Cisco

Exam Questions 200-301

Cisco Certified Network Associate

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

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

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

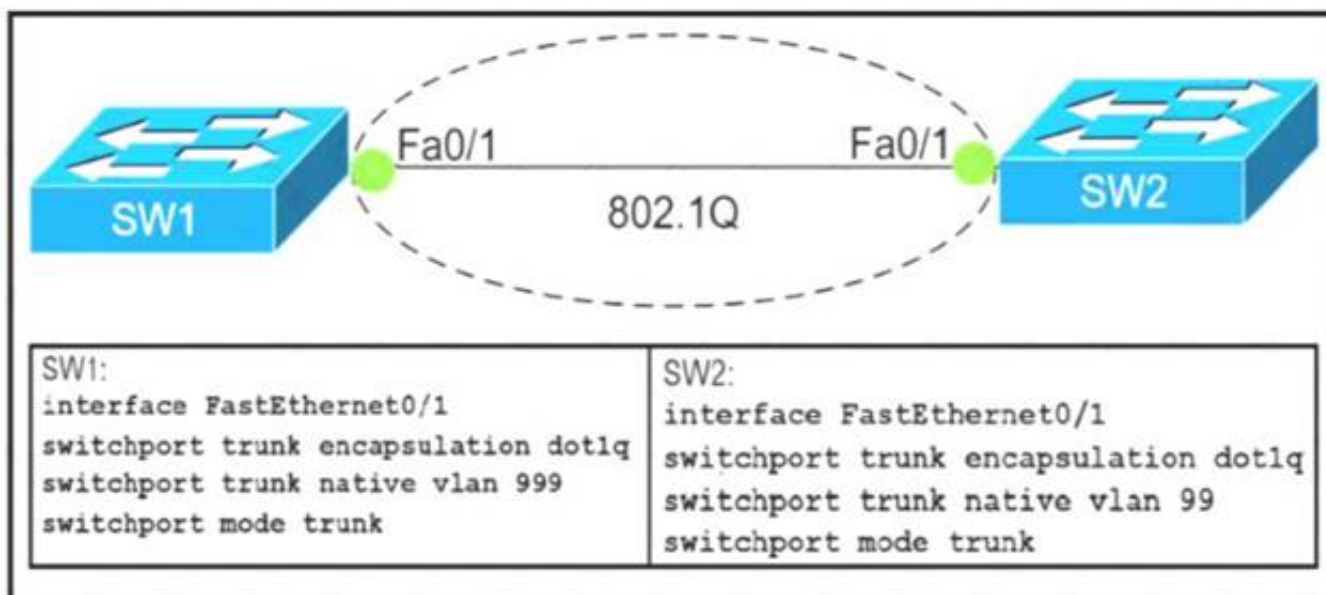What action establishes the OSPF neighbor relationship without forming an adjacency?

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

Answer: A

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


```
SW1:
interface FastEthernet0/1
switchport trunk encapsulation dot1q
switchport trunk native vlan 999
switchport mode trunk
```

```
SW2:
interface FastEthernet0/1
switchport trunk encapsulation dot1q
switchport trunk native vlan 99
switchport mode trunk
```

Which action do the switches take on the trunk link?

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

Answer: B

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

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

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

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

```
R1(config)#username admin privilege 15 secret p@ss1234
R1(config-if)#line vty 0 4
R1(config-line)#login local

R1(config)#username admin secret p@ss1234
R1(config-if)#line vty 0 4
R1(config-line)#login local
R1(config)#enable secret p@ss1234

R1(config)#username admin
R1(config-if)#line vty 0 4
R1(config-line)#password p@ss1234
R1(config-line)#transport input telnet

R1(config)#username admin
R1(config-if)#line vty 0 4
R1(config-line)#password p@ss1234
```

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

Answer: A

NEW QUESTION 4
- (Exam Topic 2)
Refer to the exhibit.
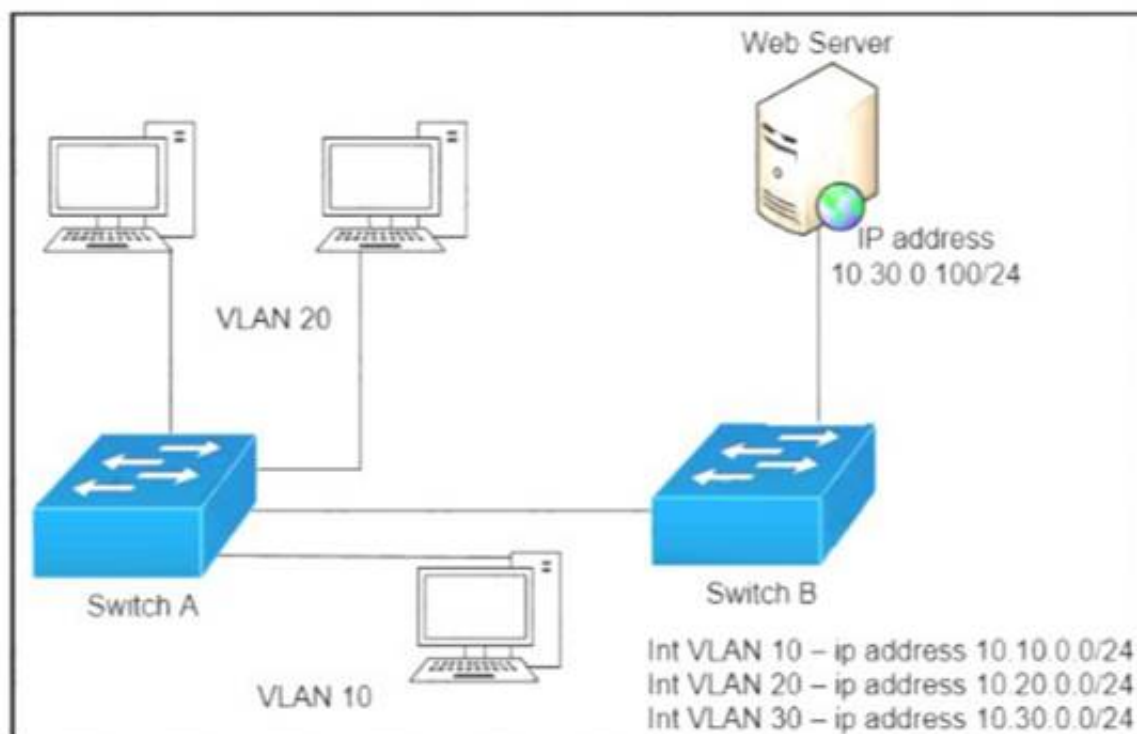
A network engineer must block access for all computers on VLAN 20 to the web server via HTTP All other computers must be able to access the web server Which configuration when applied to switch A accomplishes this task?

```
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 5
- (Exam Topic 2)
What are two characteristics of a public cloud Implementation? (Choose two.)

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

Answer: CE

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

NEW QUESTION 6
- (Exam Topic 2)
Which command must be entered to configure a DHCP relay?

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

Answer: A

NEW QUESTION 7
- (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 8
- (Exam Topic 2)
Which command must be entered when a device is configured as an NTP server?

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

Answer: D

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

NEW QUESTION 9
- (Exam Topic 2)
Drag and drop to the characteristics of networking from the left onto the correct networking types on the right.

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

A. Mastered
B. Not Mastered

Answer: A

Explanation:

Controller-Cased Networking
- focused on network
- user white list security model
- user input is a policy

Traditional networking
- focused on devices
- user black list security model
- user input is a configuration

NEW QUESTION 10

- (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 10
- (Exam Topic 2)
An engineer is configuring NAT to translate the source subnet of 10.10.0.0/24 to any of three addresses 192.168.30.1, 192.168.3.2, 192.168.3.3 Which configuration should be used?

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

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

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

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

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

Answer: C

NEW QUESTION 15
- (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 18
- (Exam Topic 2)
When OSPF learns multiple paths to a network, how does it select a route?

A. It multiple the active K value by 256 to calculate the route with the lowest metric.
B. For each existing interface, it adds the metric from the source router to the destination to calculate the route with the lowest bandwidth.
C. It divides a reference bandwidth of 100 Mbps by the actual bandwidth of the existing interface to calculate the router with the lowest cost.
D. It count the number of hops between the source router and the destination to determine the router with the lowest metric

Answer: C

NEW QUESTION 21
- (Exam Topic 2)
Refer to the exhibit.
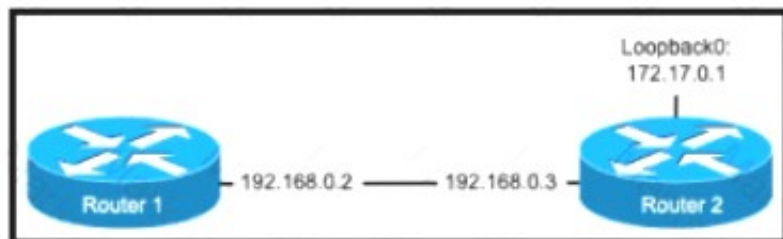
The nip server 192.168.0.3 command has been configured on router 1 to make it an NTP client of router 2. Which command must be configured on router 2 so that it operates in server-only mode and relies only on its internal clock?

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

Answer: B

Explanation:
• To use internal clock of this router, use any configured IP address in any interface of this router.

NEW QUESTION 26
- (Exam Topic 2)
Which two primary drivers support the need for network automation? (Choose two.)

A. Eliminating training needs
B. Increasing reliance on self-diagnostic and self-healing
C. Policy-derived provisioning of resources
D. Providing a ship entry point for resource provisioning
E. Reducing hardware footprint

Answer: CD

NEW QUESTION 30
- (Exam Topic 2)
A user configured OSPF in a single area between two routers A serial interface connecting R1 and R2 is running encapsulation PPP By default which OSPF network type is seen on this interface when the user types show ip ospf interface on R1 or R2?

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

Answer: C

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

NEW QUESTION 32
- (Exam Topic 1)
What are two characteristics of the distribution layer in a three-tier network architecture? (Choose two.)

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

Answer: BC

NEW QUESTION 35
- (Exam Topic 1)
Refer to the exhibit.
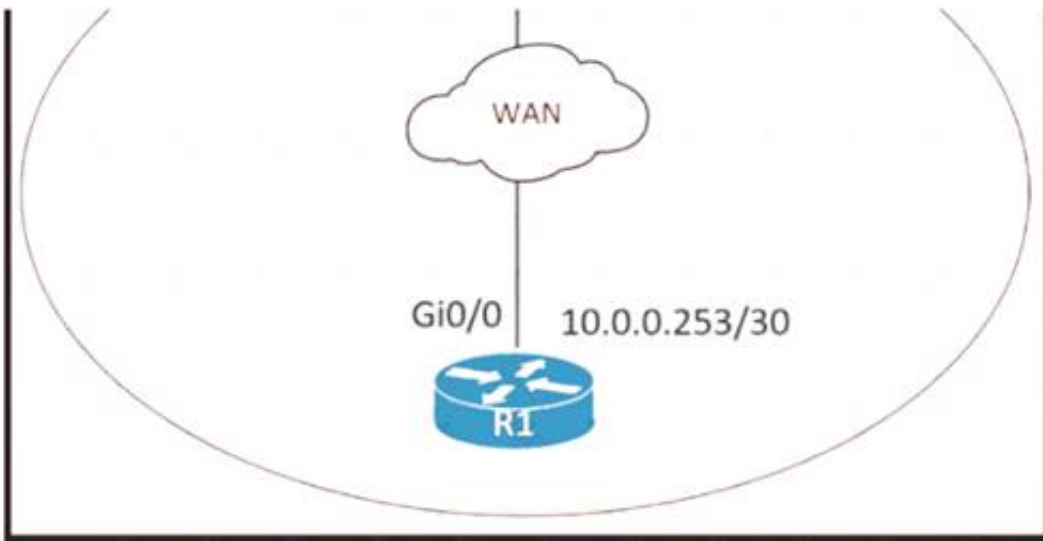
An administrator must turn off the Cisco Discovery Protocol on the port configured with address last usable address in the 10.0.0.0/30 subnet. Which command set meets the requirement?

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

Answer: D

NEW QUESTION 36
- (Exam Topic 1)
Which virtual MAC address is used by VRRP group 1?

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

Answer: C

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

NEW QUESTION 37
- (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 38
- (Exam Topic 1)
What occurs when overlapping Wi-Fi channels are implemented?

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

Answer: C

NEW QUESTION 39
- (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 43

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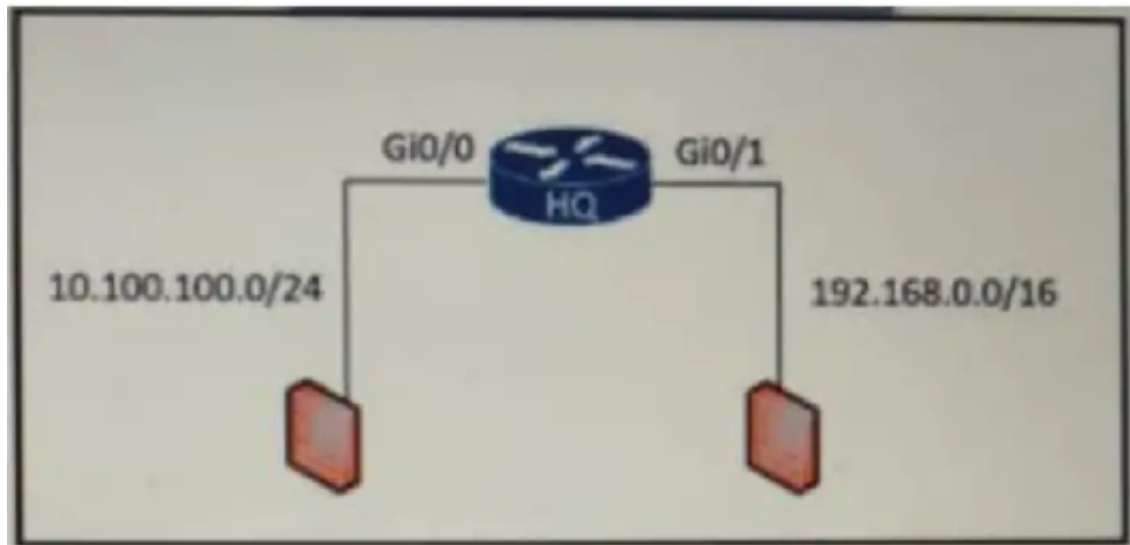
A. act as routers to connect a user to the service prowler network
B. a threat to the network if they are compromised
C. support inter-VLAN connectivity
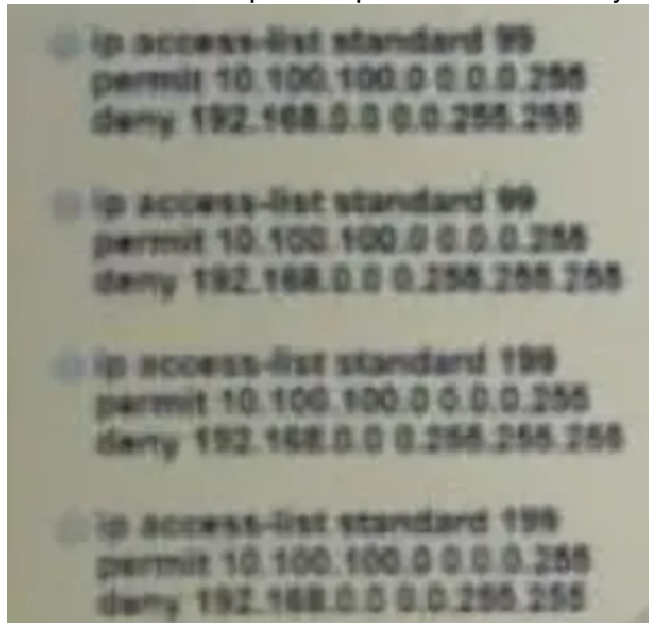D. enforce policies for campus-wide traffic going to the internet

Answer: B

NEW QUESTION 46
- (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?

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

Answer: A

NEW QUESTION 51
- (Exam Topic 1)
Which device performs stateful inspection of traffic?

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

Answer: A

NEW QUESTION 55
- (Exam Topic 1)
Drag and drop the QoS congestion management terms from the left onto the description on the right.

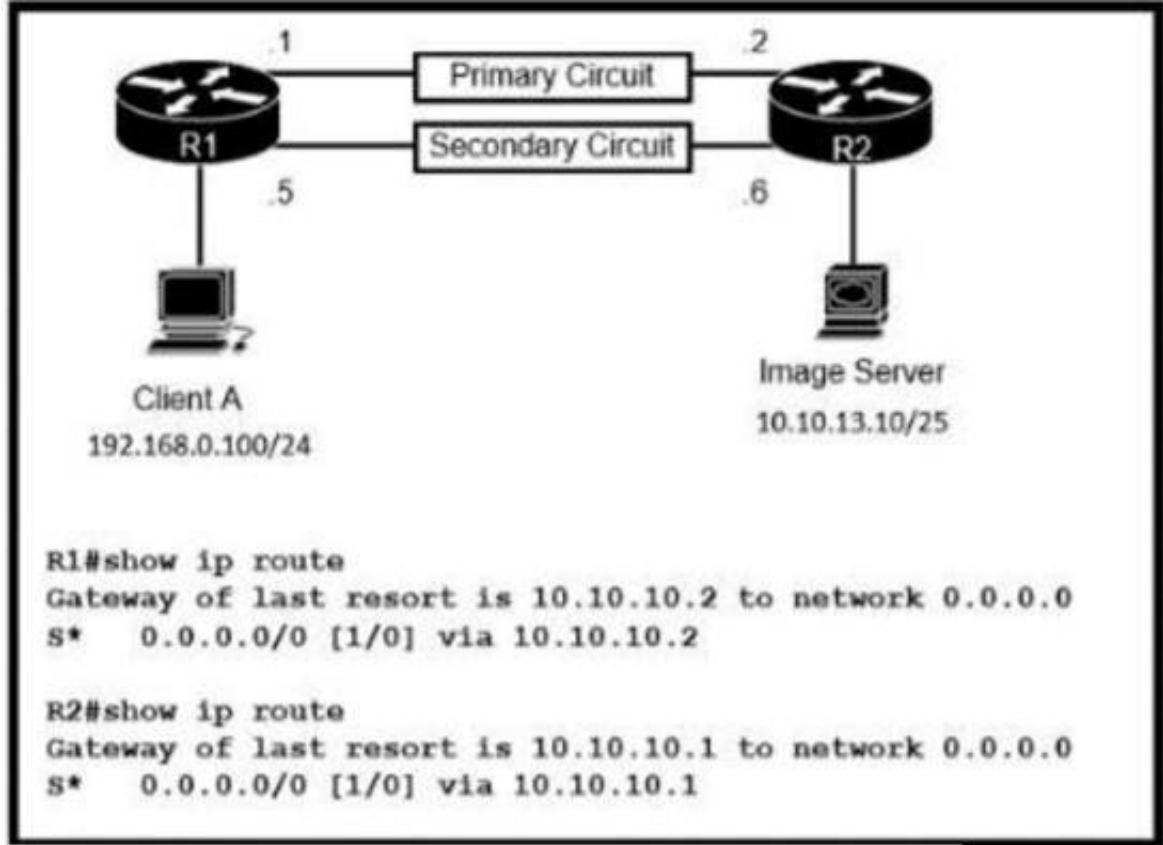| CBWGQ | | places packets into one of four priority-based queues |
CQ		provides guaranteed bandwidth to a specified class of traffic
FIFO		provides minimum guaranteed bandwidth to one or more flows
PQ		services a specified number of bytes in one queue before continuing to the next queue
WFQ		uses store-and-forward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

A. Mastered
B. Not Mastered

Answer: A

Explanation:

	WFQ
	CBWGQ
	FIFO
	PQ
	CQ

NEW QUESTION 57
- (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 59
- (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 62
- (Exam Topic 1)
Drag and drop the attack-mitigation techniques from the left onto the Types of attack that they mitigate on the right.

Answer Area

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

A. Mastered
B. Not Mastered

Answer: A

Explanation:

Answer Area

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

NEW QUESTION 63
- (Exam Topic 1)
What is a characteristic of a SOHO network?

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

Answer: B

NEW QUESTION 67
- (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 68
- (Exam Topic 1)
Which implementation provides the strongest encryption combination for the wireless environment?

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

Answer: A

NEW QUESTION 72
- (Exam Topic 1)
Refer to the exhibit.


