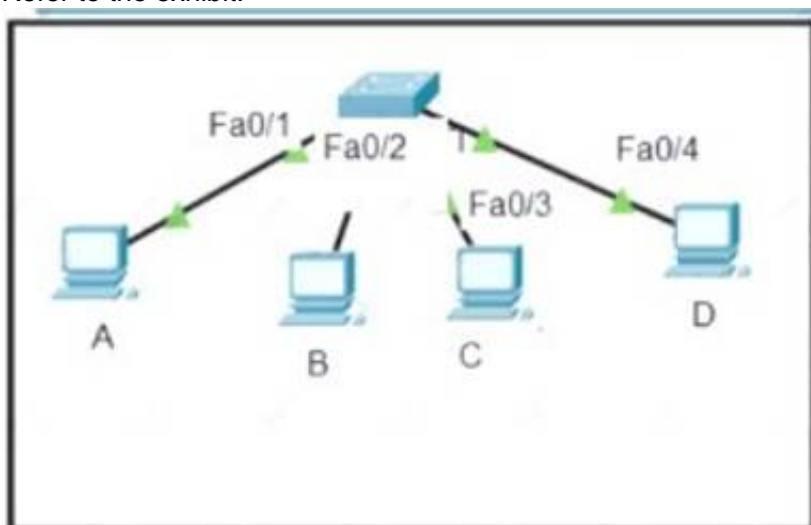| BPDUs received are forwarded to the system module. | | action |
BPDUs received from the system module are processed and transmitted.		action
Frames received from the attached segment are discarded.		action
Frames received from the attached segment are processed.		action
Switched frames received from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

A. Mastered
B. Not Mastered

Answer: A

Explanation:

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

NEW QUESTION 544
- (Exam Topic 3)
Refer to the exhibit.

Host A sent a data frame destined for host D

```
SwitchA#show mac-address table
       Mac Address Table
-----------------------------------------------
Vlan  Mac Address      Type     Ports
----  --------------   -------  -------
2     000c.859c.bb7b   DYNAMIC  Fa0/1
2     0010.11dc.3e91   DYNAMIC  Fa0/2
2     0041.45d7.c451   DYNAMIC  Fa0/3
SwitchA#
```
What does the switch do when it receives the frame from host A?

A. It drops the frame from the switch CAM table.
B. It floods the frame out of all ports except port Fa0/1.
C. It shuts down the port Fa0/1 and places it in err-disable mode.
D. It experiences a broadcast storm.

Answer: B

NEW QUESTION 547
- (Exam Topic 3)

Which WLC management connection type is vulnerable to man-in-the-middle attacks?

A. SSH
B. HTTPS
C. Telnet
D. console

Answer: C

NEW QUESTION 549
- (Exam Topic 3)
Refer to the exhibit.

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

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

A. interface FastEthernet0/0 ip helper-address 10.0.1.1 iaccess-list 100 permit udp host 10.0.1.1 eq bootps host 10.148.2.1
B. interface FastEthernot0/1 ip helper-address 10.0.1.1!access-list 100 permit tcp host 10.0.1.1 eq 67 host 10.148.2.1
C. interface FastEthernetO/0 ip helper-address 10.0.1.1 Iaccess-list 100 permit host 10.0.1.1 host 10.148.2.1 eq bootps
D. interface FastEthernet0/1 ip helper-address 10.0.1.1!access-list 100 permit udp host 10.0.1.1 eq bootps host 10.148.2.1

Answer: B

NEW QUESTION 553
- (Exam 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 556
- (Exam Topic 3)
Refer to the exhibit.

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

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

Answer: C

NEW QUESTION 560
- (Exam Topic 3)
What is the difference between IPv6 unicast and anycast addressing?

A. IPv6 anycast nodes must be explicitly configured to recognize the anycast address, but IPv6 unicast nodes require no special configuration
B. IPv6 unicast nodes must be explicitly configured to recognize the unicast address, but IPv6 anycastnodes require no special configuration
C. An individual IPv6 unicast address is supported on a single interface on one node but an IPv6 anycast address is assigned to a group of interfaces on multiple nodes.
D. Unlike an IPv6 anycast address, an IPv6 unicast address is assigned to a group of interfaces on multiple nodes

Answer: C

NEW QUESTION 561
- (Exam 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

event correlation and aggregation

fault detection

fault diagnosis and isolation

problem resolution

restoration of service

NEW QUESTION 563
- (Exam Topic 3)
Which Layer 2 switch function encapsulates packets for different VLANs so that the packets traverse the same port and maintain traffic separation between the VLANs?
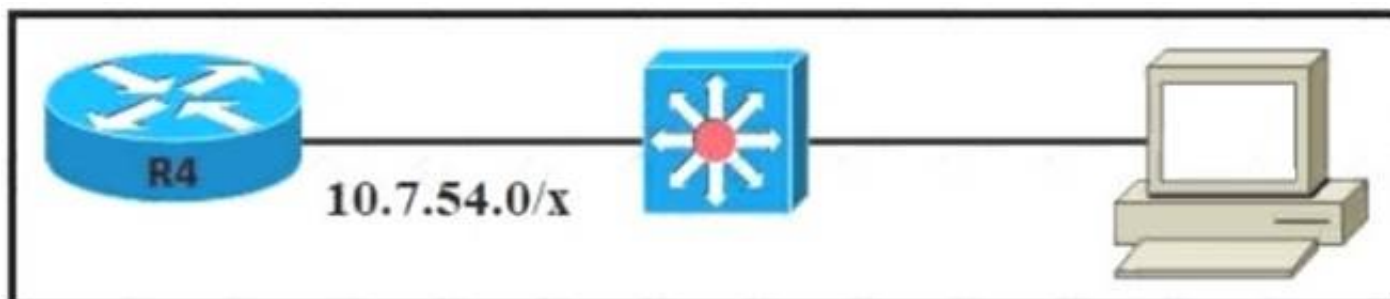
A. VLAN numbering
B. VLAN DSCP
C. VLAN tagging
D. VLAN marking

Answer: C

NEW QUESTION 566
- (Exam Topic 3)
Refer to the exhibit.

R4   10.7.54.0/x

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 569
- (Exam Topic 3)
Which type of IPv6 address is similar to a unicast address but is assigned to multiple devices on the same network at the same time?
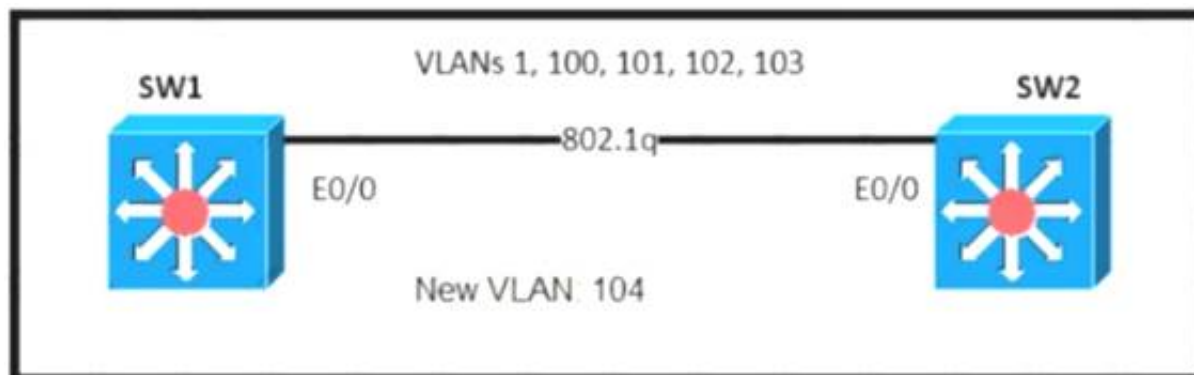
A. global unicast address
B. anycast address
C. multicast address
D. link-local address

Answer: B

NEW QUESTION 571
- (Exam Topic 3)
Refer to the exhibit.

An engineer is asked to insert the new VLAN into the existing trunk without modifying anything previously configured Which command accomplishes this task?

A. switchport trunk allowed vlan 100-104
B. switchport trunk allowed vlan add 104
C. switchport trunk allowed vlan all
D. switchport trunk allowed vlan 104
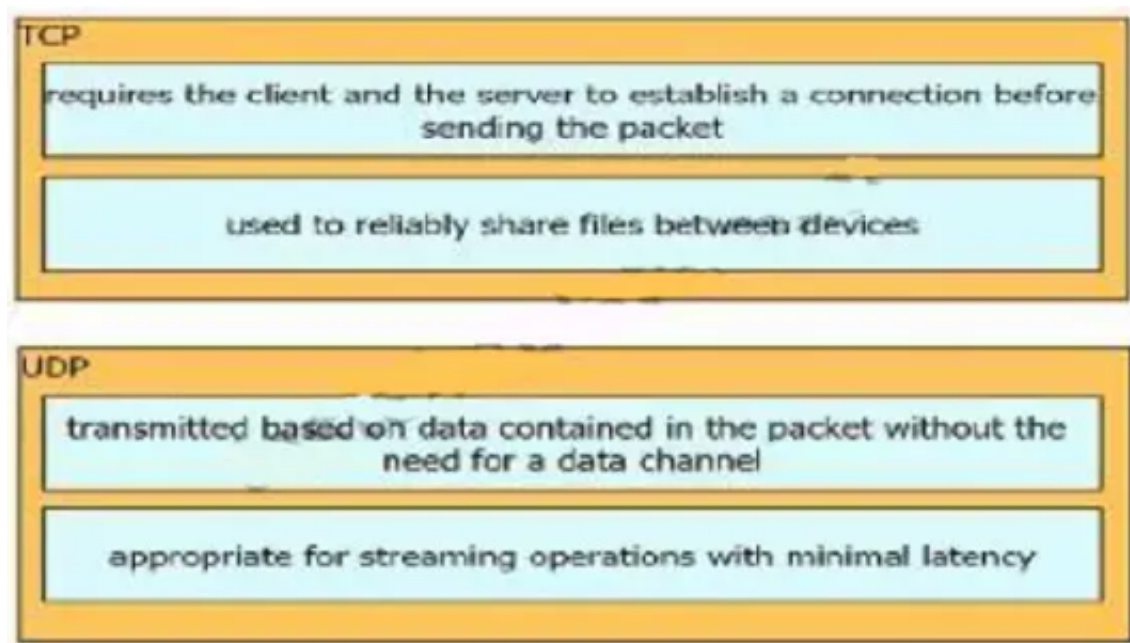
Answer: D