```
Router2#show ip route
Gateway of last resort is not set

     10.0.0.0/8 is variably subnetted, 4 subnets, 2 masks
C       10.10.10.8/30 is directly connected, FastEthernet0/2
C       10.10.10.12/30 is directly connected, FastEthernet0/1
O       10.10.13.0/25 [110/11] via 10.10.10.9,   00:00:03, FastEthernet0/2
                      [110/11] via 10.10.10.13, 00:00:03, FastEthernet0/1
C       10.10.10.4/30 is directly connected, FastEthernet0/2
```
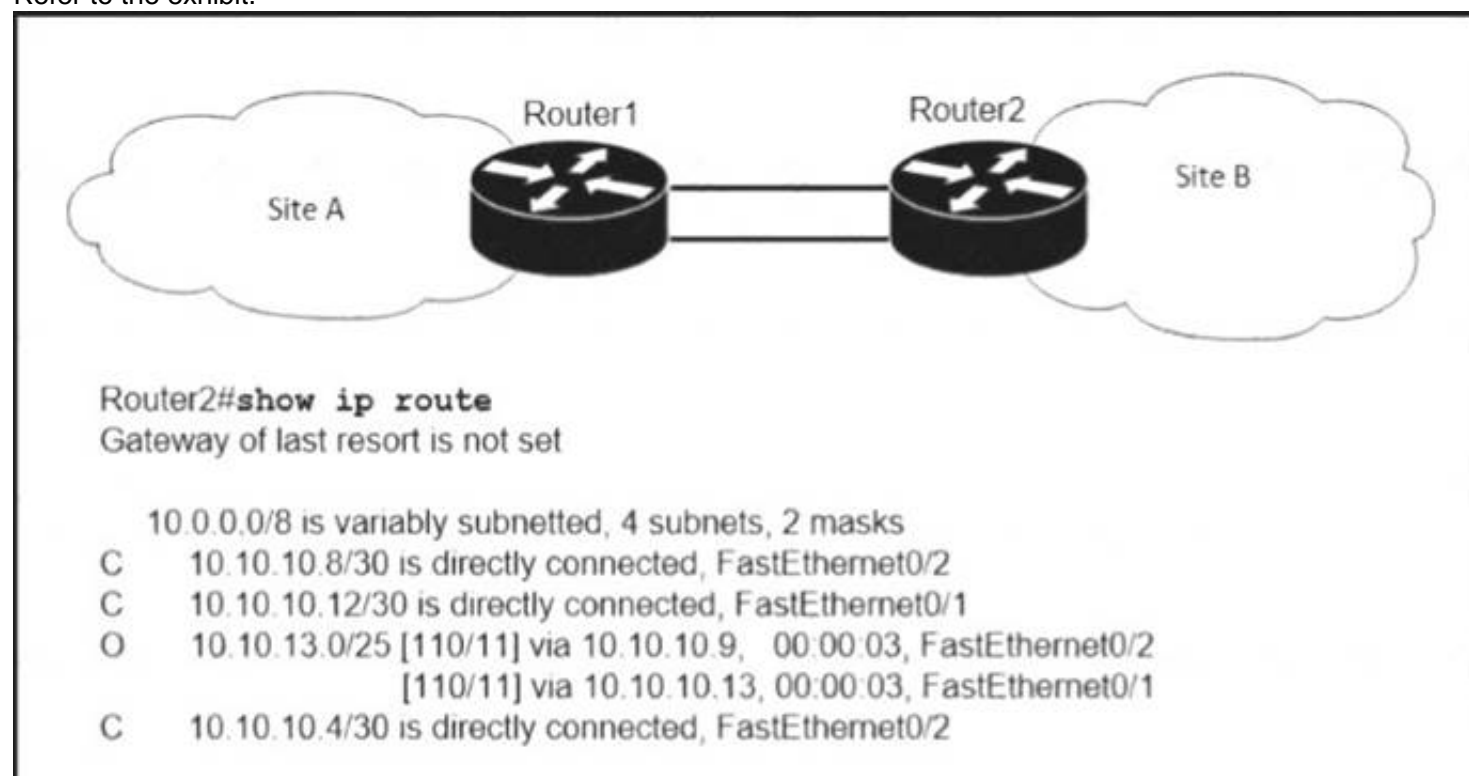
If OSPF Is running on this network, how does Router2 handle traffic from Site B to 10.10.13.128/25 at Site A?

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 76
- (Exam Topic 1)
which purpose does a northbound API serve in a controller-based networking architecture?

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

Answer: D

NEW QUESTION 80

- (Exam Topic 1)
Drag and drop the descriptions of file-transfer protocols from the left onto the correct protocols on the right.

provides reliability when loading an IOS image upon boot up	FTP
does not require user authentication	
uses port 69	
uses ports 20 and 21	TFTP
uses TCP	
uses UDP	

A. Mastered
B. Not Mastered

Answer: A

Explanation:

provides reliability when loading an IOS image upon boot up	FTP
does not require user authentication	provides reliability when loading an IOS image upon boot up
uses port 69	uses ports 20 and 21
uses ports 20 and 21	uses TCP
uses TCP	TFTP
uses UDP	does not require user authentication
	uses port 69
	uses UDP

NEW QUESTION 84
- (Exam Topic 1)
Refer to the exhibit.
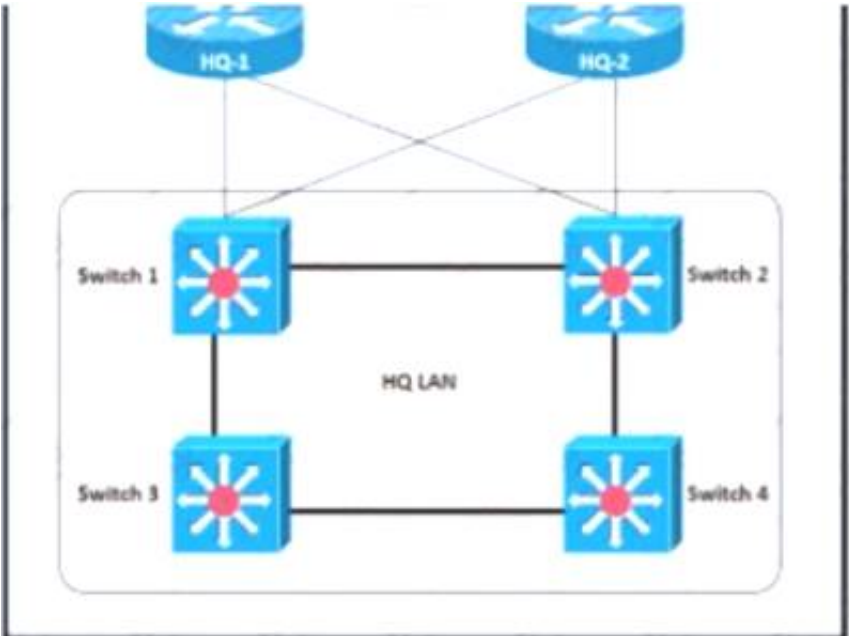
After the election process what is the root bridge in the HQ LAN?

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 85
- (Exam Topic 1)
What is the purpose of traffic shaping?

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

Answer: B

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

NEW QUESTION 88
- (Exam Topic 1)
Drag and drop the functions of DHCP from the left onto any of the positions on the right Not all functions are used

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Graphical user interface, text, application, email Description automatically generated

NEW QUESTION 89
- (Exam Topic 1)
Which state does the switch port move to when PortFast is enabled?

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

Answer: A

NEW QUESTION 93

- (Exam Topic 5)

Guidelines

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

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

All physical cabling between the two switches is installed. Configure the network connectivity between the switches using the designated VLANs and interfaces.
* 1. Configure VLAN 100 named Compute and VLAN 200 named Telephony where required for each task.
* 2. Configure Ethernet0/1 on SW2 to use the existing VLAN named Available.
* 3. Configure the connection between the switches using access ports.
* 4. Configure Ethernet0/1 on SW1 using data and voice VLANs.
* 5. Configure Ethemet0/1 on SW2 so that the Cisco proprietary neighbor discovery protocol is turned off for the designated interface only.
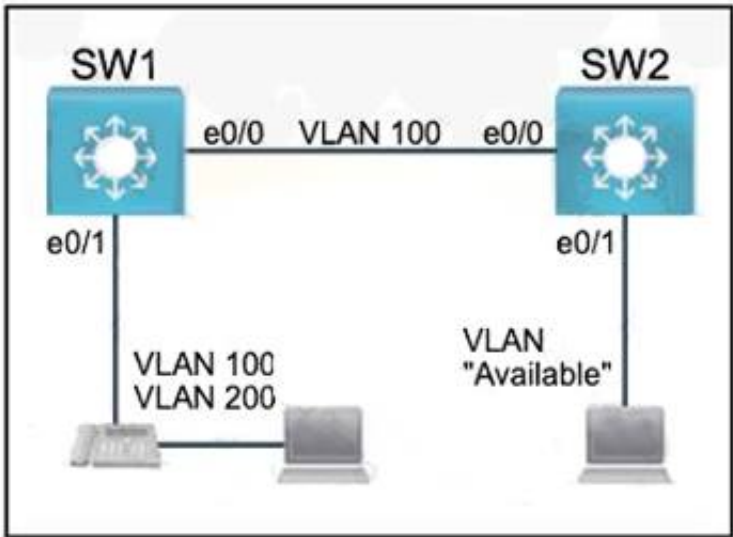
A. Mastered
B. Not Mastered

Answer: A

Explanation:
Answer as below configuration:
on sw1 enable conf t vlan 100
name Compute vlan 200
name Telephony int e0/1
switchport voice vlan 200 switchport access vlan 100 int e0/0
switchport mode access do wr
on sw2
Vlan 99
Name Available Int e0/1
Switchport access vlan 99 do wr

NEW QUESTION 96
- (Exam Topic 5)

| Guidelines | Topology | Tasks | | R1 | R2 | R3 |

Guidelines

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

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

R1#

Connectivity between three routers has been established, and IP services must be configured jn the order presented to complete the implementation Tasks assigned include configuration of NAT, NTP, DHCP, and SSH services.
* 1. All traffic sent from R3 to the R1 Loopback address must be configured for NAT on R2. All source addresses must be translated from R3 to the IP address of Ethernet0/0 on R2, while using only a standard access list named NAT To verify, a ping must be successful to the R1 Loopback address sourced from R3. Do not use NVI NAT configuration.
* 2. Configure R1 as an NTP server and R2 as a client, not as a peer, using the IP address of the R1 Ethernet0/2 interface. Set the clock on the NTP server for midnight on January 1, 2019.
* 3. Configure R1 as a DHCP server for the network 10.1.3.0/24 in a pool named TEST. Using a single command, exclude addresses 1-10 from the range. Interface Ethernet0/2 on R3 must be issued the IP address of 10.1.3.11 via DHCP.
* 4. Configure SSH connectivity from R1 to R3, while excluding access via other remote connection protocols. Access for user root and password Cisco must be set on router R3 using RSA and 1024 bits. Verify connectivity using an SSH session from router R1 using a destination address of 10.1.3.11. Do NOT modify console access or line numbers to accomplish this task.

A. Mastered
B. Not Mastered

Answer: A

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

NEW QUESTION 100
- (Exam Topic 5)
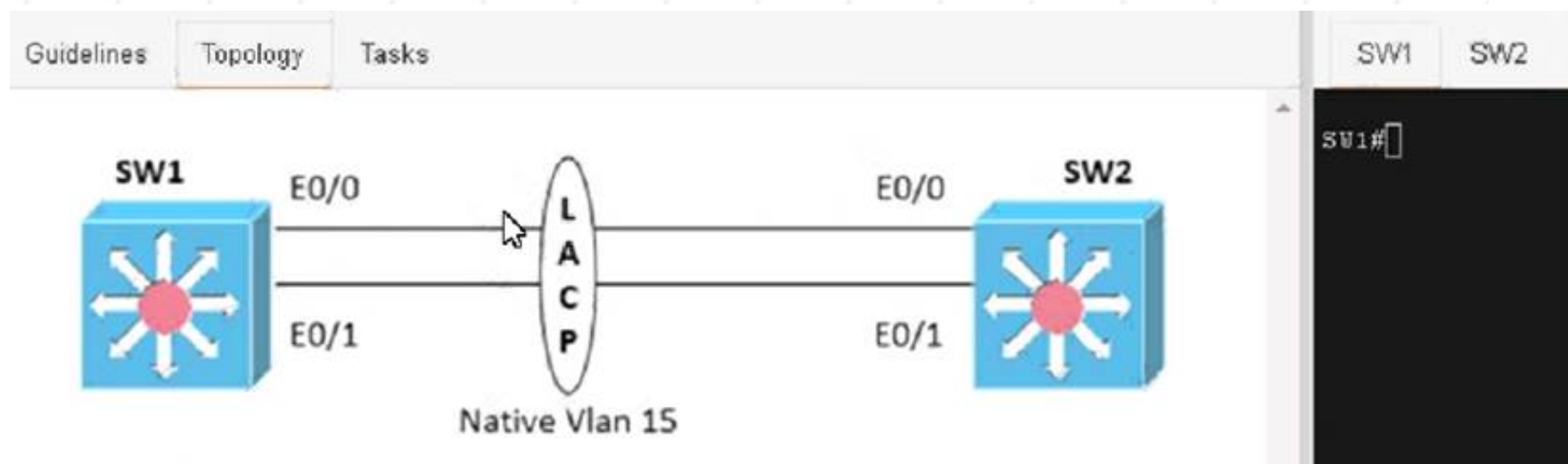Physical connectivity is implemented between the two Layer 2 switches, and the network connectivity between them must be configured
* 1. Configure an LACP EtherChannel and number it as 1; configure it between switches SW1 and SVV2 using interfaces Ethernet0/0 and Ethernet0/1 on both sides. The LACP mode must match on both ends
* 2. Configure the EtherChannel as a trunk link.
* 3. Configure the trunk link with 802.1 q tags.
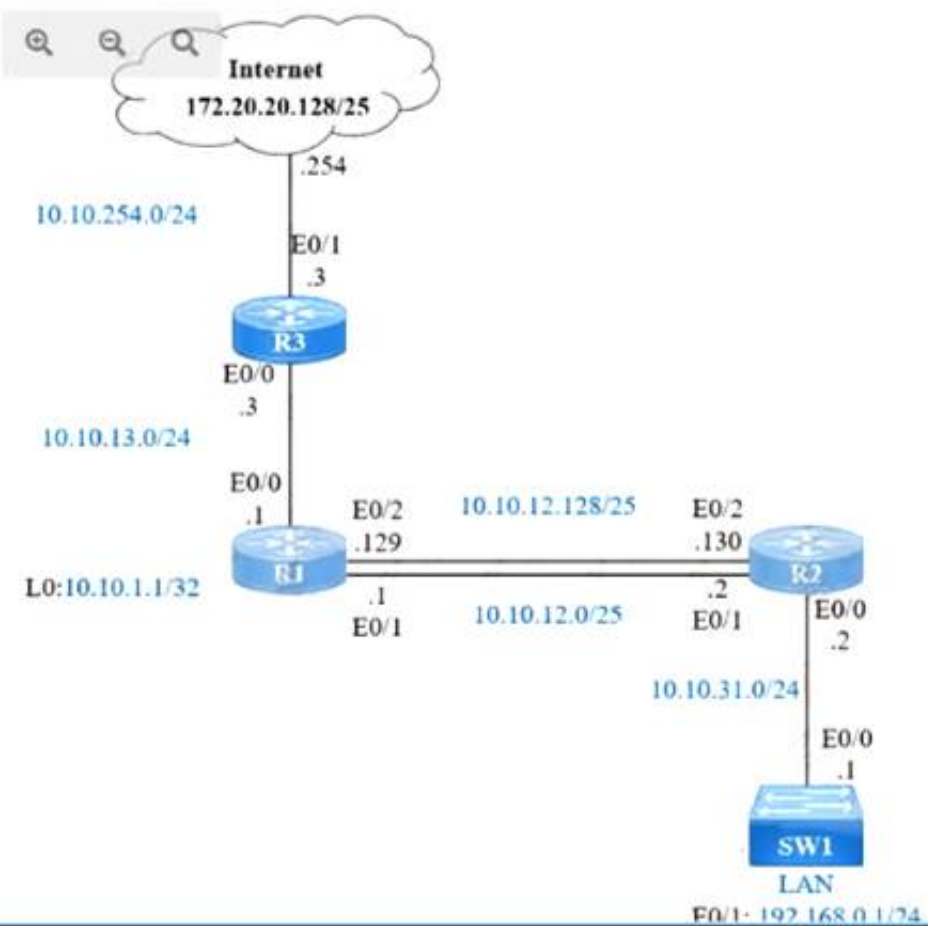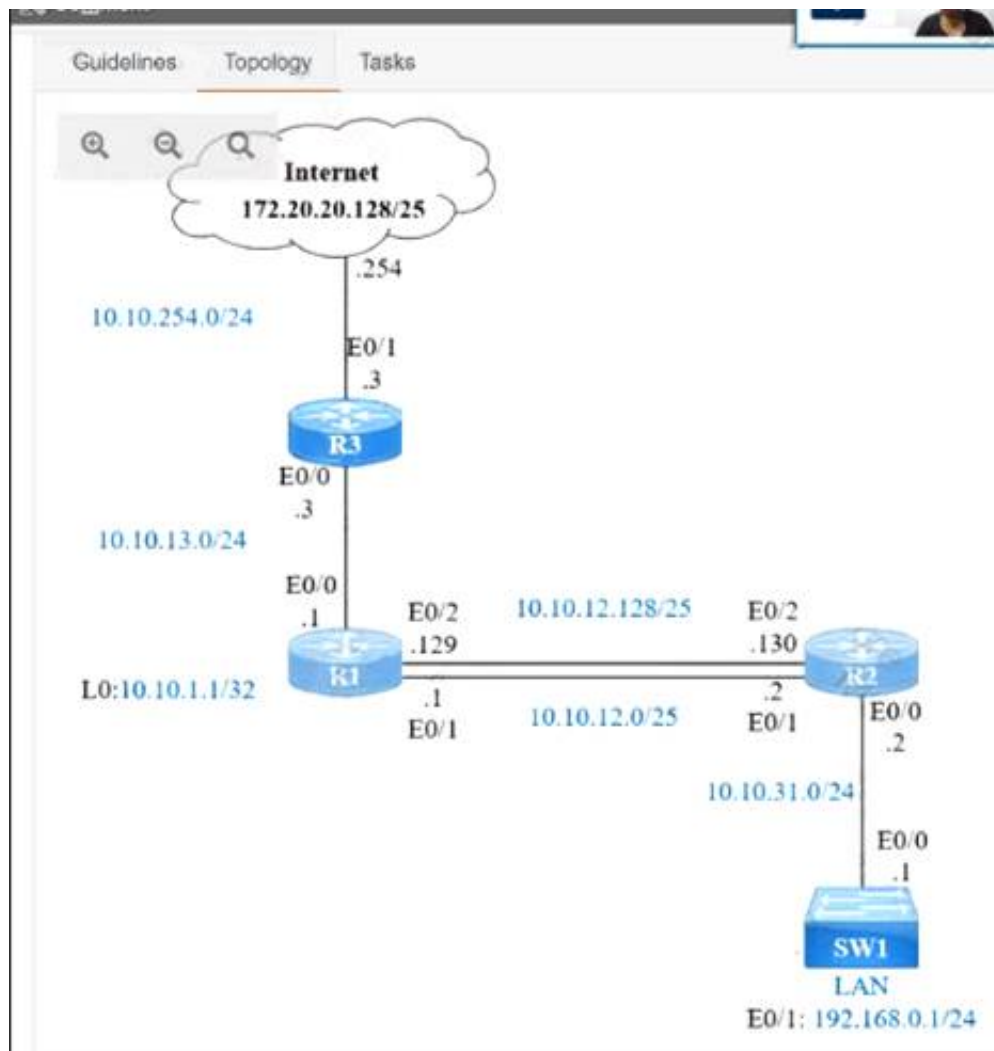* 4. Configure the native VLAN of the EtherChannel as VLAN 15.

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.

Guidelines	Topology	Tasks		SW1	SW2

SW1 E0/0 ———— L A C P ———— E0/0 SW2
SW1 E0/1 ———————————————— E0/1 SW2

Native Vlan 15

SW1#

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 104
- (Exam Topic 5)

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.

E0/0
.1
E0/2   10.10.12.128/25   E0/2
.129   .130
R1   **R2**
L0:10.10.1.1/32
.1   10.10.12.0/25   .2   E0/0
E0/1   E0/1   .2

10.10.31.0/24

E0/0
.1
SW1
LAN
F0/1: 192.168.0.1/24

Guidelines Topology Tasks

Internet
172.20.20.128/25
.254
10.10.254.0/24
E0/1
.3
R3
E0/0
.3
10.10.13.0/24
E0/0
.1   E0/2   10.10.12.128/25   E0/2
.129   .130
R1   **R2**
L0:10.10.1.1/32
.1   10.10.12.0/25   .2   E0/0
E0/1   E0/1   .2

10.10.31.0/24

E0/0
.1
SW1
LAN
F0/1: 192.168.0.1/24

IP connectivity and OSPF are preconfigured on all devices where necessary. Do not make any changes to the IP addressing or OSPF. The company policy uses connected interfaces and next hops when configuring static routes except for load balancing or redundancy without floating static. Connectivity must be established between subnet 172.20.20.128/25 on the Internet and the LAN at 192.168.0.0/24 connected to SW1:
* 1. Configure reachability to the switch SW1 LAN subnet in router R2.
* 2. Configure default reachability to the Internet subnet in router R1.
* 3. Configure a single static route in router R2 to reach to the Internet subnet considering both redundant links between routers R1 and R2. A default route is NOT allowed in router R2.
* 4. Configure a static route in router R1 toward the switch SW1 LAN subnet where the primary link must be through Ethernet0/1. and the backup link must be through Ethernet0/2 using a floating route. Use the minimal administrative distance value when required.

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Answer as below configuration:
On R2:
Enable Conf t
Ip route 192.168.1.0 255.255.255.0 10.10.31.1
On R1:
Enable Conf t
Ip route 0.0.0.0 0.0.0.0 10.10.13.3
On R2
Ip route 172.20.20.128 255.255.255.128 e0/2
Ip route 172.20.20.128 255.255.255.128 e0/1
On R1
Ip route 192.168.0.0 255.255.255.0 e0/1
Ip route 192.168.0.0 255.255.255.0 10.10.12.2 3
Save all configurations after every router from anyone of these command Do wr
Or
Copy run start

NEW QUESTION 105
- (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 109
- (Exam Topic 4)
What must a network administrator consider when deciding whether to configure a new wireless network with APs in autonomous mode or APs running in cloud-based mode?

A. Autonomous mode APs are less dependent on an underlay but more complex to maintain than APs in cloud-based mode.

B. Cloud-based mode APs relay on underlays and are more complex to maintain than APs in autonomous mode.
C. Cloud-based mode APs are easy to deploy but harder to automate than APs in autonomous mode.
D. Autonomous mode APs are easy to deploy and automate than APs in cloud-based mode.

Answer: A

NEW QUESTION 114
- (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.

It grants access to network assets, such as FTP servers.	Accounting
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 116
- (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 121
- (Exam Topic 4)
Drag and drop the characteristic from the left onto the IPv6 address type on the right.

provides one-to-many communications	Global Unicast Address
has a unicast source sent to a group	
enables aggregation of routing prefixes	Multicast
is routable and reachable via the Internet	

A. Mastered
B. Not Mastered

Answer: A

Explanation:

provides one-to-many communications
has a unicast source sent to a group

Global Unicast Address

enables aggregation of routing prefixes
is routable and reachable via the Internet

enables aggregation of routing prefixes
is routable and reachable via the Internet

Multicast

provides one-to-many communications
has a unicast source sent to a group
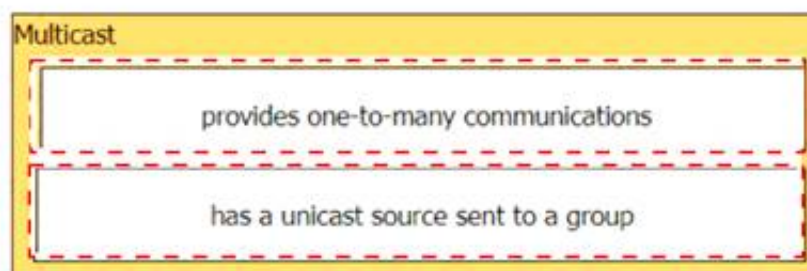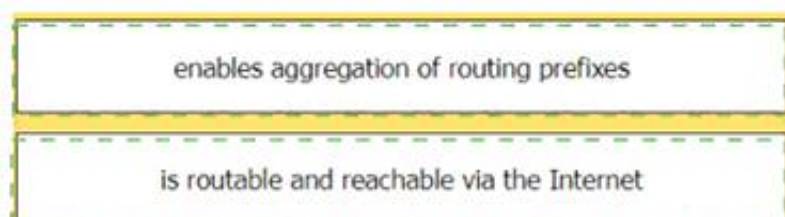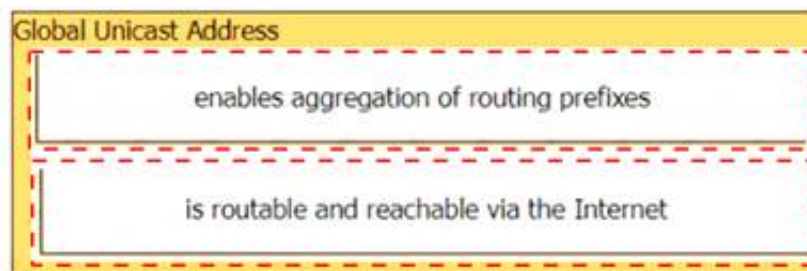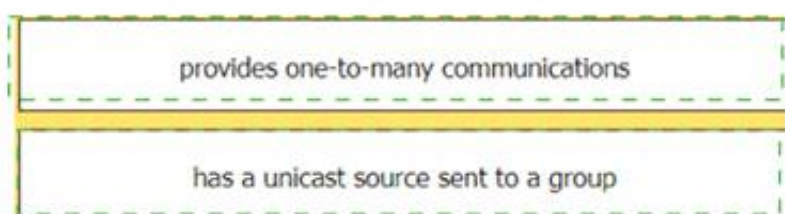
NEW QUESTION 124
- (Exam Topic 4)
After a recent security breach and a RADIUS failure, an engineer must secure the console port of each enterprise router with a local username and password. Which configuration must the engineer apply to accomplish this task?

```
aaa new-model
line con 0
password plaintextpassword
privilege level 15
```

```
username localuser secret plaintextpassword
line con 0
login authentication default
privilege level 15
```

```
username localuser secret plaintextpassword
line con 0
no login local
privilege level 15
```

```
aaa new-model
aaa authorization exec default local
aaa authentication login default radius
username localuser privilege 15 secret plaintextpassword
```

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

Answer: B

NEW QUESTION 128
- (Exam Topic 4)
What is a function of the core and distribution layers in a collapsed-core architecture?

A. The router must use IPv4 and IPv6 addresses at Layer 3.
B. The core and distribution layers are deployed on two different devices to enable failover.
C. The router can support HSRP for Layer 2 redundancy in an IPv6 network.
D. The router operates on a single device or a redundant pair.
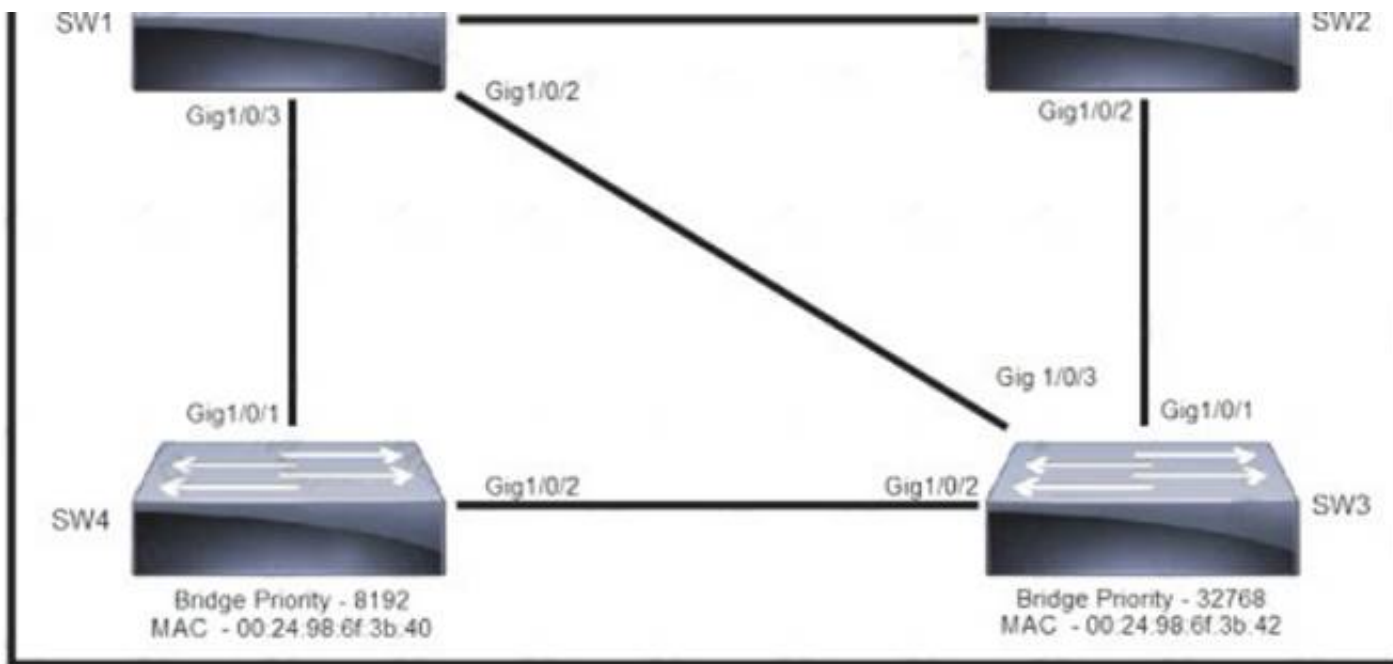
Answer: D

Explanation:
The core and distribution layers are collapsed into one layer in a collapsed-core architecture, and this layer operates on a single device or a redundant pair. This layer is responsible for the routing between the access layer and the WAN, as well as providing redundancy.

NEW QUESTION 129
- (Exam Topic 4)
Refer to the exhibit.

Rapid PVST+ mode is on the same VLAN on each switch. Which switch becomes the root bridge and why?

A. SW2, because its MAC address is the highest
B. SW3, because its priority is the highest
C. SW4, because its priority is highest and its MAC address is lower
D. SW1, because its priority is the lowest and its MAC address is higher

Answer: B

NEW QUESTION 132
- (Exam Topic 4)
Refer to the exhibit.

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

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

CPE1# show ip nat translations

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

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

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

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

Answer: A

NEW QUESTION 134
- (Exam Topic 4)
Refer to the exhibit.
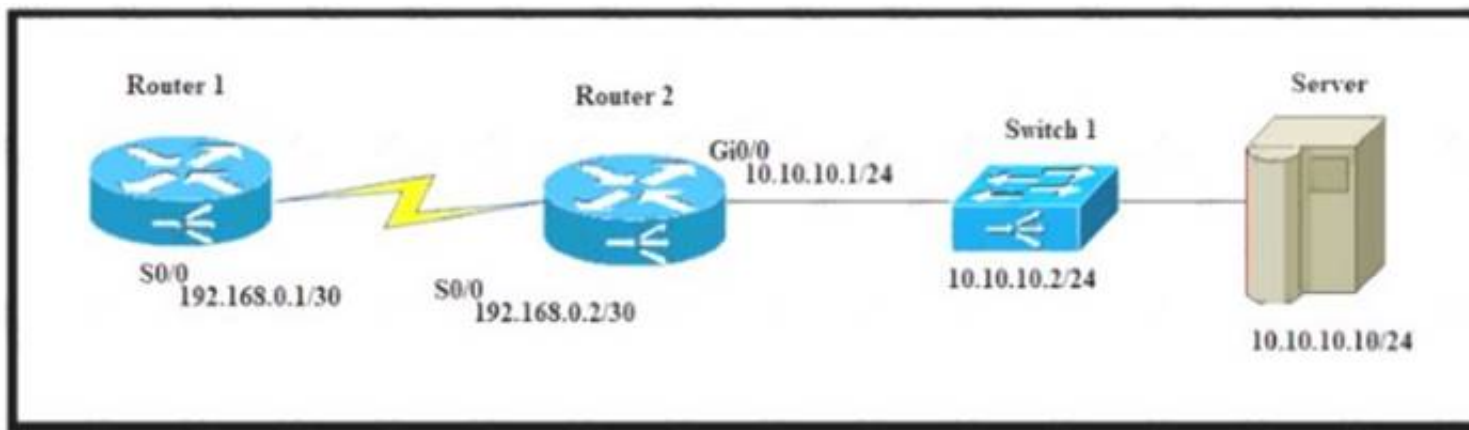
A network engineer must configure router R1 with a host route to the server. Which command must the engineer configure?

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 135
- (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 140
- (Exam Topic 4)
How does frame switching function on a switch?

A. forwards frames to a neighbor port using CDP
B. modifies frames that contain a known source VLAN
C. inspects and drops frames from unknown destinations
D. forwards known destinations to the destination port

Answer: D

NEW QUESTION 144
- (Exam Topic 4)
Which is a fact related to FTP?

A. It uses block numbers to identify and mitigate data-transfer errors
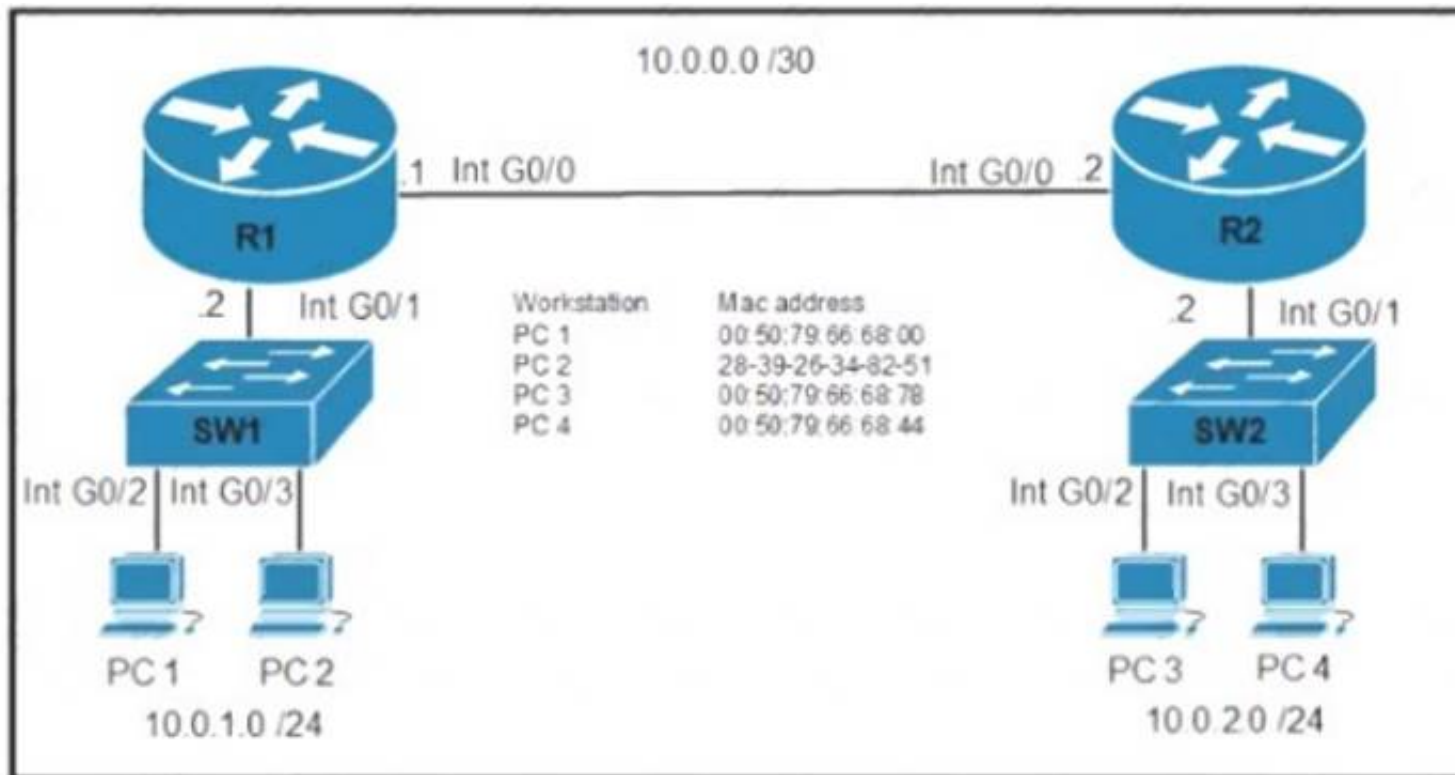B. It always operates without user authentication

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 145
- (Exam Topic 4)
Refer to the exhibit.

An engineer must configure the interface that connects to PC 1 and secure it in a way that only PC1 is allowed to use the port No VLAN tagging can be used except for a voice VLAN. Which command sequence must be entered to configure the switch?

A)
```
SW1(config-if)#switchport mode nonegotiate
SW1(config-if)#switchport port-security
SW1(config-if)#switchport port-security maximum 1
```

B)
```
SW1(config-if)#switchport mode access
SW1(config-if)#switchport port-security
SW1(config-if)#switchport port-security mac-address 0050.7966.6800
```

C)
```
SW1(config-if)#switchport mode dynamic auto
SW1(config-if)#switchport port-security
SW1(config-if)#switchport port-security violation restrict
```

D)
```
SW1(config-if)#switchport mode dynamic desirable
SW1(config-if)#switchport port-security mac-address 0050.7966.6800
SW1(config-if)#switchport port-security mac-address sticky
```

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

Answer: B

NEW QUESTION 148
- (Exam Topic 4)
An administrator must use the password complexity not manufacturer-name command to prevent users from adding "cisco" as a password. Which command must be issued before this command?

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

Answer: A

NEW QUESTION 153
- (Exam Topic 4)
Why is TCP desired over UDP for application that require extensive error checking, such as HTTPS?

A. UDP operates without acknowledgments, and TCP sends an acknowledgment for every packet received.
B. UDP reliably guarantees delivery of all packets, and TCP drops packets under heavy load.
C. UDP uses flow control mechanisms for the delivery of packets, and TCP uses congestion control for efficient packet delivery.
D. UDP uses sequencing data tor packets to arrive in order, and TCP offers trie capability to receive packets in random order.

Answer: A

NEW QUESTION 154
- (Exam Topic 4)
Refer the exhibit.