NEW QUESTION 574
- (Exam Topic 3)
Drag and drop the TCP or UDP details from the left onto their corresponding protocols on the right.

A. Mastered
B. Not Mastered

Answer: A

Explanation:

TCP

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

used to reliably share files between devices

UDP

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

appropriate for streaming operations with minimal latency

NEW QUESTION 577
- (Exam Topic 3)
A Cisco engineer must configure a single switch interface to meet these requirements
• accept untagged frames and place them in VLAN 20
• accept tagged frames in VLAN 30 when CDP detects a Cisco IP phone
Which command set must the engineer apply?
A)

switchport mode dynamic desirable
switchport access vlan 20
switchport trunk allowed vlan 30
switchport voice vlan 30

B)

switchport mode dynamic auto
switchport trunk native vlan 20
switchport trunk allowed vlan 30
switchport voice vlan 30

C)

switchport mode access
switchport access vlan 20
switchport voice vlan 30

D)

switchport mode trunk
switchport access vlan 20
switchport voice vlan 30

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

Answer: C

NEW QUESTION 581
- (Exam Topic 3)
Refer to the exhibit.

10.0.0.0 /30
Int Serial 0/1 .1
Int Serial 0/1
R1
R2
.2
Int Giga 0/1 .1
.2 Int Giga 0/1
10.0.1.0 /24
10.0.2.0 /24

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

A. router-id 10.0.0.15
B. neighbor 10.1.2.0 cost 180
C. ipospf priority 100

D. network 10.0.0.0 0.0.0.255 area 0

Answer: D

NEW QUESTION 586
- (Exam Topic 3)
OSPF must be configured between routers R1 and R2. Which OSPF configuration must be applied to router R1 to avoid a DR/BDR election?

A. router ospf 1network 192.168.1.1 0.0.0.0 area 0 interface e1/1ip address 192.168.1.1 255.255.255.252ip ospf network broadcast
B. router ospf 1network 192.168.1.1 0.0.0.0 area 0 interface e1/1ip address 192.168.1.1 255.255.255.252ip ospf network point-to-point
C. router ospf 1network 192.168.1.1 0.0.0.0 area 0 interface e1/1ip address 192.168.1.1 255.255.255.252ip ospf cost 0
D. router ospf 1network 192.168.1.1 0.0.0.0 area 0hello interval 15 interface e1/1Ip address 192.168.1.1 255.255.255.252

Answer: B

NEW QUESTION 591
- (Exam Topic 3)
Refer to the exhibit.

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

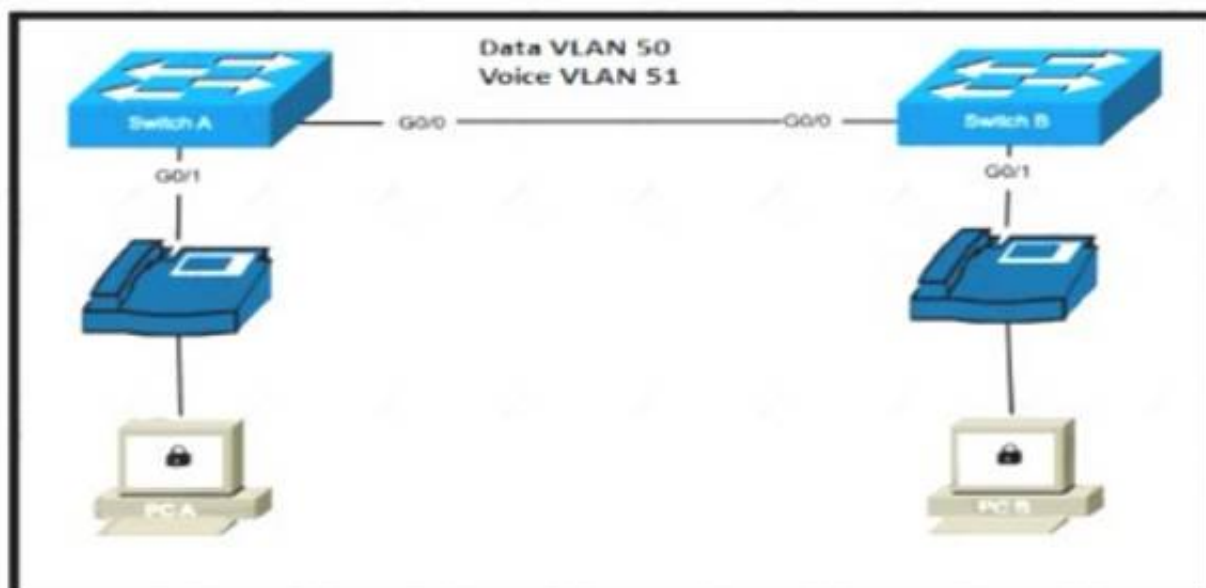What is a reason for poor performance on the network interface?