```
R19#sh int fa0/0
FastEthernet0/0 is up, line protocol is up
Hardware is DEC21140, address is ca02.7788.0000 (bia ca02.7788.0000)
Description: SALES_SUBNET
Internet address is 10.32.102.2/30
MTU 1500 bytes, BW 100000 Kbit/sec, DLY 100 usec,
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (60 sec)
Full-duplex, 100Mb/s, 100BaseTX/FX
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:01, output 00:00:00, output hang never
Last clearing of "show interface" counters never
Input queue: 0/300/0/0 (size/max/drops/flushes); Total output drops:
135298429
Queueing strategy: fifo
Output queue: 0/300 (size/max)
30 second input rate 0 bits/sec, 0 packets/sec
30 second output rate 0 bits/sec, 0 packets/sec
73310 packets input, 7101162 bytes
Received 73115 broadcasts (0 IP multicasts)
0 runts, 0 giants, 0 throttles
0 input errors, 4 CRC, 0 frame, 0 overrun, 0 ignored
0 watchdog
0 input packets with dribble condition detected
3927513096455 packets output, 14404034810952 bytes, 0 underruns
0 output errors, 11 collisions, 0 interface resets
```

What is the cause of poor performance on router R19?

A. excessive collisions
B. speed and duplex mismatch
C. port oversubscription
D. excessive CRC errors

Answer: A

NEW QUESTION 156
- (Exam Topic 4)
By default, how long will the switch continue to know a workstation MAC address after the workstation stops sending traffic?
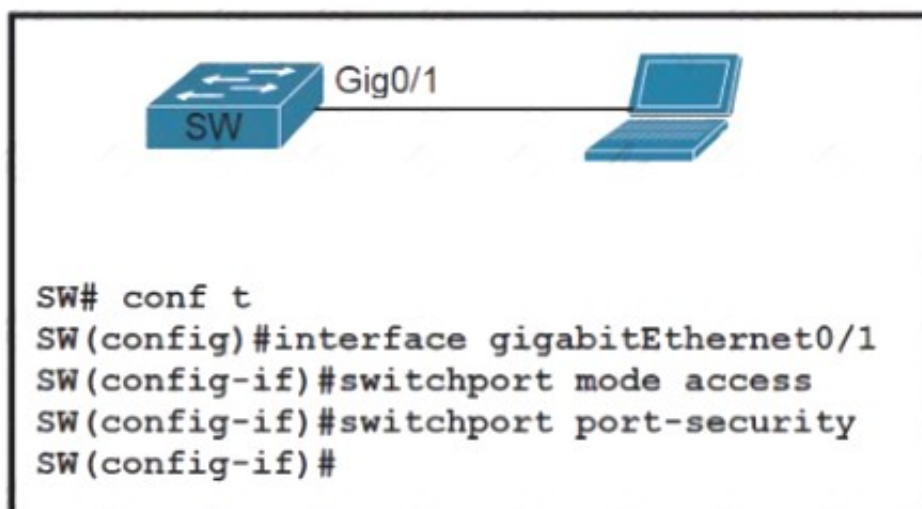
A. 200 seconds
B. 300 seconds
C. 600 seconds
D. 900 seconds

Answer: B

NEW QUESTION 158
- (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 160
- (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 165
- (Exam Topic 4)
Which command do you enter so that a switch configured with Rapid PVST + listens and learns for a specific time period?

A. switch(config)#spanning-tree vlan 1 max-age 6
B. switch(config)#spanning-tree vlan 1 hello-time 10
C. switch(config)#spanning-tree vlan 1 priority 4096
D. switch(config)#spanning-tree vlan 1 forward-time 20

Answer: D

Explanation:
Forward time : Determines how long each of the listening and learning states last before the port begins forwarding.
Switch(config)# [no] spanning-tree vlan vlan_ID forward-time forward_timeConfigures the forward time of a VLAN. The forward_time value can be from 4 to 30 seconds.
https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst4500/12-2/15-02SG/configurat ion/guide/config/spantree.html#56177

NEW QUESTION 170
- (Exam Topic 4)
Drag and drop the elements of a security program from the left onto the corresponding descriptions on the right.

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

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Diagram Description automatically generated
https://www.ciscopress.com/articles/article.asp?p=1998559&seqNum=3

NEW QUESTION 172
- (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
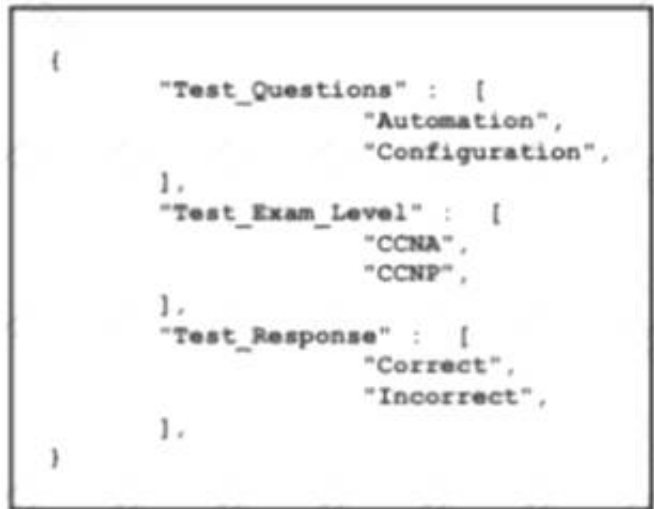
Answer: CD

NEW QUESTION 174
- (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 178
- (Exam Topic 4)
Refer to the exhibit.

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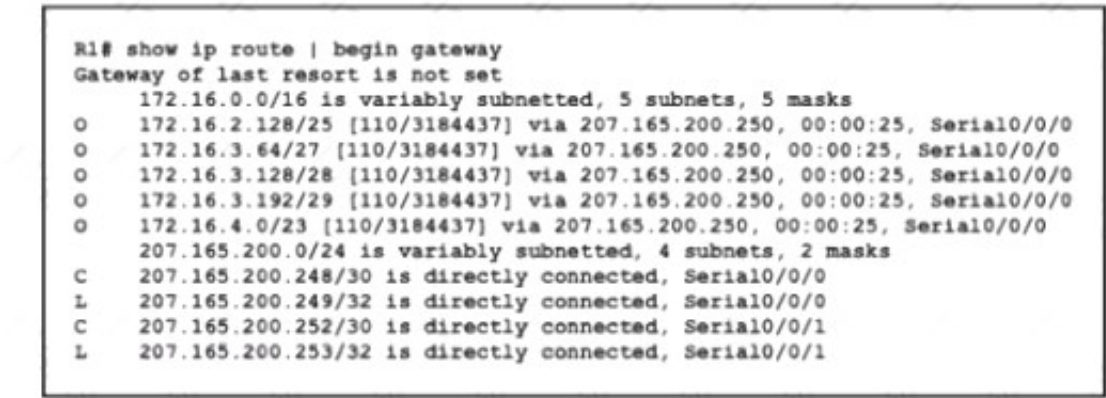
How many objects, Keys and JSON list values are present?

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 181
- (Exam Topic 4)
Refer to the exhibit.

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

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

172.16.3.128	255.255.254.0
172.16.3.64	255.255.255.128
172.16.2.128	255.255.255.224
172.16.3.192	255.255.255.240
172.16.4.0	255.255.255.248

A. Mastered

B. Not Mastered

Answer: A

Explanation:

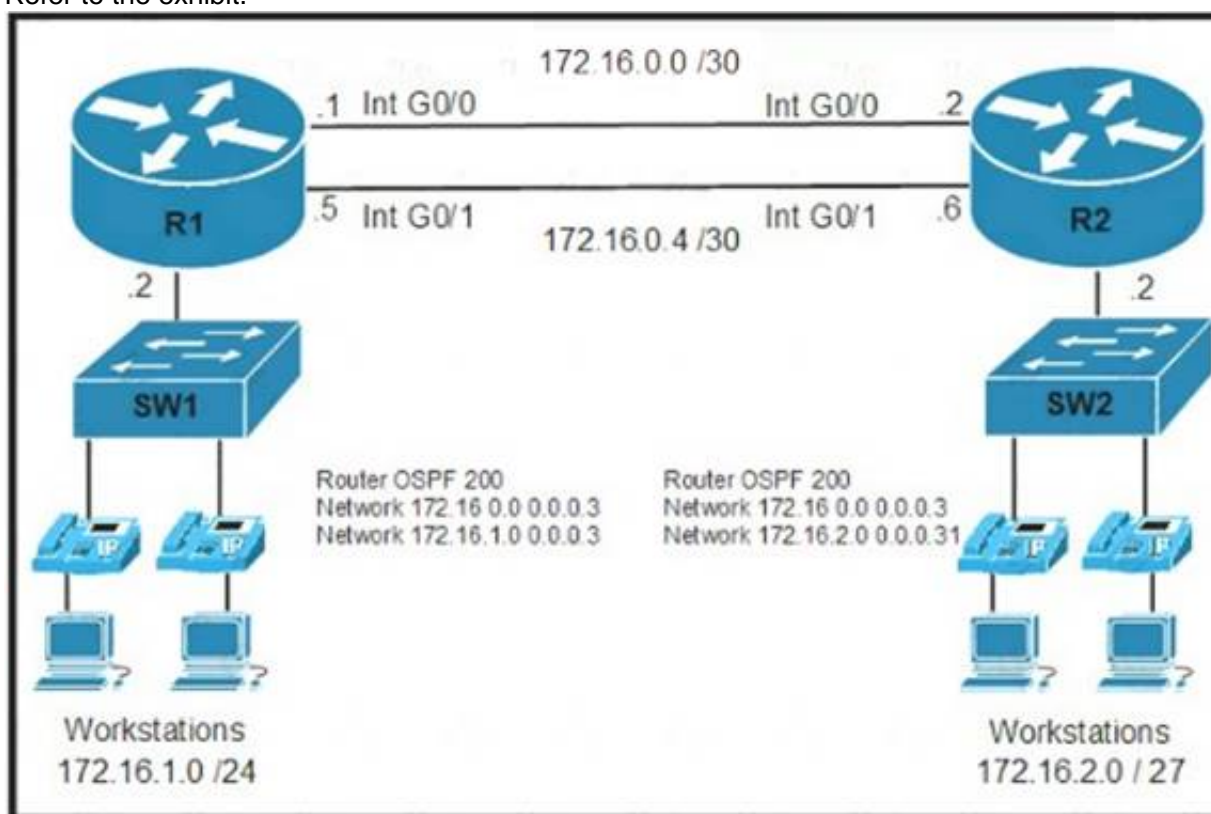|		
172.16.3.128		172.16.4.0
172.16.3.64		172.16.2.128
172.16.2.128		172.16.3.64
172.16.3.192		172.16.3.128
172.16.4.0		172.16.3.192

NEW QUESTION 186
- (Exam Topic 4)
Refer to the exhibit.

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

A)

```
R1
ip route 172.16.2.0 255.255.255.240 172.16.0.2 113

R2
ip route 172.16.1.0 255.255.255.0 172.16.0.1 114
```

B)

```
R1
ip route 172.16.2.0 255.255.255.240 172.16.0.5 89

R2
ip route 172.16.1.0 255.255.255.0 172.16.0.6 89
```

C)

```
>R1
 ip route 172.16.2.0 255.255.255.248 172.16.0.5 110

R2
 ip route 172.16.1.0 255.255.255.0 172.16.0.6 110
```

D)

```
R1
ip route 172.16.2.0 255.255.255.224 172.16.0.6 111

R2
ip route 172.16.1.0 255.255.255.0 172.16.0.5 112
```

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

Answer: D

NEW QUESTION 190
- (Exam Topic 4)
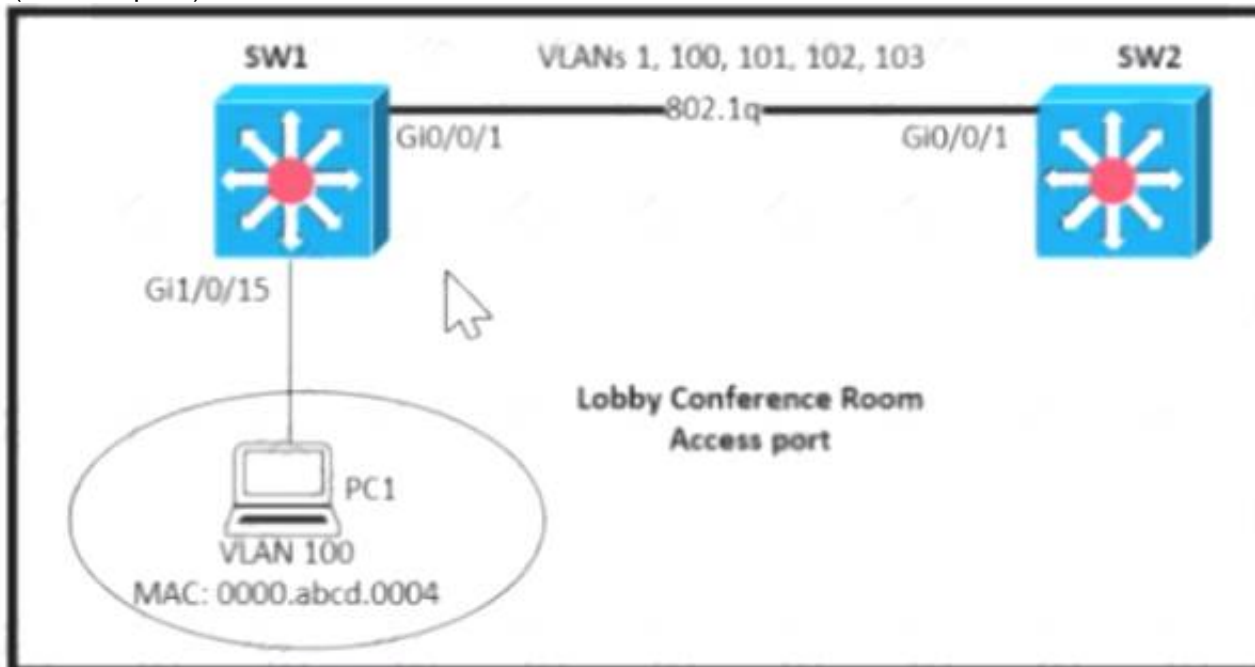
SW1 supports connectivity for a lobby conference room and must be secured. The engineer must limit the connectivity from PCI lo ma SW1 and SW2 network. The MAC addresses allowed must be Limited to two. Which configuration secures the conference room connectivity?

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 193
- (Exam Topic 4)
What describes a northbound REST API for SON?

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

Answer: D

NEW QUESTION 195
- (Exam Topic 4)
Which WAN topology has the highest degree of reliability?

A. full mesh
B. Point-to-point
C. hub-and-spoke
D. router-on-a-stick

Answer: A

NEW QUESTION 197
- (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 201
- (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 206
- (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 211
- (Exam Topic 4)
Which protocol is used in Software Defined Access (SDA) to provide a tunnel between two edge nodes in different fabrics?

A. Generic Router Encapsulation (GRE)
B. Virtual Local Area Network (VLAN)
C. Virtual Extensible LAN (VXLAN)
D. Point-to-Point Protocol

Answer: C

NEW QUESTION 215
- (Exam Topic 4)
Drag and drop the characteristic from the left onto the IPv6 address type on the right.
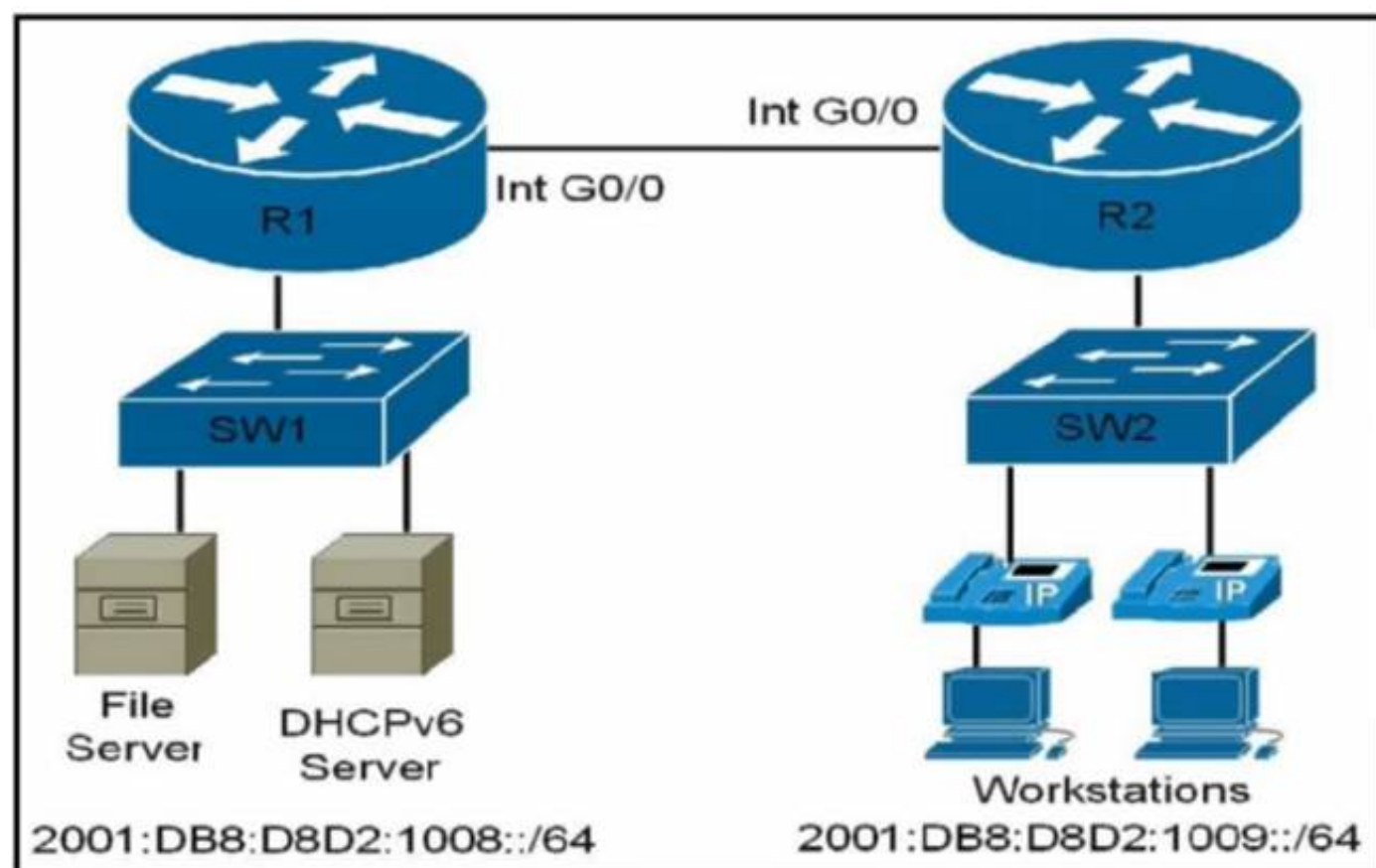

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Graphical user interface, application Description automatically generated

NEW QUESTION 218
- (Exam Topic 4)
Refer to the exhibit An IPv6 address must be obtained automatically on the LAN interface on R1 Which command must be implemented to accomplish the task?

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

Answer: B

NEW QUESTION 220
- (Exam Topic 4)
Which two server types support dornas name to IP address resolution? (Choose two >

A. ESX host
B. resolver
C. web
D. file transfer
E. authentication

Answer: AC

NEW QUESTION 225
- (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.

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 229
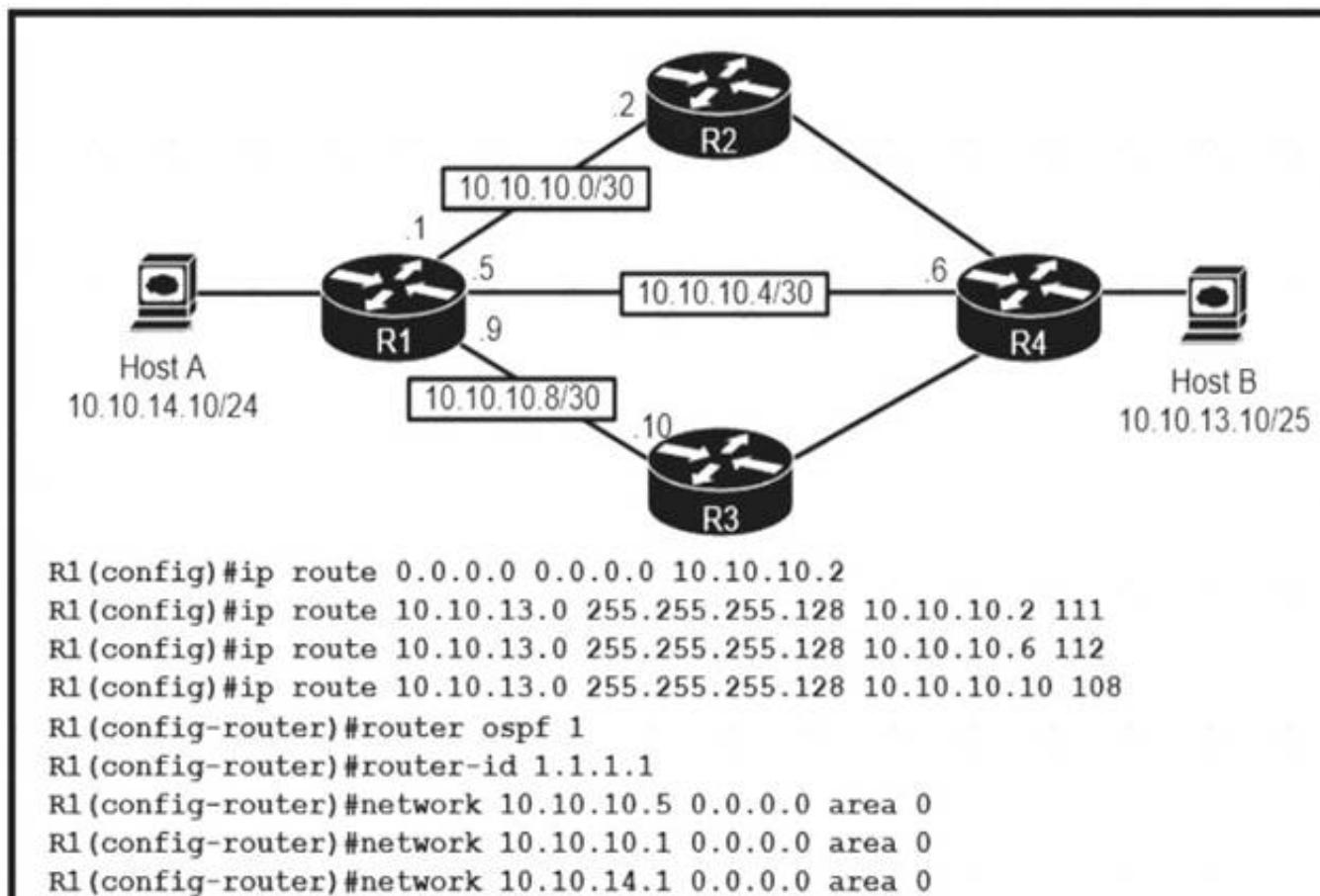- (Exam Topic 4)
What is a similarity OM3 and OM4 fiber optical cable?

A. Both have a 62.5 micron core diameter.
B. Both have a 50 micron core diameter.
C. Both have a 100 micron core diameter.
D. Both have a 9 micron core diameter.

Answer: B

NEW QUESTION 230
- (Exam Topic 4)
Refer to the exhibit.