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

Answer: A

NEW QUESTION 592
- (Exam Topic 3)
Refer to the exhibit.

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

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

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

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

D)
```
SwitchA(config-if)#switchport mode trunk
SwitchA(config-if)#switchport trunk allowed vlan 50, 51
SwitchA(config-if)#mls qos trust cos
```
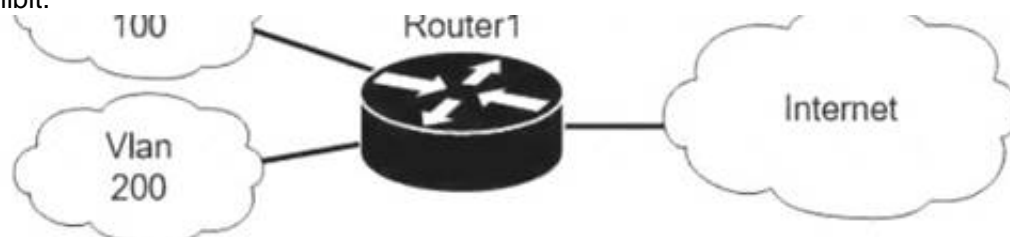
A. Option A
B. Option B
C. Option C
D. Option D

Answer: A

NEW QUESTION 595
- (Exam 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-if)#interface GigabitEthernet0/1
Router1(config-if)#ip nat inside
Router1(config-if)#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-if)#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.
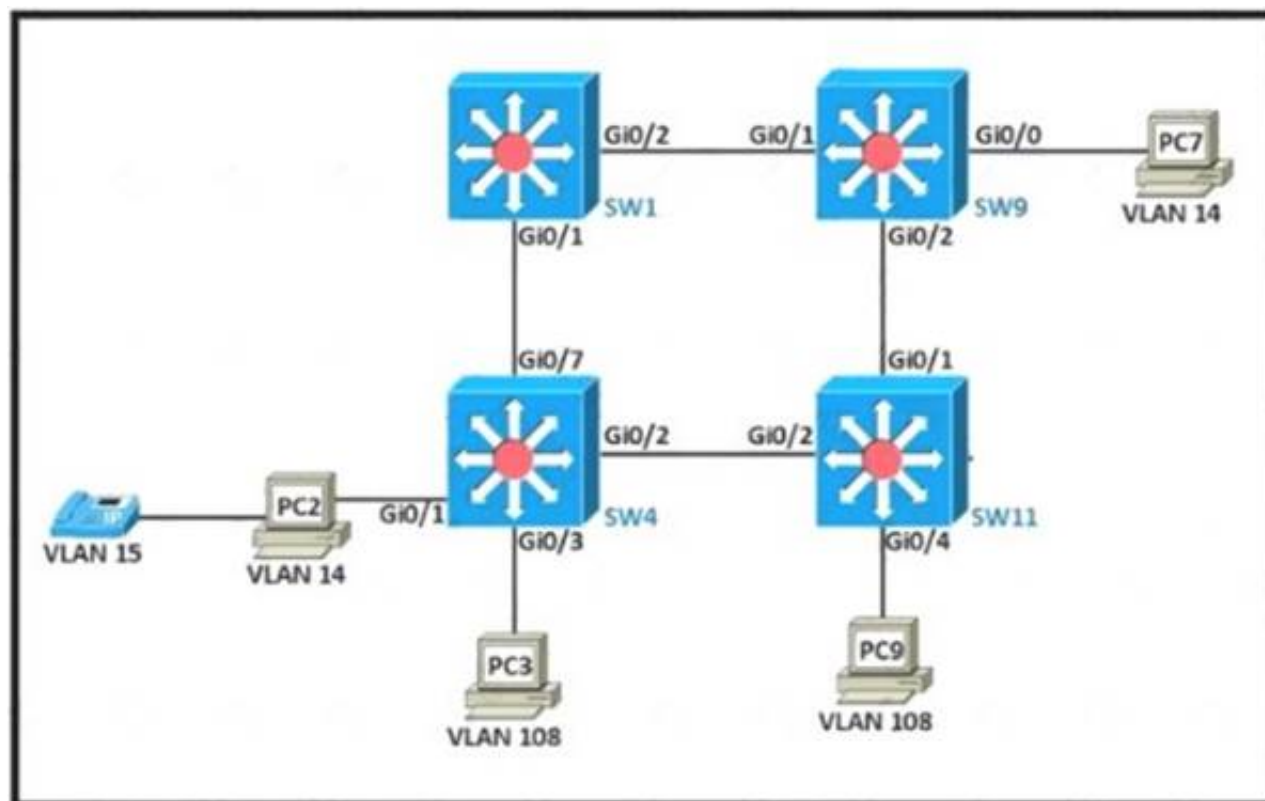C. Configure the ip nat outside command on another interface for VLAN 200.
D. Update the NAT INSIDF RANGFS ACL