```
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
```

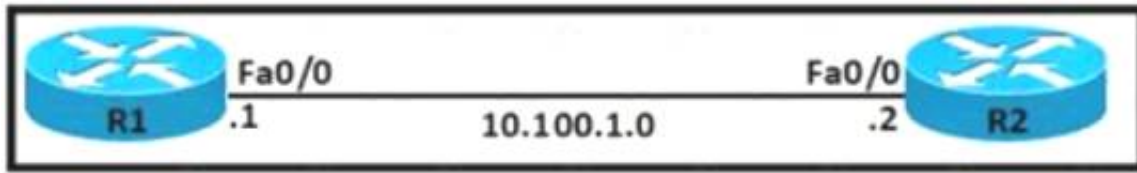R1 has just received a packet from host A that is destined to host B. Which route in the routing table is used by R1 to reac B?

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 235
- (Exam Topic 4)
Refer to the exhibit.

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 239
- (Exam Topic 4)
Drag and drop the Cisco IOS attack mitigation features from the left onto the types of network attack they mitigate on the right.

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

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Application Description automatically generated with medium confidence

NEW QUESTION 243
- (Exam Topic 4)
What are two disadvantages of a full-mesh topology? (Choose two.)

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

Answer: BD

NEW QUESTION 248
- (Exam Topic 4)
Drag and drop each characteristic of device-management technologies from the left onto the deployment type on the right.

| relies on per-device management |
| uses individual software management |
| orchestrates background device configuration |

Cisco DNA Center

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

Traditional

A. Mastered
B. Not Mastered

Answer: A

Explanation:
A picture containing diagram Description automatically generated

NEW QUESTION 252
- (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 257
- (Exam Topic 4)
An engineer is configuring router R1 with an IPv6 static route for prefix 2019:C15C:0CAF:E001::/64. The next hop must be 2019:C15C:0CAF:E002::1 The route must be reachable via the R1 Gigabit 0/0 interface. Which command configures the designated route?

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

Answer: C

NEW QUESTION 262
- (Exam Topic 4)
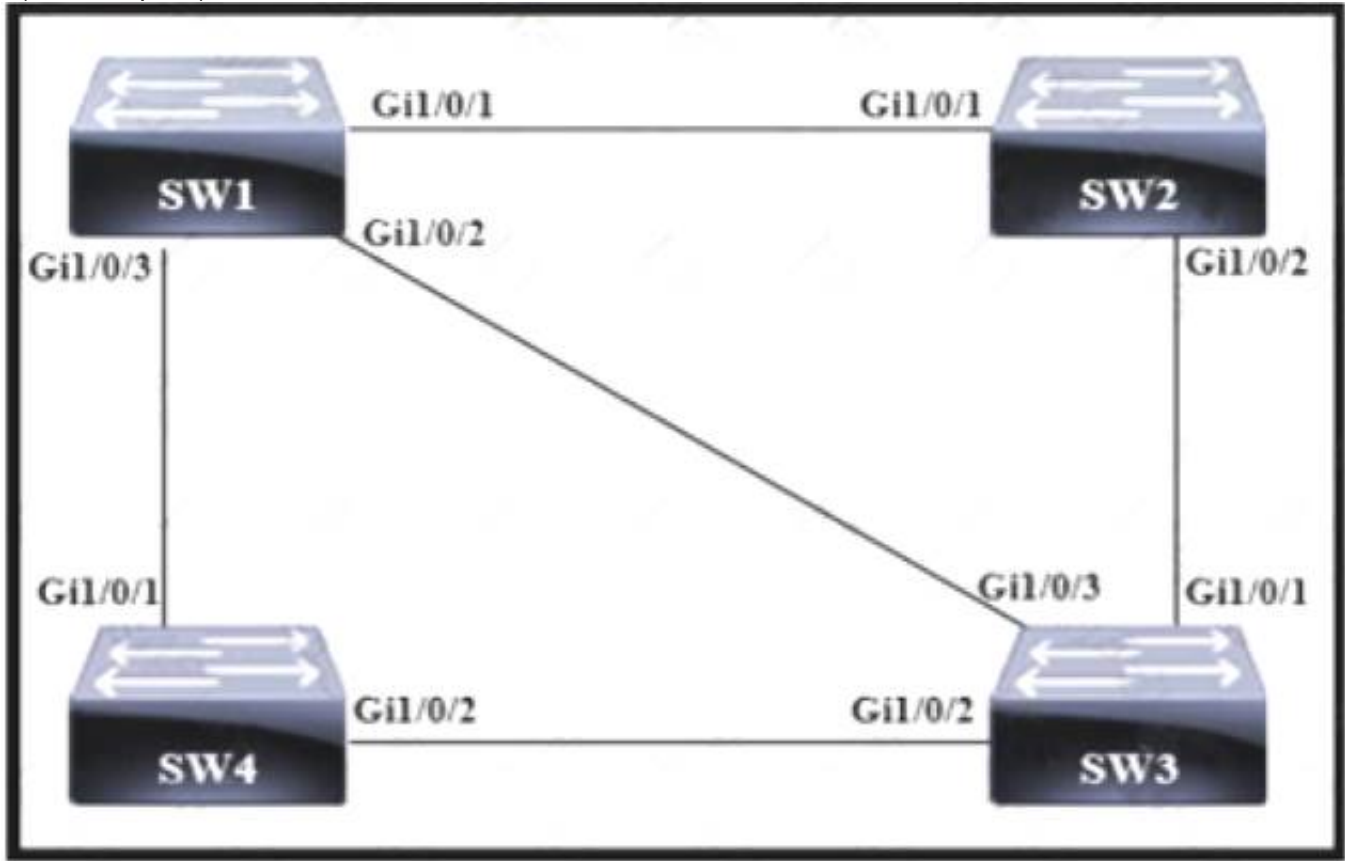
A)

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

B)

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

C)

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

D)

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

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

Answer: D

NEW QUESTION 266
- (Exam Topic 4)
Drag and drop the HTTP methods used with REST-Based APIs from the left onto the descriptions on the right.

DELETE	creates a resource and returns its URI in the response header
GET	creates or replaces a previously modified resource using information in the request body
POST	removes a resource
PATCH	retrieves a list of a resource's URIs
PUT	updates a resource using instructions included in the request body

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Table Description automatically generated

NEW QUESTION 269
- (Exam Topic 4)
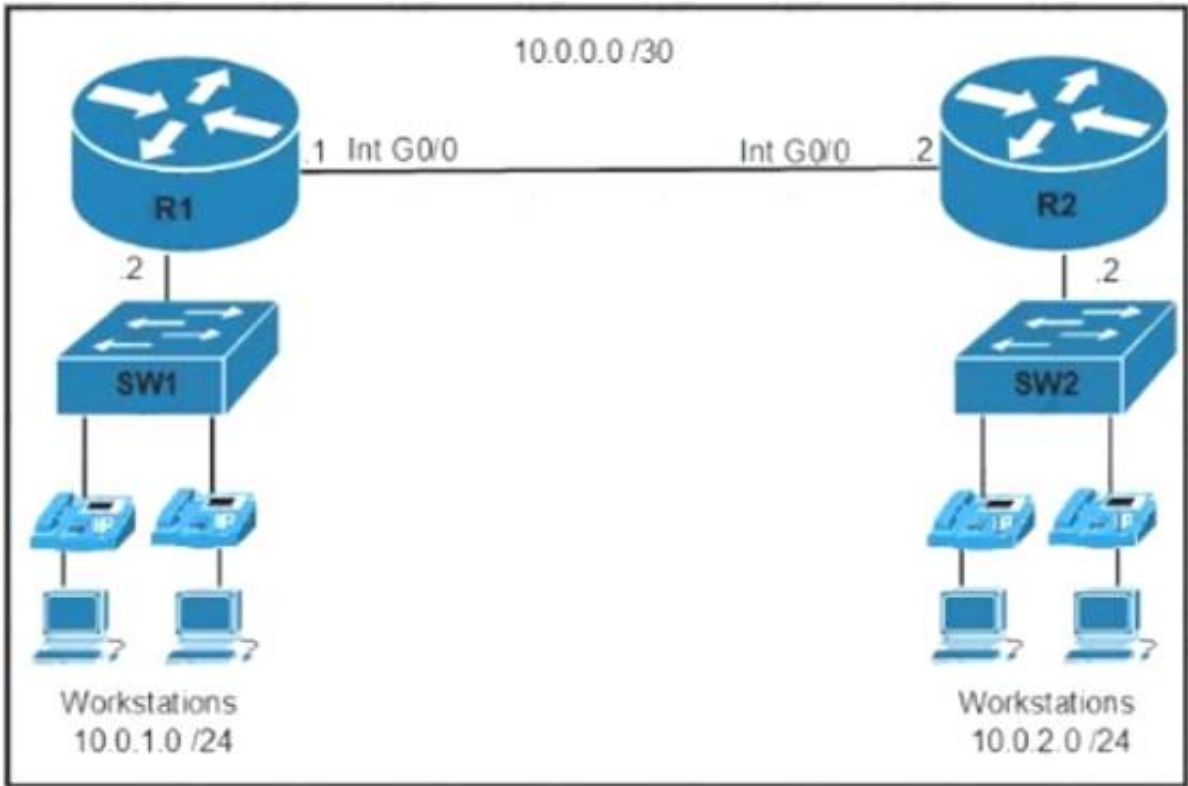
Refer to the exhibit. An engineer is asked to confère router R1 so that it forms an OSPF single-area neighbor relationship with R2. Which command sequence must be implemented to configure the router?

```
○ router ospf 10
    network 10.0.0.0 0.0.0.3 area 0
    network 10.0.2.0 0.0.0.255 area 0

○ router ospf 10
    network 10.0.0.0 0.0.0.3 area 0
    network 10.0.1.0 0.0.0.255 area 0

○ router ospf 100
    network 10.0.0.0 0.0.0.3 area 0
    network 10.0.2.0 255.255.255.0 area 0

○ router ospf 100
    network 10.0.0.0 0.0.0.252 area 0
    network 10.0.1.0 0.0.0.255 area 0
```

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

Answer: B

NEW QUESTION 271
- (Exam Topic 4)
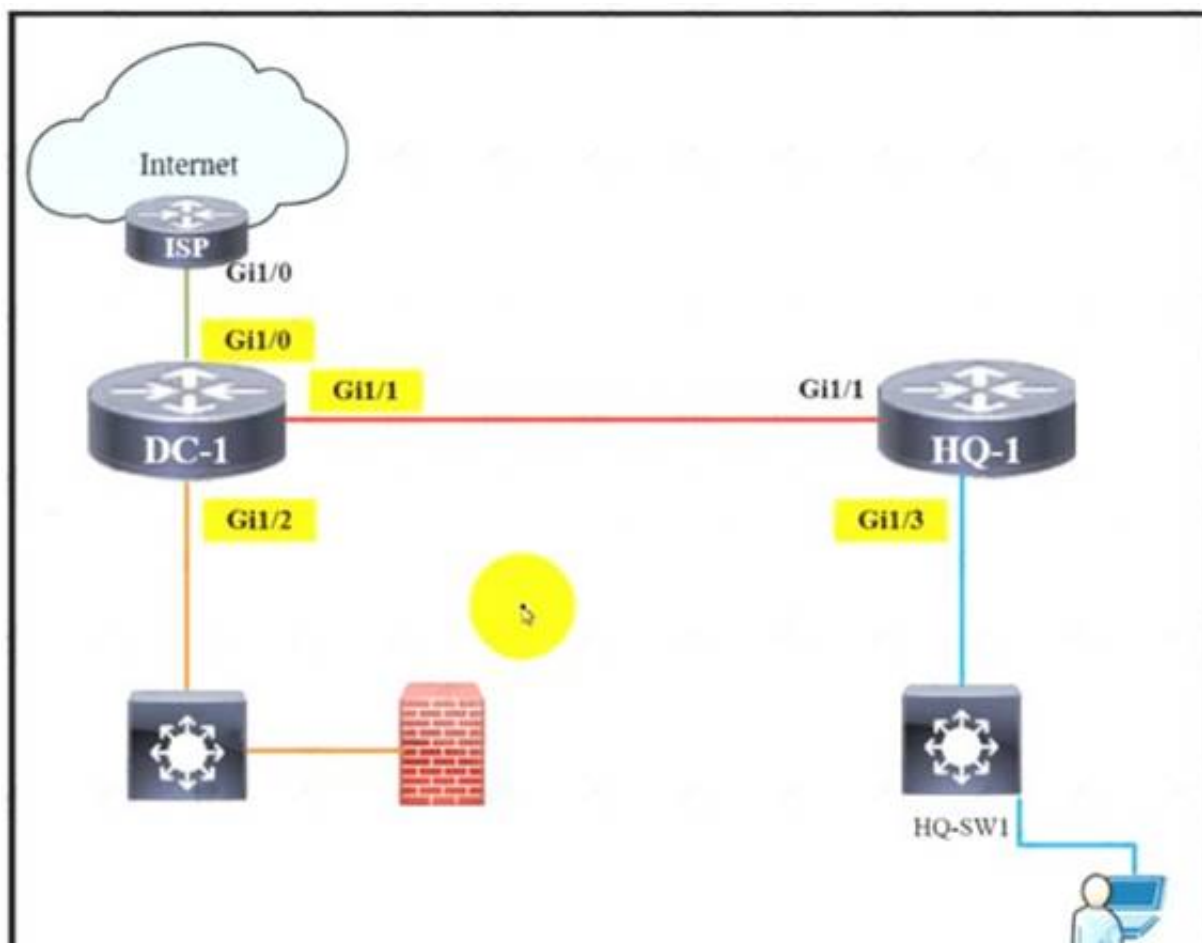In a cloud-computing environment what is rapid elasticity?

A. control and monitoring of resource consumption by the tenant
B. automatic adjustment of capacity based on need
C. pooling resources in a multitenant model based on need
D. self-service of computing resources by the tenant

Answer: B

NEW QUESTION 275
- (Exam Topic 4)
Refer to Exhibit.

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

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Graphical user interface, application Description automatically generated

NEW QUESTION 280
- (Exam Topic 4)
Which type of address is shared by routers in a HSRP implementation and used by hosts on the subnet as their default gateway address?
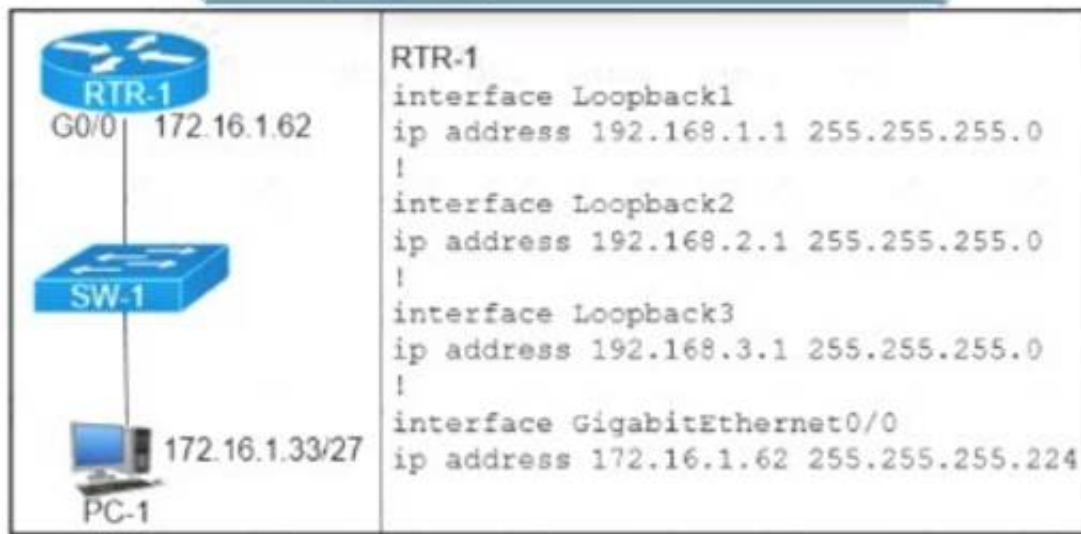
A. multicast address
B. loopback IP address
C. virtual IP address
D. broadcast address

Answer: C

NEW QUESTION 284
- (Exam Topic 4)
Refer to the exhibit.

RTR-1
interface Loopback1
ip address 192.168.1.1 255.255.255.0
!
interface Loopback2
ip address 192.168.2.1 255.255.255.0
!
interface Loopback3
ip address 192.168.3.1 255.255.255.0
!
interface GigabitEthernet0/0
ip address 172.16.1.62 255.255.255.224

RTR-1
G0/0   172.16.1.62

SW-1

PC-1   172.16.1.33/27

Which configuration for RTR-1 deniess SSH access from PC-1 to any RTR-1 interface and allows all other traffic?
A)
access-list 100 deny tcp host 172.16.1.33 any eq 22
access-list 100 permit ip any any

interface GigabitEthernet0/0
 ip access-group 100 in

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

line vty 0 15
 access-class 100 in

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

interface GigabitEthernet0/0
ip access-group 100 in

D)
 access-list 100 deny tcp host 172.16.1.33 any eq 23
 access-list 100 permit ip any any
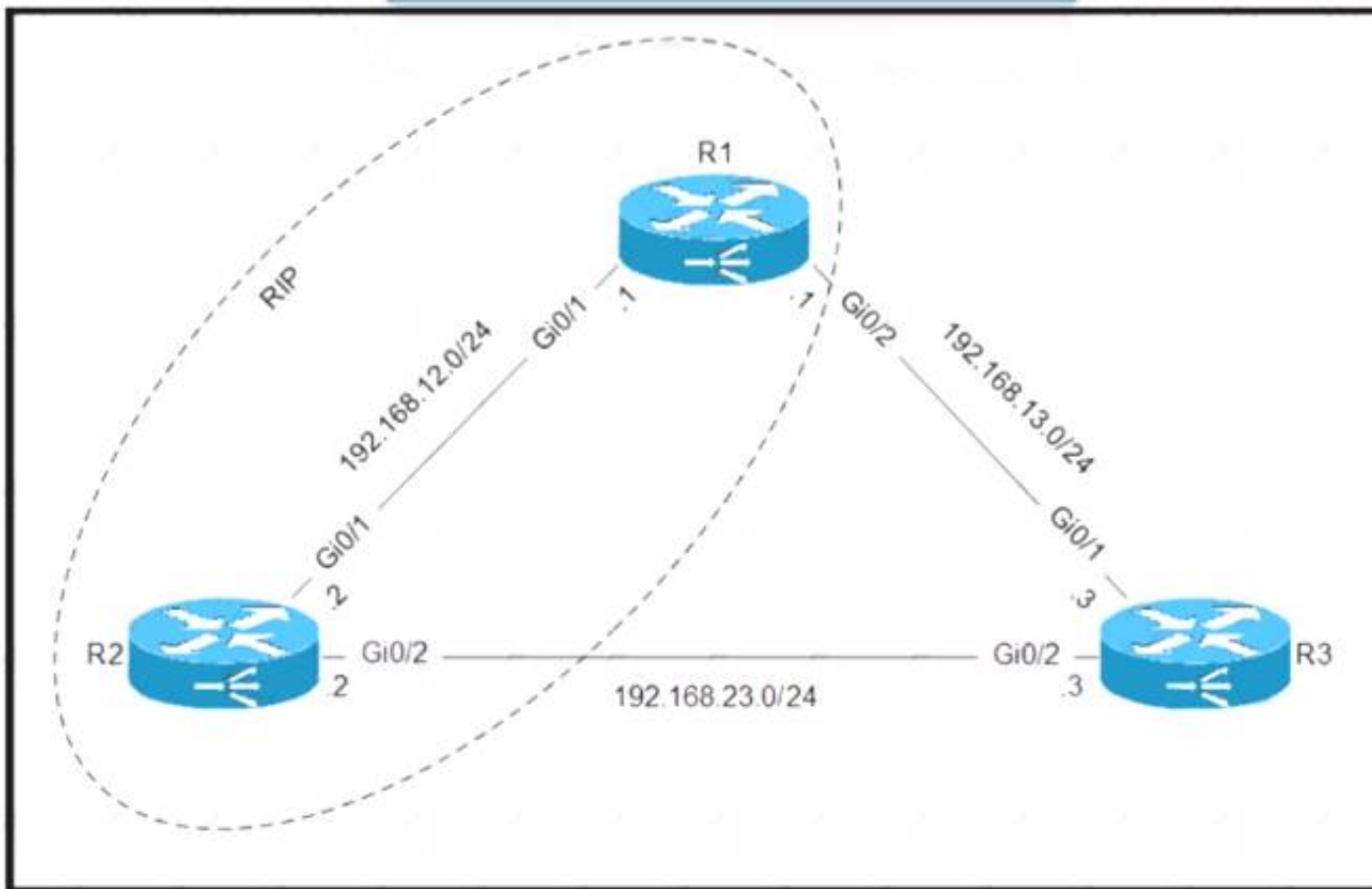
line vty 0 15
 access-class 100 in

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

Answer: B

NEW QUESTION 286
- (Exam Topic 4)
Refer to the exhibit.

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

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

Answer: B

NEW QUESTION 290
- (Exam Topic 4)
What is a function of MAC address learning?
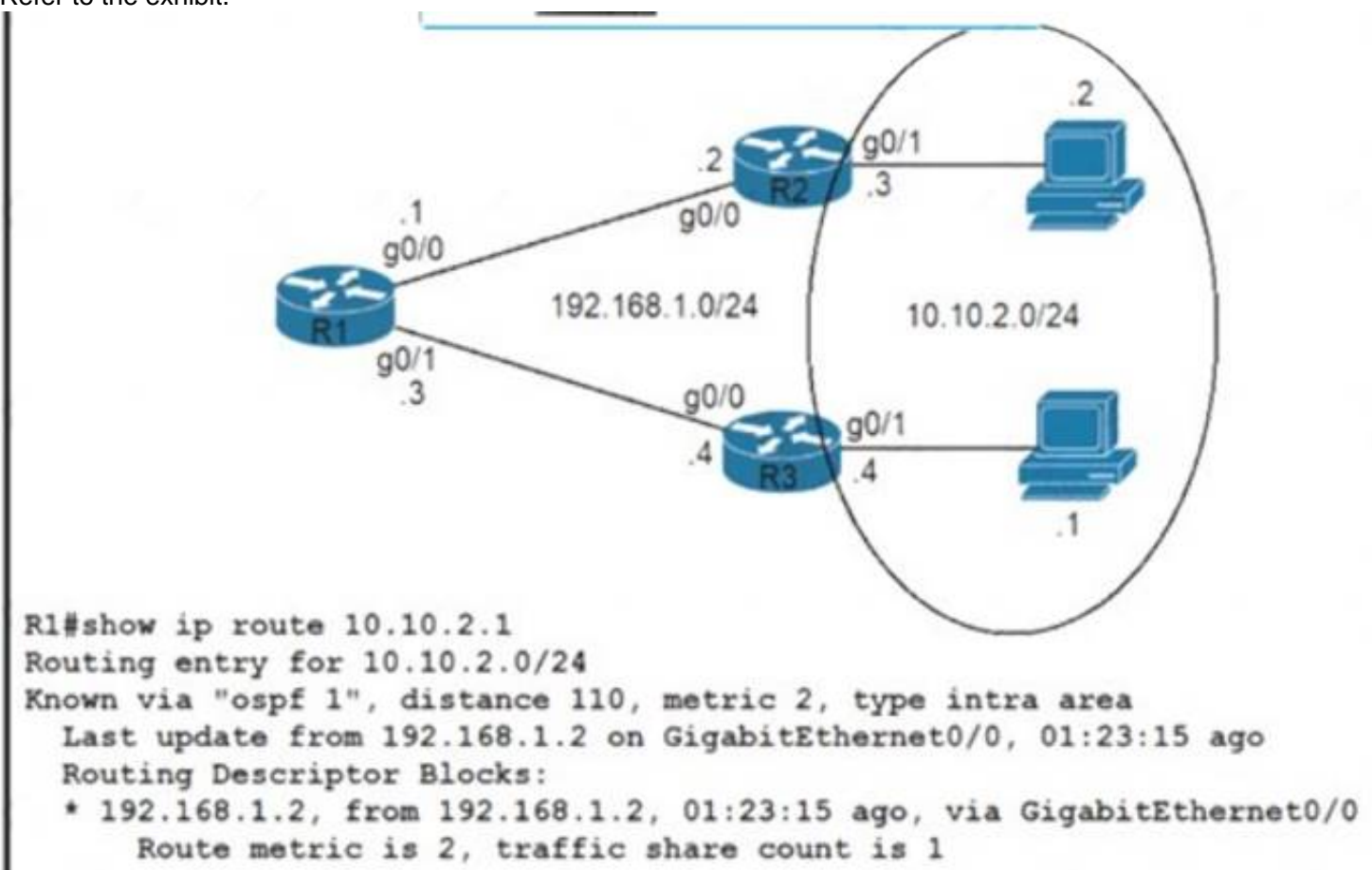
A. It is enabled by default on all VLANs and interfaces
B. It increases the potential for MAC address flooding.
C. It is disabled by default on all interfaces connected to trunks
D. It increases security on the management VLAN

Answer: A

NEW QUESTION 295
- (Exam Topic 4)
Refer to the exhibit.

Traffic from R1 to the 10.10.2.0/24 subnet uses 192.168.1.2 as its next hop. An network engineer wants to update the R1 configuration so that traffic with destination 10.10.2.1 passes through router R3, and all other traffic to the 10.10.20/24 subnet passes through r2. Which command must be used?

A. Ip route 10.10.2.1 255.255.255.255 192.168.1.4 115

B. Ip route 10.10.2.0 255.255.255.0 192.168.1.4 100
C. Ip route 10.10.2.0 255.255.255.0 192.168.1.4 115
D. Ip route 10.10.2.1 255.255.255.255 192.168.1.4 100

Answer: D

NEW QUESTION 296
- (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?
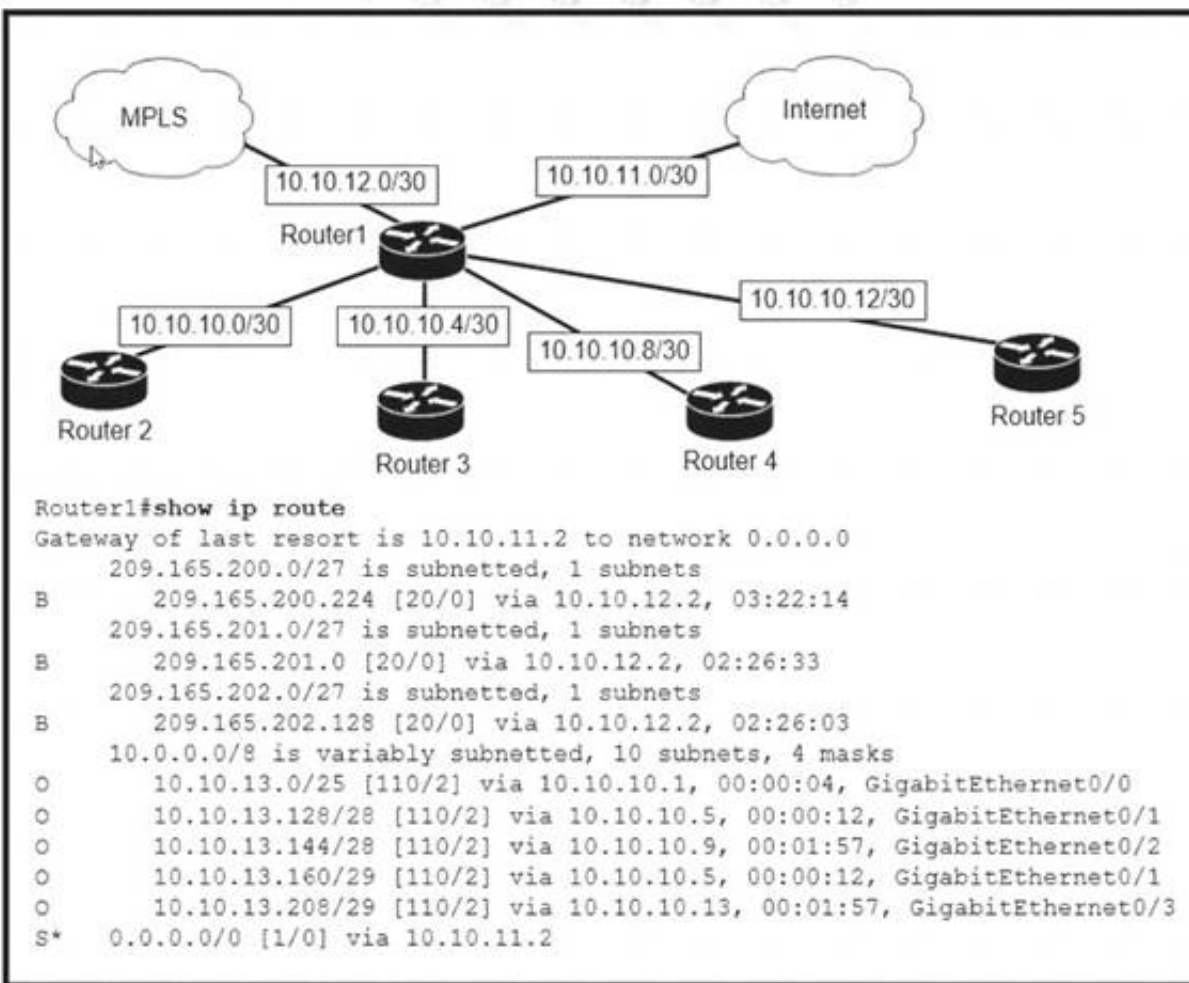
A. Lightweight with local switching disabled
B. Local with AP fallback enabled
C. OfficeExtend with high availability disabled
D. FlexConnect with local switching enabled

Answer: C

NEW QUESTION 297
- (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 300
- (Exam Topic 4)
Refer to the exhibit.