Answer: B

NEW QUESTION 597
- (Exam 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 601
- (Exam Topic 3)
Drag and drop the characteristics of networking from the left onto the networking types on the right.

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

A. Mastered
B. Not Mastered

Answer: A

Explanation:

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 606
- (Exam Topic 3)
Refer to the exhibit.

```
TenGigabitEthernet0/0/0 is up, line protocol is up
  Hardware is BUILT-IN-2T+6X1GE, address is 74a0.2f7a.0123 (bia 74a0.2f7a.0123)
  Description: Uplink
  Internet address is 10.1.1.1/24
  MTU 1500 bytes, BW 10000000 Kbit/sec, DLY 10 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive not supported
  Full Duplex, 10000Mbps, link type is force-up, media type is unknown media type
  output flow-control is on, input flow-control is on
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:00, output 00:05:40, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/375/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 6160000 bits/sec, 1113 packets/sec
  5 minute output rate 11213000 bits/sec, 1553 packets/sec
     12662416065 packets input, 12607032232894 bytes, 0 no buffer
     Received 14117163 broadcasts (0 IP multicasts)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 26271385 multicast, 0 pause input
     7907779058 packets output, 5073750426832 bytes, 0 underruns
     0 output errors, 8662416065 collisions, 1 interface resets
     0 unknown protocol drops
     0 babbles, 0 late collision, 0 deferred
     0 lost carrier, 0 no carrier, 0 pause output
     0 output buffer failures, 0 output buffers swapped out
     1 carrier transitions
```

Traffic that is flowing over interface TenGigabitEthernet0/0 experiences slow transfer speeds. What is the reason for the issue?

A. heavy traffic congestion
B. a duplex incompatibility
C. a speed conflict
D. queuing drops

Answer: C

NEW QUESTION 611
- (Exam 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
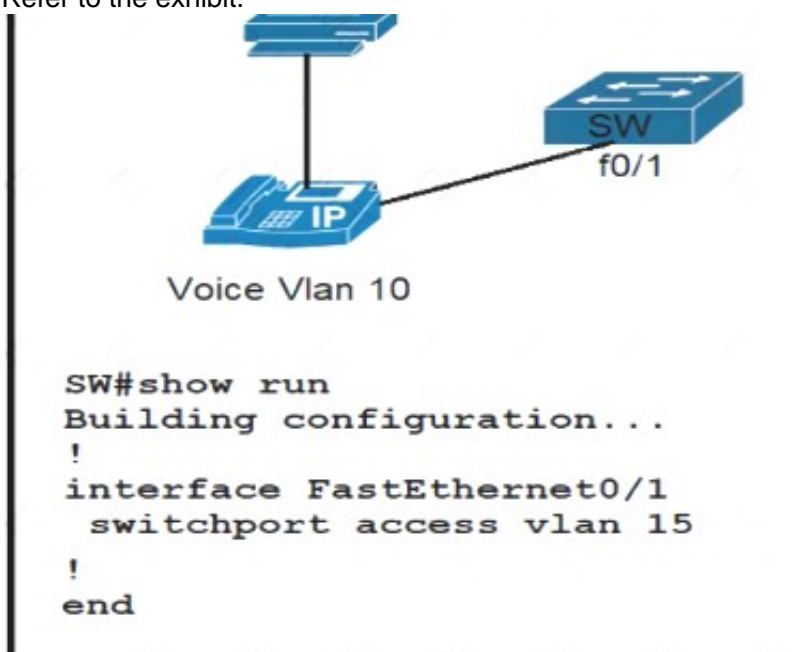
255.255.255.128

255.255.255.240

255.255.255.248

255.255.255.224

255.255.255.252

NEW QUESTION 613
- (Exam Topic 3)
Refer to the exhibit.