```
R2#show ip ospf interface
GigabitEthernet0/0/0 is up, line protocol is up
  Internet address is 192.168.1.1/24, Area 0
  Process ID 1, Router ID 192.168.1.1, Network Type BROADCAST, Cost: 1
  Transmit Delay is 1 sec, State DROTHER, Priority 1
  Designated Router (ID) 192.168.1.1, Interface address 192.168.1.2
  Backup Designated Router (ID) 192.168.1.1, Interface address 192.168.1.2
  Timer intervals configured, Hello 10, Dead 40, Wait 40, Retransmit 5
    Hello due in 00:00:02
  Index 2/2, flood queue length 0
   Neighbor Count is 1, Adjacent neighbor count is 2
```

Router OldR is replacing another router on the network with the intention of having OldR and R2 exchange routes_ After the engineer applied the initial OSPF configuration: the routes were still missing on both devices. Which command sequence must be issued before the clear IP ospf process command is entered to enable the neighbor relationship?

○ OldR(config)#**interface g0/0/0**
   OldR(config-if)#**ip ospf dead-interval 15**

○ OldR(config)#**router ospf 1**
   OldR(config-router)#**no router-id 192.168.1.1**

◉ OldR(config)#**router ospf 1**
   OldR(config-router)#**network 192.168.1.0 255.255.255.0 area 2**

○ OldR(config)#**interface g0/0/0**
   OldR(config-if)#**ip ospf hello-interval 15**

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

Answer: C

NEW QUESTION 304
- (Exam Topic 4)
Drag and drop the characteristics of transport layer protocols from the left onto the corresponding protocols on the right.

TCP

guarantees packet delivery
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

uses a 32-bit sequence number

ideal for voice traffic

provides support for retransmission of lost packets

offers minimal overhead within a packet

requires less computer resources

TCP

provides support for retransmission of lost packets

guarantees packet delivery

uses a 32-bit sequence number

UDP

ideal for voice traffic

requires less computer resources

offers minimal overhead within a packet

NEW QUESTION 307
- (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 309
- (Exam Topic 4)
Which security method is used to prevent man-in-the-middle attack?

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

Answer: B

NEW QUESTION 314
- (Exam Topic 4)
What is used as a solution for protecting an individual network endpoint from attack?

A. Router
B. Wireless controller
C. Anti software
D. Cisco DNA Center

Answer: C

NEW QUESTION 319
- (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

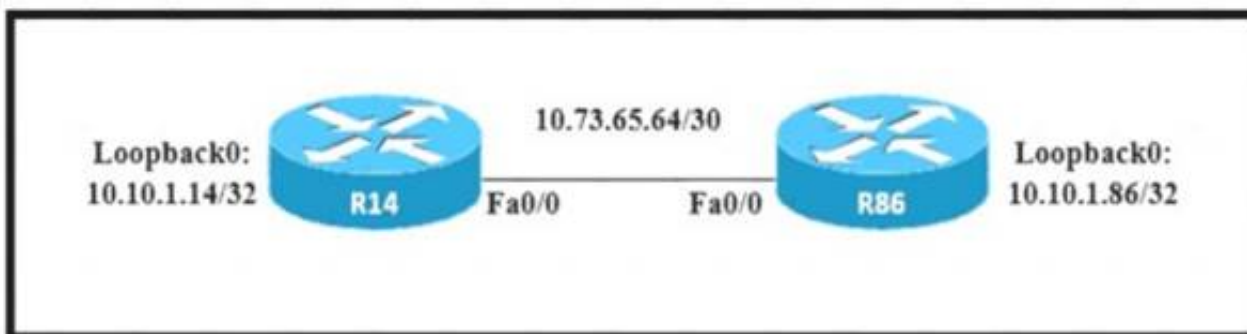|	
It enables the device to allow user- or group-based access.	**Accounting**
It leverages a RADIUS server to grant user access to a reverse Telnet session.	It records the amount of time for which a user accesses the network on a remote server.
It records the amount of time for which a user accesses 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 320
- (Exam Topic 4)
Refer to the exhibit.


```
Loopback0:            10.73.65.64/30            Loopback0:
10.10.1.14/32   R14                        R86   10.10.1.86/32
                 Fa0/0          Fa0/0
```

All interfaces are configured with duplex auto and ip ospf network broadcast. Which configuration allows routers R14 and R86 to form an OSPFv2 adjacency and act as a central point for exchanging OSPF information between routers?

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

router ospf 10
router-id 10.10.1.14
network 10.10.1.14 0.0.0.0 area 0
network 10.73.65.64 0.0.0.3 area 0
R86#
interface FastEthernet0/0
ip address 10.73.65.66 255.255.255.252
ip mtu 1500

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

R14#
interface Loopback0
ip ospf 10 area 0

interface FastEthernet0/0
ip address 10.73.65.65 255.255.255.252
ip ospf priority 255
ip ospf 10 area 0
ip mtu 1500

router ospf 10
router-id 10.10.1.14

R86#
interface Loopback0
ip ospf 10 area 0

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

router ospf 10
router-id 10.10.1.86

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

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

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

R14#
interface Loopback0
ip ospf 10 area 0

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

router ospf 10
ip ospf priority 255
router-id 10.10.1.14
R86#
interface Loopback0
ip ospf 10 area 0

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

router ospf 10
router-id 10.10.1.86

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

D. option D

Answer: B

NEW QUESTION 322
- (Exam Topic 4)
Which syslog severity level is considered the most severe and results in the system being considered unusable?

A. Alert
B. Error
C. Emergency
D. Critical

Answer: C

NEW QUESTION 324
- (Exam Topic 4)
Refer to the exhibit.

```
Switch2# show lldp
Global LLDP Information
    Status: ACTIVE
    LLDP advertisements are sent every 30 seconds
    LLDP hold time advertised is 120 seconds
    LLDP interface reinitialization delay is 2 seconds
```

A network engineer must update the configuring on switch2 so that it sends LLDP packets.
A)
```
Switch2(config)#lldp timer 1
Switch2(config)#lldp tlv-select 3
```
B)
```
Switch2(config)#lldp timer 1
Switch2(config)#lldp holdtime 3
```
C)
```
Switch2(config)#lldp timer 60
Switch2(config)#lldp holdtime 180
```
D)
```
) Switch2(config)#lldp timer 60
  Switch2(config)#lldp tlv-select 180
```

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

Answer: C

NEW QUESTION 326
- (Exam Topic 4)
Refer to the exhibit.

```
Current Neighbor Relationship

Neighbor ID    Pri  State        Dead Time  Address      Interface
192.168.1.1     1   FULL/DR      00:00:33   192.168.1.1  GigabitEthernet0/0

Desired Neighbor Relationship

Neighbor ID    Pri  State        Dead Time  Address      Interface
192.168.1.1     0   FULL/ -      00:00:31   192.168.1.1  GigabitEthernet0/0
```

How must OSPF be configured on the GigabitEthernet0/0 interface of the neighbor device to achieve.
A)
```
Router(config)#interface GigabitEthernet 0/0
Router(config-if)#ip ospf priority 1
```

B)

```
Router(config)#interface GigabitEthernet 0/0
Router(config-if)#ip ospf 1 area 2
```

C)

```
Router(config)#interface GigabitEthernet 0/0
Router(config-if)#ip ospf cost 5
```

D)

```
Router(config)#interface GigabitEthernet 0/0
Router(config-if)#ip ospf network point-to-point
```

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

Answer: A

NEW QUESTION 329
- (Exam Topic 4)
How does authentication differ from authorization?

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

Answer: A

NEW QUESTION 334
- (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 336
- (Exam Topic 4)
An engineer is configuring SSH version 2 exclusively on the R1 router. What is the minimum configuration required to permit remote management using the cryptographic protocol?

```
  hostname R1

    ip domain name cisco

    crypto key generate rsa general-keys modulus 1024

    username cisco privilege 15 password 0 cisco123

    ip ssh version 2

    line vty 0 15
     transport input ssh
     login local

  hostname R1

    crypto key generate rsa general-keys modulus 1024

    username cisco privilege 15 password 0 cisco123

    ip ssh version 2

    line vty 0 15
     transport input all
     login local

  hostname R1

    service password-encryption

    crypto key generate rsa general-keys modulus 1024

    username cisco privilege 15 password 0 cisco123

    ip ssh version 2

    line vty 0 15
     transport input ssh
     login local

  hostname R1

    ip domain name cisco

    crypto key generate rsa general-keys modulus 1024

    username cisco privilege 15 password 0 cisco123

    ip ssh version 2

    line vty 0 15
     transport input all
     login local
```

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

Answer: C

NEW QUESTION 340
- (Exam Topic 4)
What is an enhancement implemented in WPA3?

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

Answer: D

NEW QUESTION 344
- (Exam Topic 4)
What differentiates device management enabled by cisco DNA center from traditional campus device management?

A. CLI-oriented device
B. device-by-device hands-on
C. centralized
D. per-device

Answer: C

NEW QUESTION 346
- (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 347
- (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 348
- (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 351
- (Exam Topic 4)
Refer to the exhibit.

```
Gateway of last resort is 172.16.2.2 to network 0.0.0.0

        10.0.0.0/8 is variably subnetted, 3 subnets, 3 masks
            10.10.100.0/26 is directly connected, GigabitEthernet0/0/6
C           10.10.10.0/24 is directly connected, GigabitEthernet0/0/0
L           10.10.10.3/32 is directly connected, GigabitEthernet0/0/0
        172.16.0.0/16 is variably subnetted, 3 subnets, 2 masks
S           172.16.1.33/32 is directly connected, GigabitEthernet0/0/1
C           172.16.2.0/23 is directly connected, GigabitEthernet0/0/1
L           172.16.2.1/32 is directly connected, GigabitEthernet0/0/1
S*      0.0.0.0/0 [1/0] via 172.16.2.2
```

A packet sourced from 10.10.10.32 is destined for the internet.

A. 1
B. 2
C. 32

Answer: B

NEW QUESTION 352
- (Exam Topic 4)
Which command implies the use of SNMPv3?

A. snmp-server host
B. snmp-server community
C. snmp-server enable traps
D. snmp-server user

Answer: B

NEW QUESTION 353
- (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 356
- (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 361
- (Exam Topic 4)
Which two practices are recommended for an acceptable security posture in a network? (Choose two)

A. Backup device configurations to encrypted USB drives for secure retrieval
B. maintain network equipment in a secure location
C. Use a cryptographic keychain to authenticate to network devices
D. Place internal email and file servers in a designated DMZ
E. Disable unused or unnecessary ports, interfaces and services

Answer: CE

NEW QUESTION 365
- (Exam Topic 4)

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

Answer: C

NEW QUESTION 368
- (Exam Topic 4)
Refer to the exhibit.

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

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

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

Answer: D

NEW QUESTION 373
- (Exam Topic 4)
What provides connection redundancy increased bandwidth and load sharing between a wireless LAN controller and a Layer 2 switch?

A. VLAN trunking
B. tunneling
C. first hop redundancy
D. link aggregation

Answer: D

NEW QUESTION 376
- (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 381
- (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 386
- (Exam Topic 4)
Refer to the exhibit.

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

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

A network engineer started to configure two directly-connected routers as shown. Which command sequence must the engineer configure on R2 so that the two routers become OSPF neighbors?
A)
```
router ospf 1
    network 192.168.12.1 0.0.0.0 area 1
```

B)
```
interface GigabitEthernet0/1
    ip ospf 1 area 1
```

C)
```
interface GigabitEthernet0/1
    ip ospf 1 area 0
```

D)
```
router ospf 1
    network 192.168.12.0 0.0.0.127 area 0
```

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

Answer: D

NEW QUESTION 391
- (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 396
- (Exam Topic 4)
Under which condition is TCP preferred over UDP?

A. UDP is used when low latency is optimal, and TCP is used when latency is tolerable.
B. TCP is used when dropped data is more acceptable, and UDP is used when data is accepted out- of-order.

C. TCP is used when data reliability is critical, and UDP is used when missing packets are acceptable.
D. UDP is used when data is highly interactive, and TCP is used when data is time-sensitive.

Answer: C

NEW QUESTION 401
- (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 405
- (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 408
- (Exam Topic 4)
Refer to the exhibit.

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

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

C)
Select **WPA Policy**
Enable **CCKM**
Enable **PSK**

D)
Disable **PMF**
Enable **PSK**
Enable **802.1x**

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

Answer: C

NEW QUESTION 410
- (Exam Topic 4)

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Graphical user interface Description automatically generated

NEW QUESTION 413
- (Exam Topic 4)
A Cisco engineer notices thai two OSPF neighbors are connected using a crossover Ethernet cable. The neighbors are taking too long to become fully adjacent. Which command must be issued under the interface configuration on each router to reduce the time required for the adjacency to reach the FULL state?

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

Answer: C

NEW QUESTION 414
- (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:

NEW QUESTION 417
- (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 418
- (Exam Topic 4)
Two switches have been implemented and all interfaces are at the default configuration level. A trunk link must be implemented between two switches with these

requirements:
• using an industry-standard trunking protocol
• permitting VLANs 1 -10 and denying other VLANs How must the interconnecting ports be configured?

A)

```
switchport mode dynamic
channel-protocol lacp
switchport trunk allowed vlans 1-10
```

B)

```
switchport mode trunk
switchport trunk encapsulation dot1q
switchport trunk allowed vlans 1-10
```

C)

```
switchport mode trunk
switchport trunk allowed vlans 1-10
switchport trunk native vlan 11
```

D)

```
switchport mode dynamic desirable
channel-group 1 mode desirable
switchport trunk encapsulation isl
switchport trunk allowed vlan except 11-4094
```
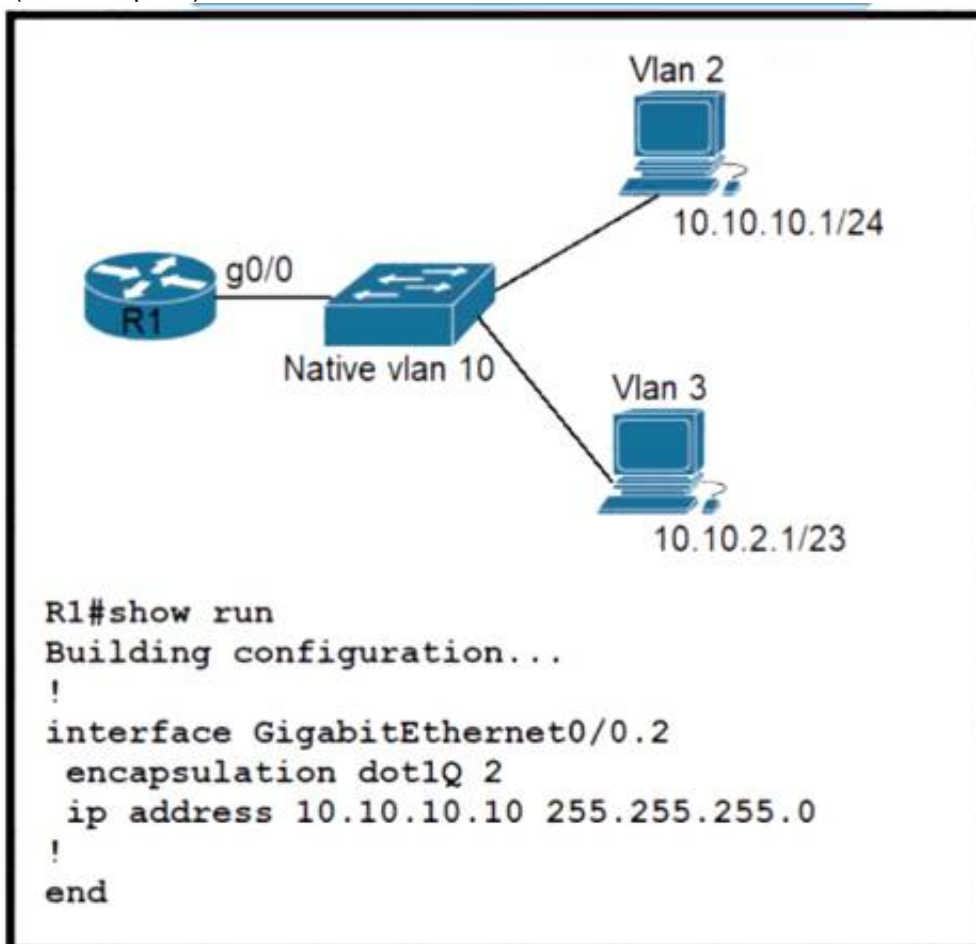
A. Option A
B. Option B
C. Option C
D. Option D

Answer: D

NEW QUESTION 423
- (Exam Topic 4)


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

A)

```
interface GigabitEthernet0/0
    ip address 10.10.2.10 255.255.252.0
```

B)

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

C)

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

D)

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

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

Answer: C

NEW QUESTION 426
- (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 431
- (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
```
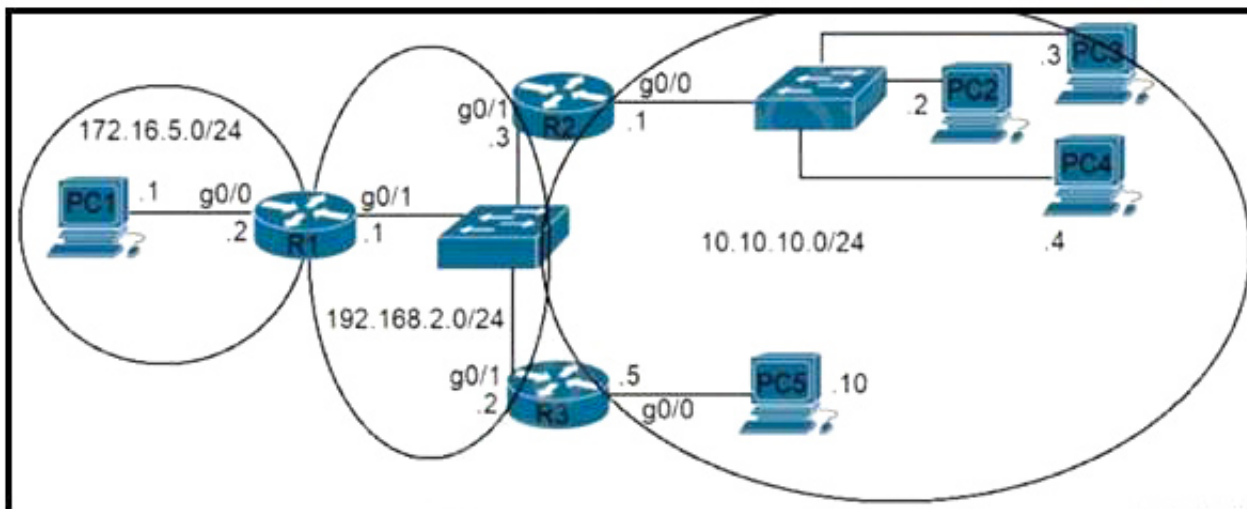
When router R1 is sending traffic to IP address 10.56.192 1, which interface or next hop address does it use to route the packet?

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

Answer: B

NEW QUESTION 436
- (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 440
- (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 442
- (Exam Topic 4)
Drag and drop the characteristic from the left onto the IPv6 address type on the right.

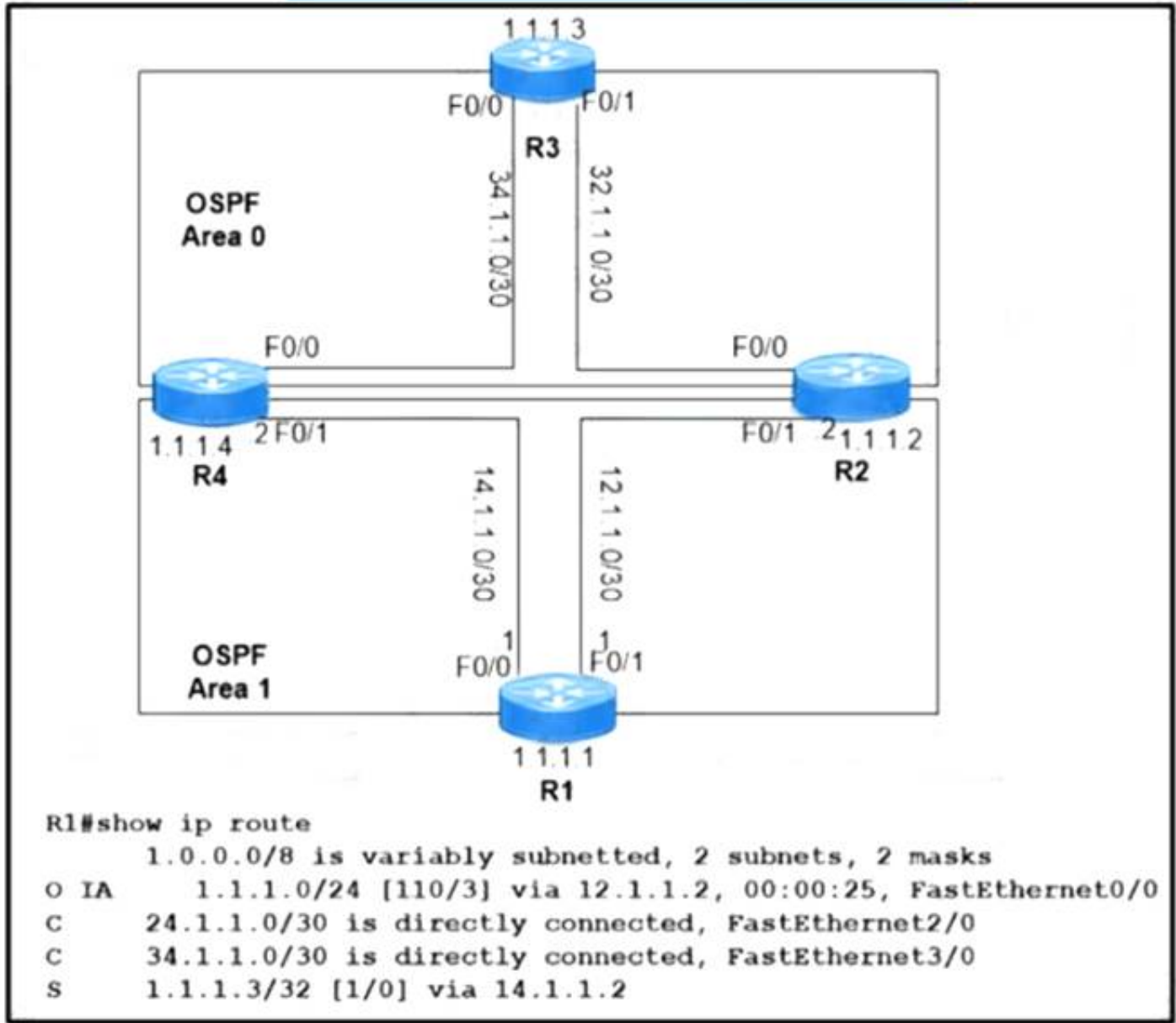| is unable to route on the internet	Global Unicast Address
is a counterpart of private IPv4 addresses	
enables aggregation of routing prefixes	Unique Local
is routable and reachable via the Internet	

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Graphical user interface, application Description automatically generated

NEW QUESTION 445
- (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 449
- (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

has a unicast source sent to a group

is routed to the nearest interface that has the address

Anycast

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Graphical user interface, application Description automatically generated

NEW QUESTION 453
- (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 456
- (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 457
- (Exam Topic 4)
Refer to the exhibit.
When router R1 receives a packet with destination IP address 10.56.0 62. through which interface does it route the packet?

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

Answer: B

NEW QUESTION 462
- (Exam Topic 4)
Drag and drop the SNMP components from the left onto the description on the right.

agent		collection of uniquely identifiable objects whose state can be interrogated over SNMP
managed device		network node controlled by SNMP
MIB		system that runs monitoring applications and controls network nodes
NMS		SNMP component that captures and translates device and network data

A. Mastered
B. Not Mastered

Answer: A

Explanation:
1-2
2-3
3-1

NEW QUESTION 465
- (Exam Topic 4)
Refer to the exhibit.
A network engineer must configure communication between PC A and the file server. Which commend must be configured on switch A to prevent interruption of other communications?


```
Switch A
Vlan 10, 11, 12, 13

interface GigabitEthernet0/1
 switchport mode trunk
 switchport trunk allowed vlan 10-12
!
interface GigabitEthernet0/4
 switchport access vlan 13
 switchport mode access
```

```
Switch B
Vlan 10, 11, 12, 13

interface GigabitEthernet0/1
 switchport mode trunk
!
interface GigabitEthernet0/3
 switchport access vlan 13
 switchport mode access
```

A. switch port trunk allowed vlan 12
B. switchport trunk allowed vlan none
C. switchport trunk allowed vlan add 13
D. switch port trunk allowed vlan remove 10-11

Answer: C

NEW QUESTION 469
- (Exam Topic 4)
Why is a first-hop redundancy protocol implemented?

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

Answer: A

NEW QUESTION 470
- (Exam Topic 4)
What is the put method within HTTP?

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

Answer: D

NEW QUESTION 474
- (Exam Topic 4)
Drag and drop the functions of AAA supporting protocols from the left onto the protocols on the right.

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

A. Mastered
B. Not Mastered

Answer: A

Explanation:
A picture containing graphical user interface Description automatically generated

NEW QUESTION 477
- (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 480
- (Exam Topic 4)
Refer to the exhibit.

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

Local Intf: G11/0/21
Chassis id: 308b.b2b3.2880
Port id: G11/0/21
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 484
- (Exam Topic 4)
What is an advantage of using auto mode versus static mode for power allocation when an access point is connected to a PoE switch port?

A. All four pairs of the cable are used
B. It detects the device is a powered device
C. The default level is used for the access point
D. Power policing is enabled at the same time

Answer: D

NEW QUESTION 486
- (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		UDP
SNMP		
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 490
- (Exam Topic 4)
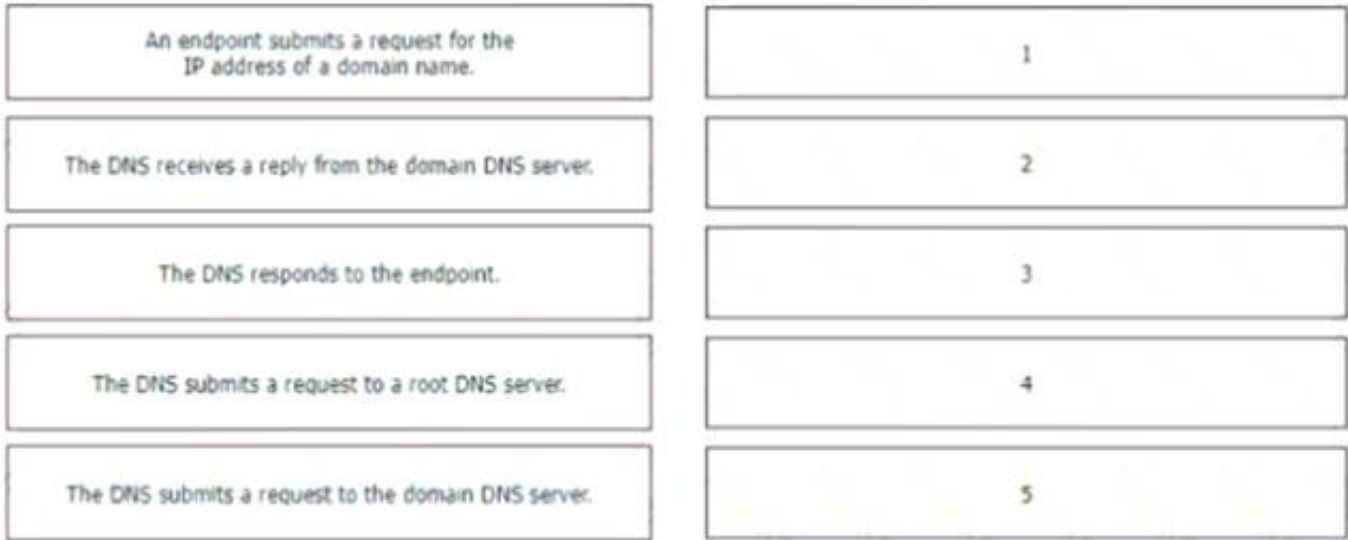What is the default port-security behavior on a trunk link?

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.
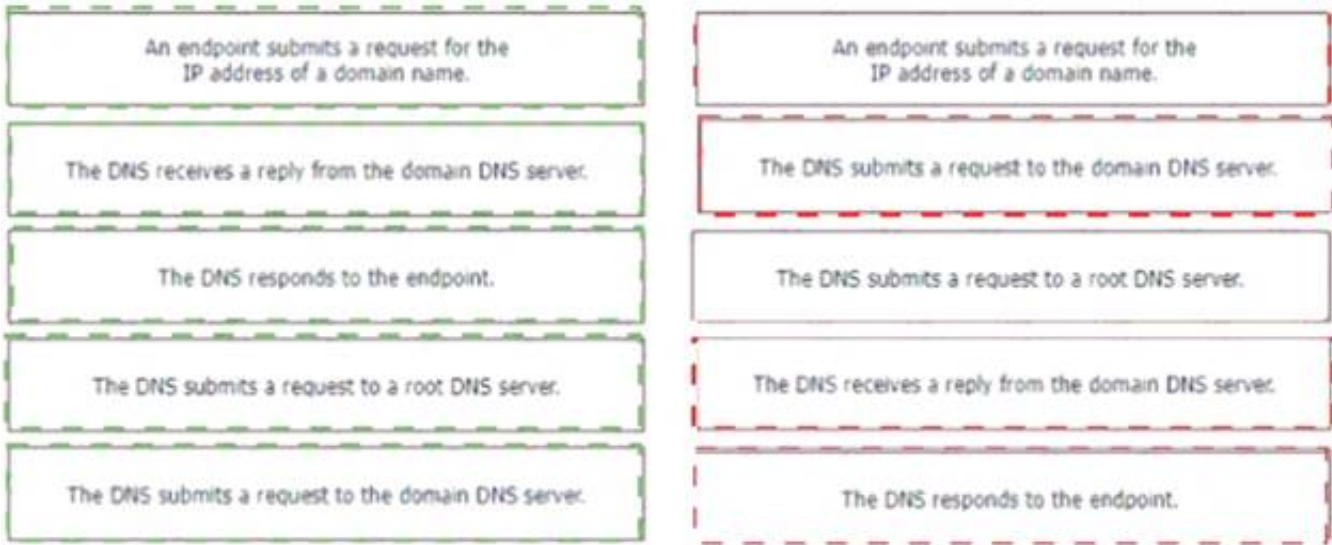
Answer: A

NEW QUESTION 492
- (Exam Topic 4)
Drag and drop the steps in a standard DNS lookup operation from the left into the order on the right.

An endpoint submits a request for the IP address of a domain name.	1
The DNS receives a reply from the domain DNS server.	2
The DNS responds to the endpoint.	3
The DNS submits a request to a root DNS server.	4
The DNS submits a request to the domain DNS server.	5

A. Mastered
B. Not Mastered

Answer: A

Explanation:

An endpoint submits a request for the IP address of a domain name.	An endpoint submits a request for the IP address of a domain name.
The DNS receives a reply from the domain DNS server.	The DNS submits a request to the domain DNS server.
The DNS responds to the endpoint.	The DNS submits a request to a root DNS server.
The DNS submits a request to a root DNS server.	The DNS receives a reply from the domain DNS server.
The DNS submits a request to the domain DNS server.	The DNS responds to the endpoint.

NEW QUESTION 497
- (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 499
- (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 502
- (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?
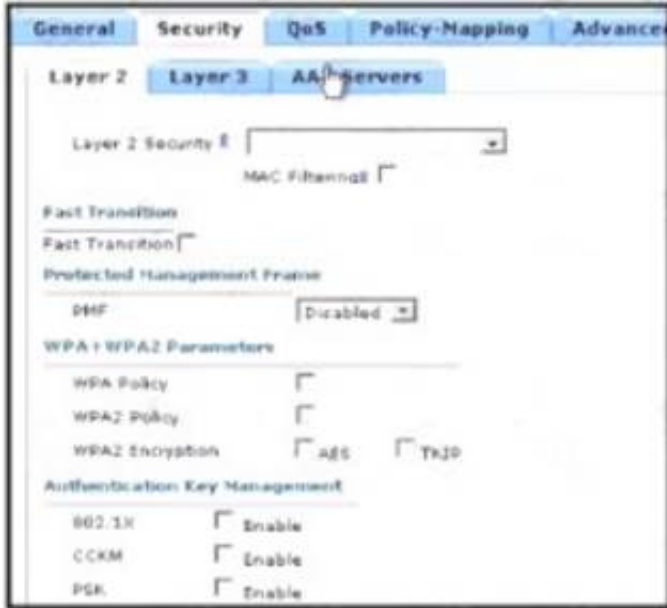
A. switchport port-security mac-address abcd.abcd.abcd
B. switchport port-security mac-address abed.abed.abed vlan 4
C. switchport port-security mac-address sticky abcd.abcd.abcd vlan 4
D. switchport port-security mac-address abcd.abcd.abcd vlan voice

Answer: A

NEW QUESTION 505
- (Exam Topic 4)
Refer to the exhibit.