SW#show run
Building configuration...
!
interface FastEthernet0/1
  switchport access vlan 15
!
end

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

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

Answer: C

NEW QUESTION 618
- (Exam Topic 3)
An engineer is tasked to configure a switch with port security to ensure devices that forward unicasts multicasts and broadcasts are unable to flood the port The port must be configured to permit only two random MAC addresses at a time Drag and drop the required configuration commands from the left onto the sequence on the right Not all commands are used.

switchport mode access

switchport port-security

switchport port-security mac-address 0060.3EDD.77AB

switchport port-security mac-address 00D0.D3ED.622A

switchport port-security mac-address sticky

switchport port-security maximum 2

switchport port-security violation shutdown

1

2

3

4

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Diagram Description automatically generated

NEW QUESTION 620
- (Exam Topic 3)
Which action is taken by the data plane within a network device?

A. forwards traffic to the next hop
B. constructs a routing table based on a routing protocol
C. provides CLI access to the network device
D. looks up an egress interface in the forwarding information base

Answer: A

NEW QUESTION 622
- (Exam Topic 3)
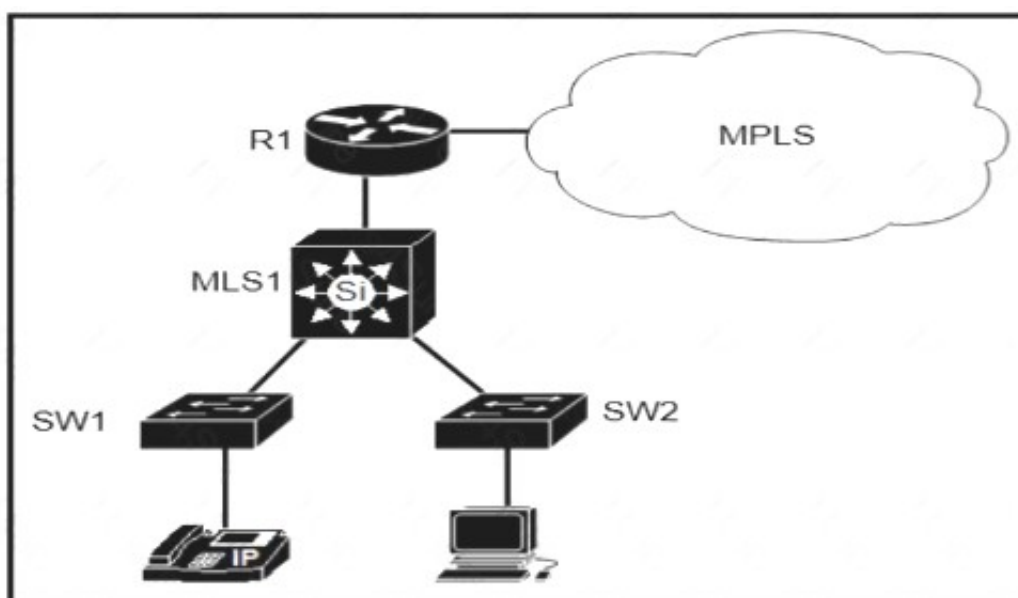Which PoE mode enables powered-device detection and guarantees power when the device is detected?

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

Answer: B

NEW QUESTION 624
- (Exam 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 627
- (Exam Topic 3)
Refer to the exhibit.

A network engineer must update the configuration on Switch2 so that it sends LLDP packets every minute and the information sent via LLDP is refreshed every 3 minutes Which configuration must the engineer apply?

A)

Switch2(config)#lldp timer 60
Switch2(config)#lldp holdtime 180

B)

Switch2(config)#lldp timer 60
Switch2(config)#lldp tlv-select 180

C)

Switch2(config)#lldp timer 1
Switch2(config)#lldp holdtime 3

D)

Switch2(config)#lldp timer 1
Switch2(config)#lldp tlv-select 3

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

Answer: A

NEW QUESTION 629
- (Exam 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 634
- (Exam 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 638
- (Exam 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 643
- (Exam Topic 3)
Refer to the exhibit.

```
R1#show run
!
router ospf 1
auto-cost reference-bandwidth 100000
!
interface GigabitEthernet0/0
bandwidth 10000000
!
interface GigabitEthernet0/1
bandwidth 100000000
!
interface GigabitEthernet0/2
ip ospf cost 100
!
interface GigabitEthernet0/3
ip ospf cost 1000
end
```

Router R1 resides in OSPF Area 0. After updating the R1 configuration to influence the paths that it will use to direct traffic, an engineer verified that each of the four Gigabit interfaces has the same route to 10.10.0.0/16. Which interface will R1 choose to send traffic to reach the route?

A. GigabitEthernet0/0
B. GigabltEthornet0/1
C. GigabitEthernet0/2
D. GigabitEthernet0/3

Answer: B

NEW QUESTION 647
- (Exam Topic 2)
What is a role of access points in an enterprise network?

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

Answer: A

NEW QUESTION 651
- (Exam 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
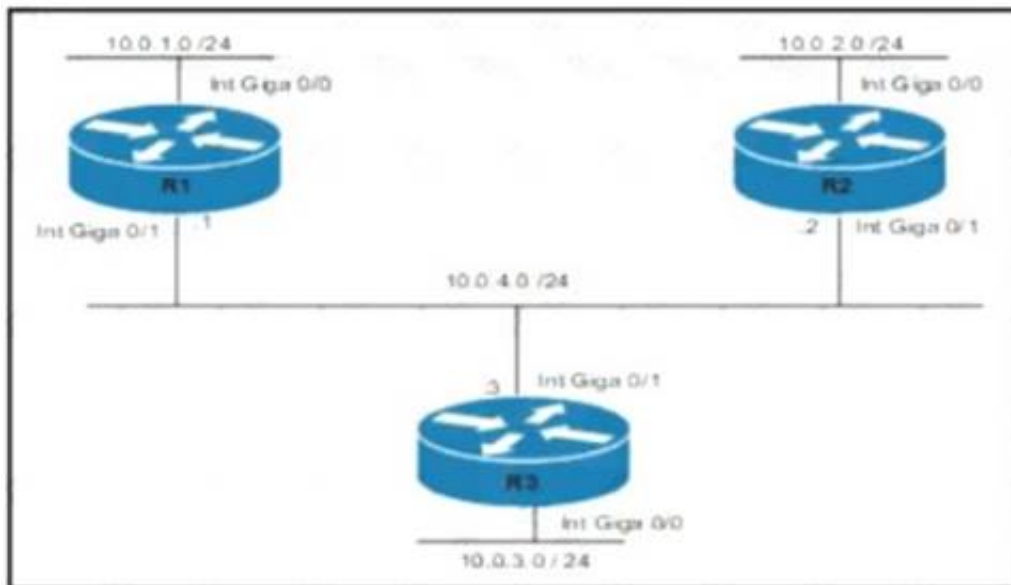
Answer: D

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 654
- (Exam 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)i=ip ospf priority 1
D. R3(config)#interface Gig0/1 R3(config-if)#ip ospf priority 0

Answer: B

NEW QUESTION 657
- (Exam Topic 2)
With REST API, which standard HTTP header tells a server which media type is expected by the client?

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

Answer: D

Explanation:
Accept header is a way for a client to specify the media type of the response content it is expecting and Content-type is a way to specify the media type of request being sent from the client to the server.
http://www.java-allan
dsundry.com/2012/08/accept-header-vs-content-type-header.html#:~:text=Accept%20and%20Content%2Dtype

NEW QUESTION 658
- (Exam Topic 2)
What is the primary different between AAA authentication and authorization?

A. Authentication verifies a username and password, and authorization handles the communication between the authentication agent and the user database.
B. Authentication identifies a user who is attempting to access a system, and authorization validates the users password
C. Authentication identifies and verifies a user who is attempting to access a system, and authorization controls the tasks the user can perform.
D. Authentication controls the system processes a user can access and authorization logs the activities the user initiates

Answer: C

Explanation:
AAA stands for Authentication, Authorization and Accounting.+ Authentication: Specify who you are (usually via login username & password)+ Authorization: Specify what actions you can do, what resource you can access+ Accounting: Monitor what you do, how long you do it (can be used for billing and auditing)An example of AAA is shown below:+ Authentication: "I am a normal user. My username/password is user_tom/learnforever"+ Authorization: "user_tom can access LearnCCNA server via HTTP and FTP"+ Accounting: "user_tom accessed LearnCCNA server for 2 hours". This user only uses "show" commands.

NEW QUESTION 660
- (Exam 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 663
- (Exam 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 668
- (Exam 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 207.165.200.250, Serial0/0/0
O       172.16.3.0/28 [110/84437] via 207.165.200.254, 00:00:28, Serial0/0/1
        207.165.200.0/24 is variably subnetted, 6 subnets, 2 masks
C       207.165.200.244/30 is directly connected, Serial0/1/0
L       207.165.200.245/32 is directly connected, Serial0/1/0
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
```

A packet is being sent across router R1 to host 172.163.3.14. To which destination does the router send the packet?

A. 207.165.200.246 via Serial0/1/0
B. 207.165.200.254 via Serial0/0/1
C. 207.165.200.254 via Serial0/0/0
D. 207.165.200.250 via Serial/0/0/0

Answer: B

NEW QUESTION 669
- (Exam Topic 2)
What are two reasons that cause late collisions to increment on an Ethernet interface? (Choose two)

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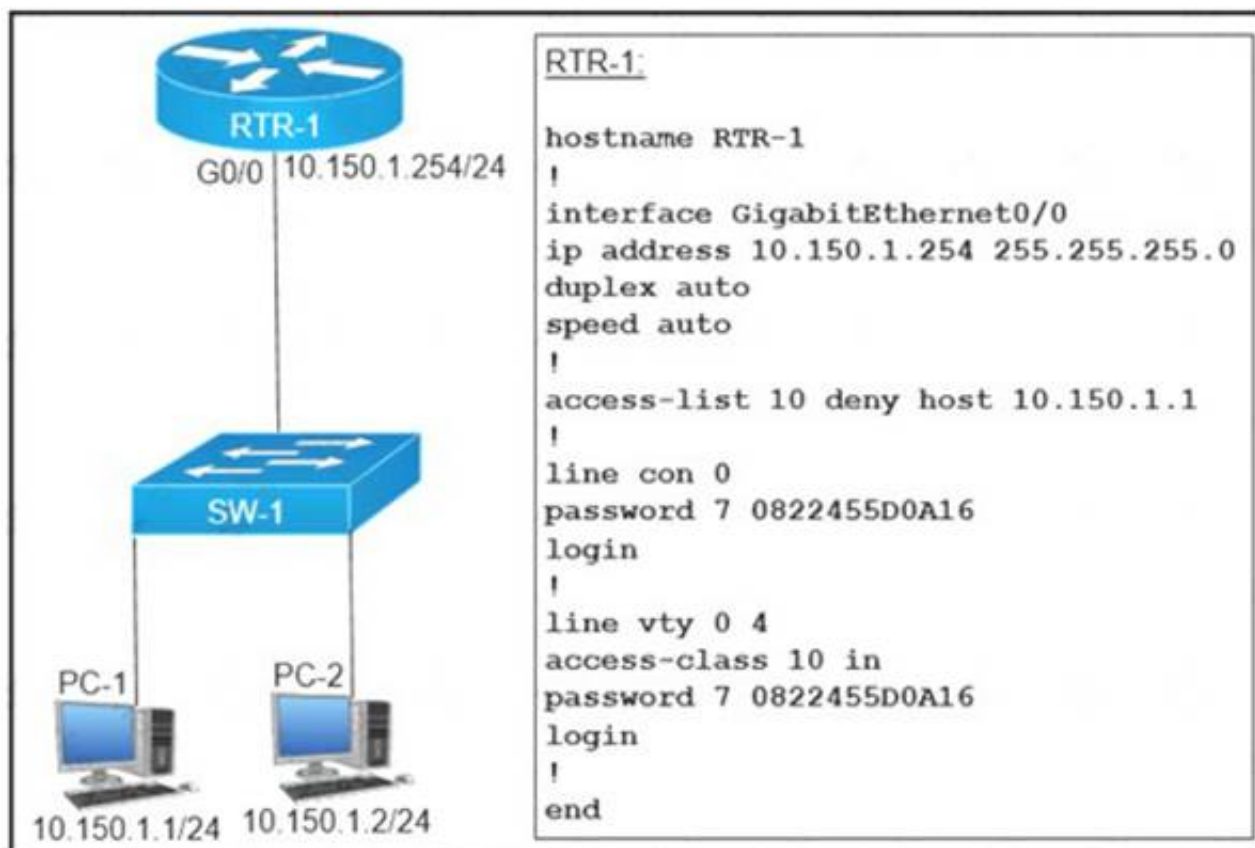
Answer: BC

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

NEW QUESTION 670
- (Exam Topic 2)
Refer to the exhibit.

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

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

Answer: A

NEW QUESTION 674
- (Exam 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 5GH2 access points?

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

Answer: D

NEW QUESTION 679
- (Exam Topic 2)
The service password-encryption command is entered on a router. What is the effect of this configuration?

A. restricts unauthorized users from viewing clear-text passwords in the running configuration
B. encrypts the password exchange when a VPN tunnel is established
C. prevents network administrators from configuring clear-text passwords
D. protects the VLAN database from unauthorized PC connections on the switch

Answer: A

NEW QUESTION 683
- (Exam 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 688
- (Exam 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 691
- (Exam Topic 2)
which IPv6 address block forwards packets to a multicast address rather than a unicast address?

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

Answer: D

NEW QUESTION 695
- (Exam Topic 2)
Which action must be taken to assign a global unicast IPv6 address on an interface that is derived from the MAC address of that interface?

A. configure a stateful DHCPv6 server on the network
B. enable SLAAC on an interface
C. disable the EUI-64 bit process
D. explicitly assign a link-local address

Answer: A

NEW QUESTION 700
- (Exam 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 703
- (Exam 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 707
- (Exam 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 710
- (Exam 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 712
- (Exam 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 713
- (Exam 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 718
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