What are the two steps an engineer must take to provide the highest encryption and authentication using domain credentials from LDAP?
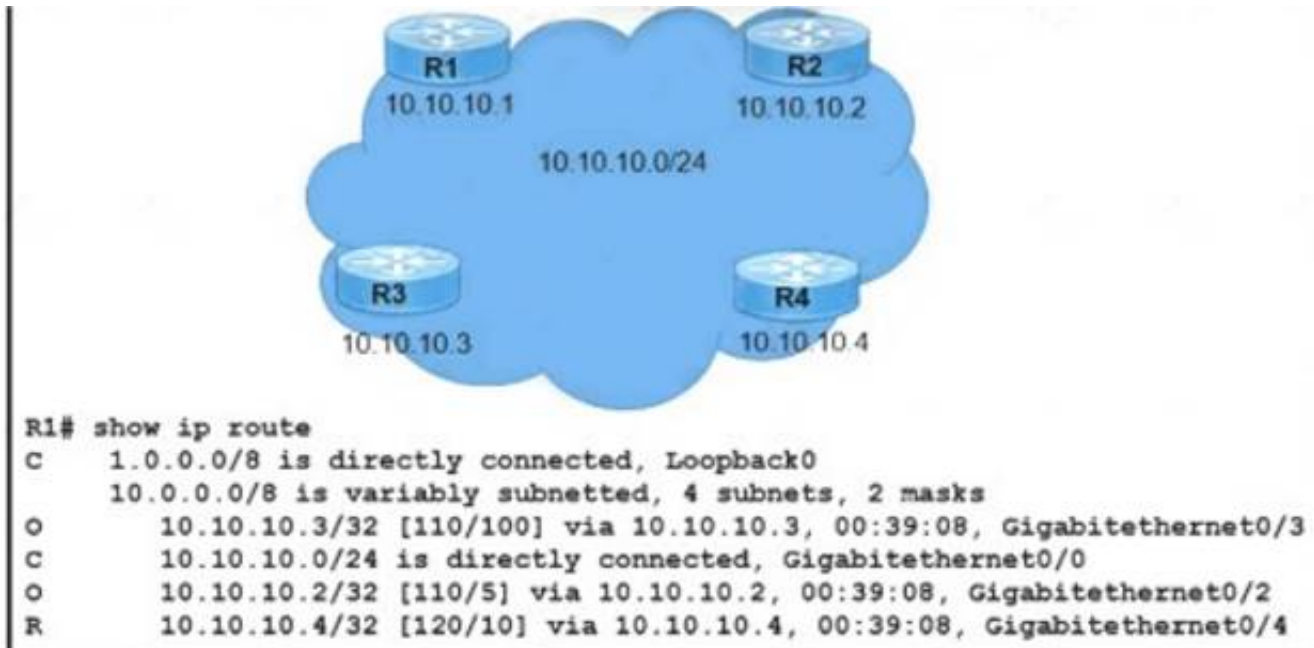
A. Select PSK under Authentication Key Management
B. Select WPA+WPA2 on Layer 2 Security
C. Select Static-WEP + 802.1X on Layer 2 Security
D. Select WPA Policy with TKIP Encryption
E. Select 802.1X from under Authentication Key Management

Answer: BE

NEW QUESTION 508
- (Exam Topic 4)
Refer to the exhibit.


```
R1# show ip route
C    1.0.0.0/8 is directly connected, Loopback0
     10.0.0.0/8 is variably subnetted, 4 subnets, 2 masks
O       10.10.10.3/32 [110/100] via 10.10.10.3, 00:39:08, Gigabitethernet0/3
C       10.10.10.0/24 is directly connected, Gigabitethernet0/0
O       10.10.10.2/32 [110/5] via 10.10.10.2, 00:39:08, Gigabitethernet0/2
R       10.10.10.4/32 [120/10] via 10.10.10.4, 00:39:08, Gigabitethernet0/4
```

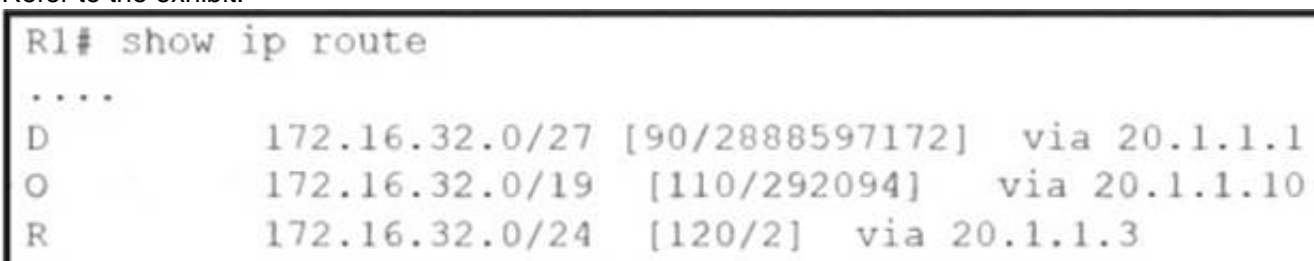Which next-hop IP address has the least desirable metric when sourced from R1?

A. 10.10.10.5
B. 10.10.10.3
C. 10.10.10.4
D. 10.10.10.2

Answer: C

NEW QUESTION 511
- (Exam Topic 4)
Refer to the exhibit.


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

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

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

Answer: D

NEW QUESTION 514
- (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 516
- (Exam Topic 4)
Which cipher is supported for wireless encryption only with the WPA2 standard?

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

Answer: B

NEW QUESTION 521
- (Exam Topic 4)
Drag and drop the characteristic from the left onto the IPv6 address type on the right.

	Global Unicast Address
provides for one-to-one communication	
confined to a single link	

	Link-Local Address
serves as the next-hop addresses	
is routable and reachable via the Internet	

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Graphical user interface, application Description automatically generated

NEW QUESTION 526
- (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 527
- (Exam Topic 4)
What is a zero-day exploit?

A. It is when a new network vulnerability is discovered before a fix is available
B. It is when the perpetrator inserts itself in a conversation between two parties and captures or alters data.
C. It is when the network is saturated with malicious traffic that overloads resources and bandwidth
D. It is when an attacker inserts malicious code into a SOL server.

Answer: A

Explanation:
https://www.kaspersky.com/resource-center/definitions/zero-day-exploit

NEW QUESTION 532
- (Exam Topic 4)
Which Cisco proprietary protocol ensures traffic recovers immediately, transparently, and automatically when edge devices or access circuits fail?

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

Answer: D

NEW QUESTION 533
- (Exam Topic 4)
What are two advantages of implementing a controller-based architecture instead of a traditional network architecture? (Choose two.)

A. It allows for seamless connectivity to virtual machines.
B. It supports complex and high-scale IP addressing schemes.
C. It enables configuration task automation.
D. It provides increased scalability and management options.
E. It increases security against denial-of-service attacks.

Answer: CD

NEW QUESTION 535
- (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 540
- (Exam Topic 4)
What is the purpose of using First Hop Redundancy Protocol on a specific subnet?

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

Answer: D

NEW QUESTION 541
- (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 544
- (Exam Topic 4)
Refer to the exhibit.
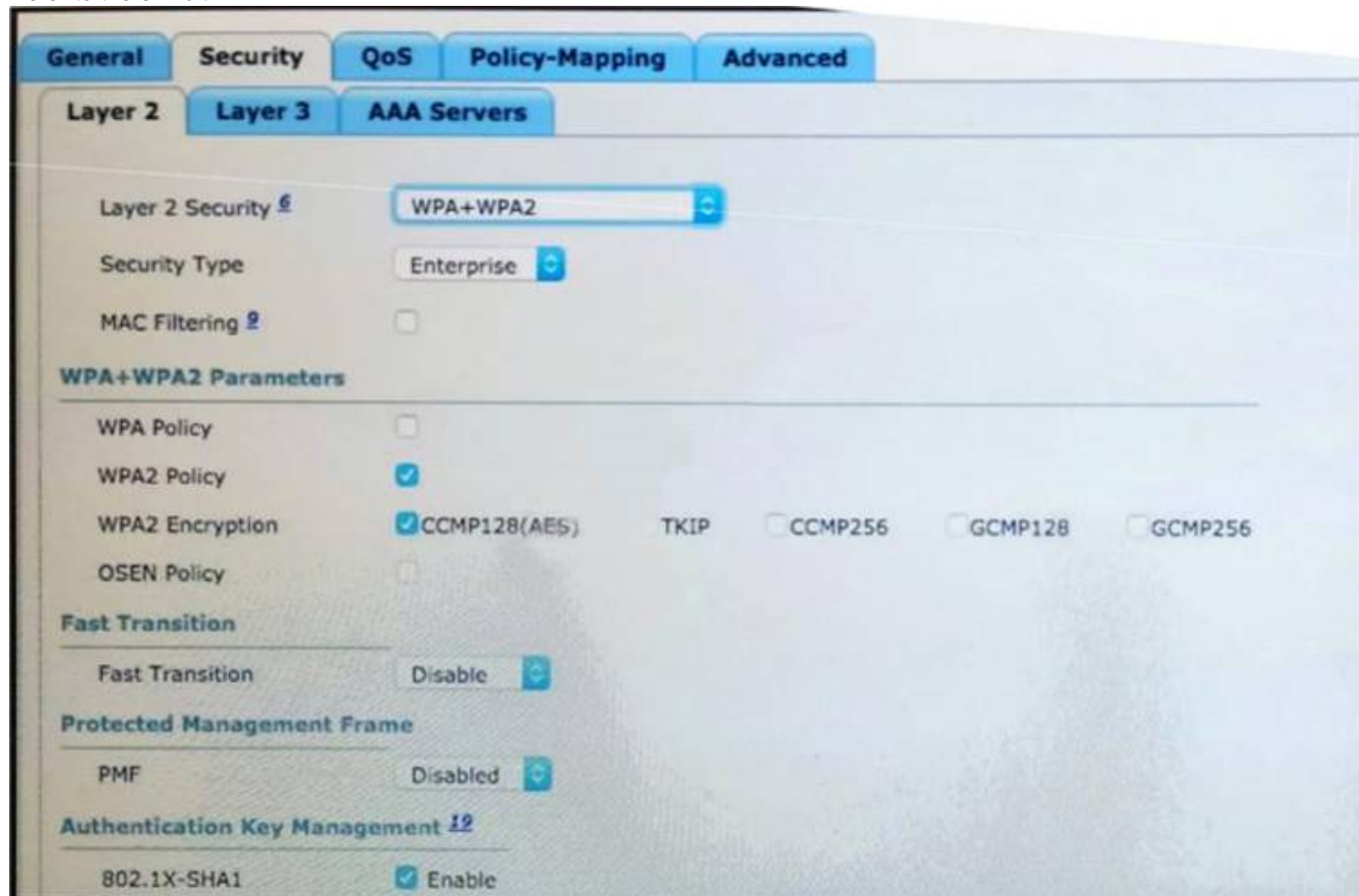
What must be configured to enable 802.11w on the WLAN?

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

Answer: A

NEW QUESTION 545
- (Exam Topic 4)
What is a link-local all-nodes IPv6 multicast address?

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

Answer: D

NEW QUESTION 548
- (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 549
- (Exam Topic 3)
Drag and drop the descriptions of AAA services from the left onto the corresponding services on the right.

allows the user to change to enable mode	Accounting
limits the user's access permissions	
logs session statistics	Authentication
records user commands	
secures access to routers	Authorization
validates user credentials	

A. Mastered
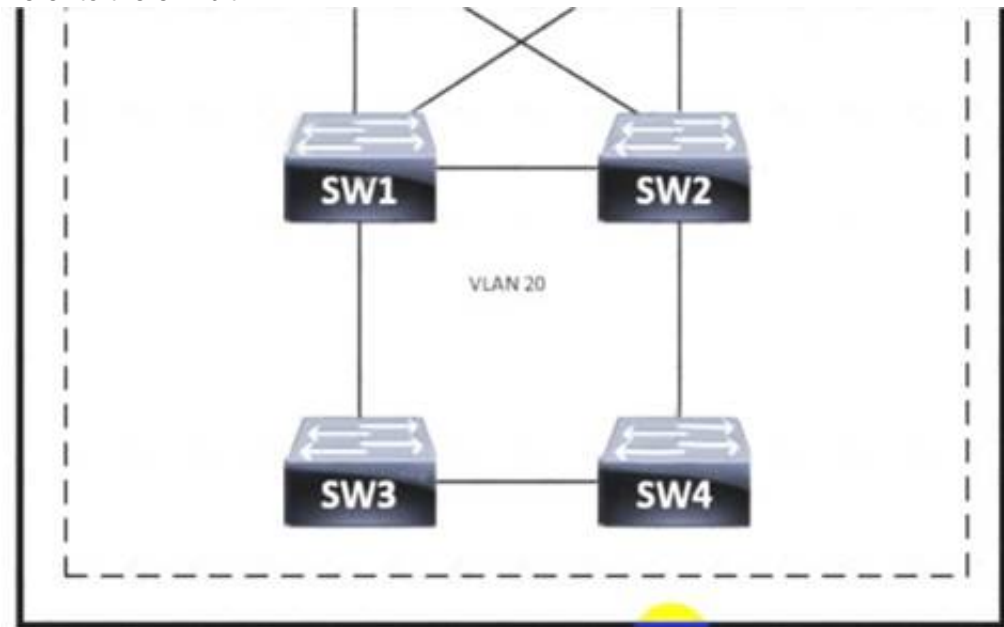B. Not Mastered

Answer: A

Explanation:

Accounting
- records user commands
- logs session statistics

Authentication
- validates user credentials
- allows the user to change to enable mode

Authorization
- limits the user's access permissions
- secures access to routers

NEW QUESTION 551
- (Exam Topic 3)
Refer to the exhibit.

Which switch becomes the root of a spanning tree for VLAN 20 if all li links are of equal speed?

```
SW1 = 24596 0018.184e.3c00
SW2 = 28692 004a.14e5.4077
SW3 = 32788 0022.55cf.dd00
SW4 = 64000 0041.454d.407f
```
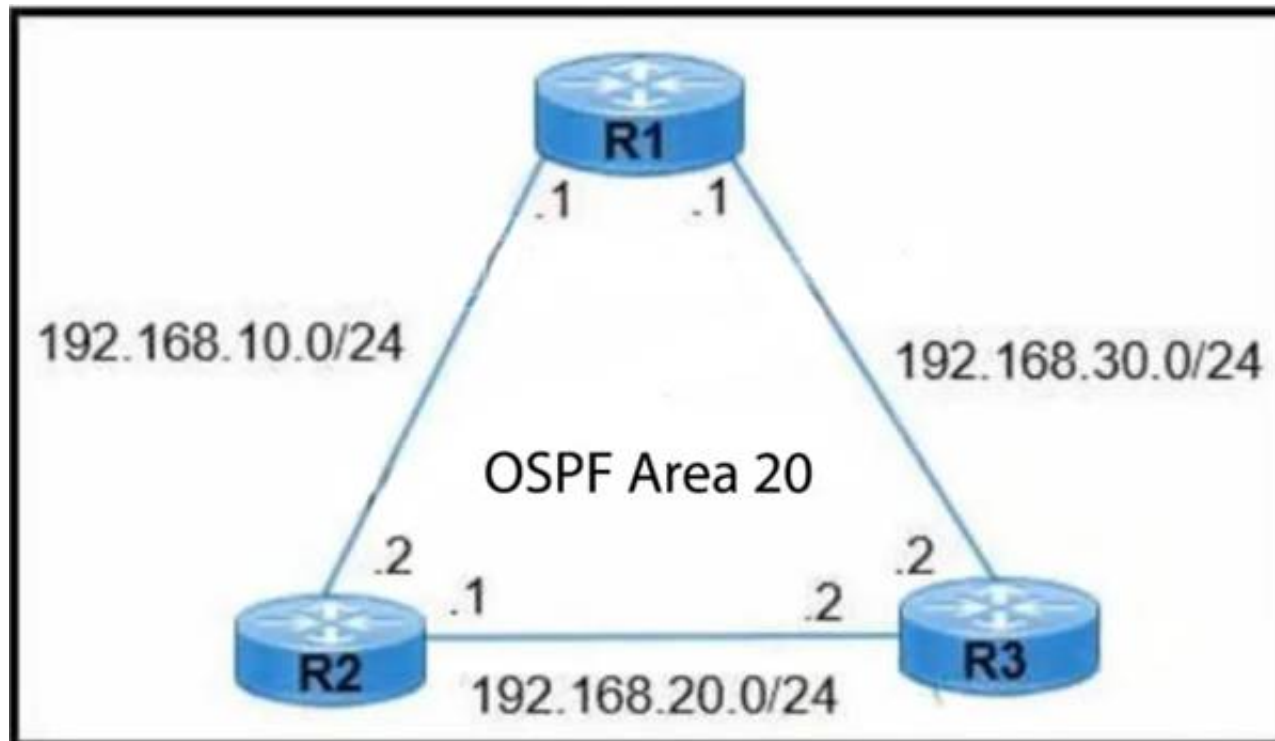
A. SW1
B. SW2
C. SW3
D. SW4

Answer: C

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

R1 learns all routes via OSPF Which command configures a backup static route on R1 to reach the 192 168.20.0/24 network via R3?
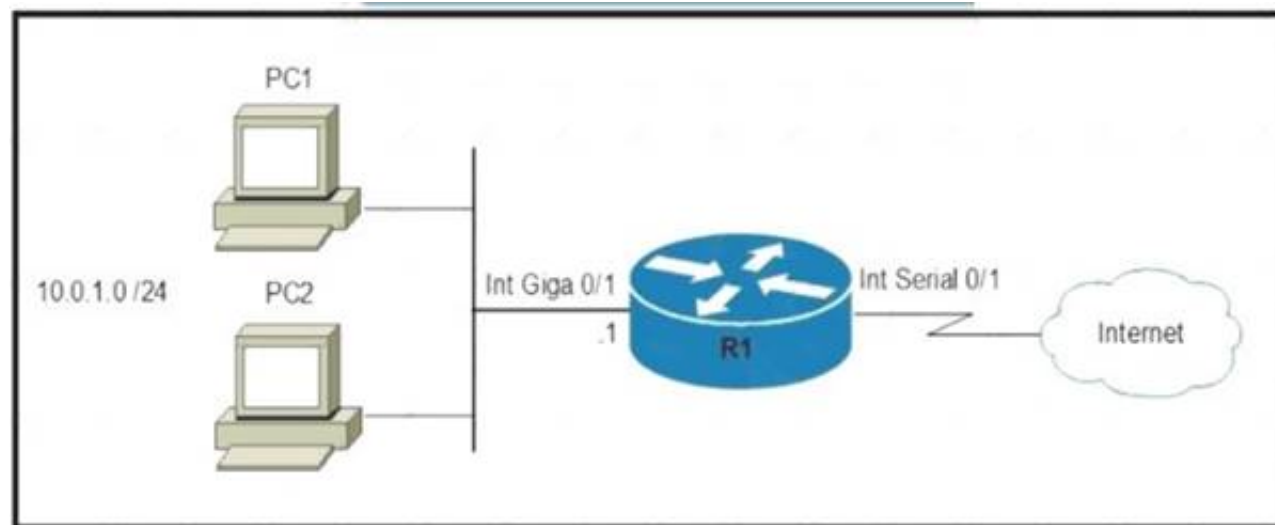
A. R1(config)#ip route 192.168.20.0 255.255.0.0 192.168.30.2
B. R1(config)#ip route 192.168.20.0 255.255.255.0 192.168.30.2 90
C. R1(config)#ip route 192.168.20.0 255.255.255.0 192.168.30.2 111
D. R1(config)#ip route 192.168.20.0 255.255.255.0 192.168.30.2

Answer: C

NEW QUESTION 559
- (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 560
- (Exam Topic 3)
Which two network actions occur within the data plane? (Choose two.)

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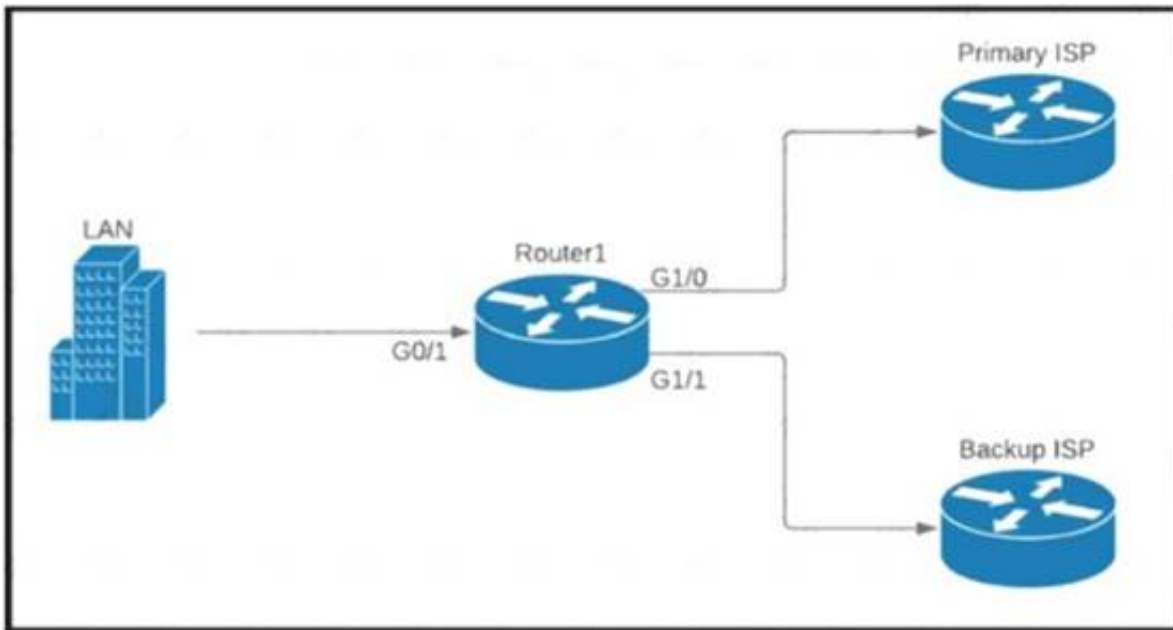E. Reply to an incoming ICMP echo request.

Answer:

BD

NEW QUESTION 561
- (Exam Topic 3)
Refer to the exhibit.

A company is configuring a failover plan and must implement the default routes in such a way that a floating static route will assume traffic forwarding when the primary link goes down. Which primary route configuration must be used?
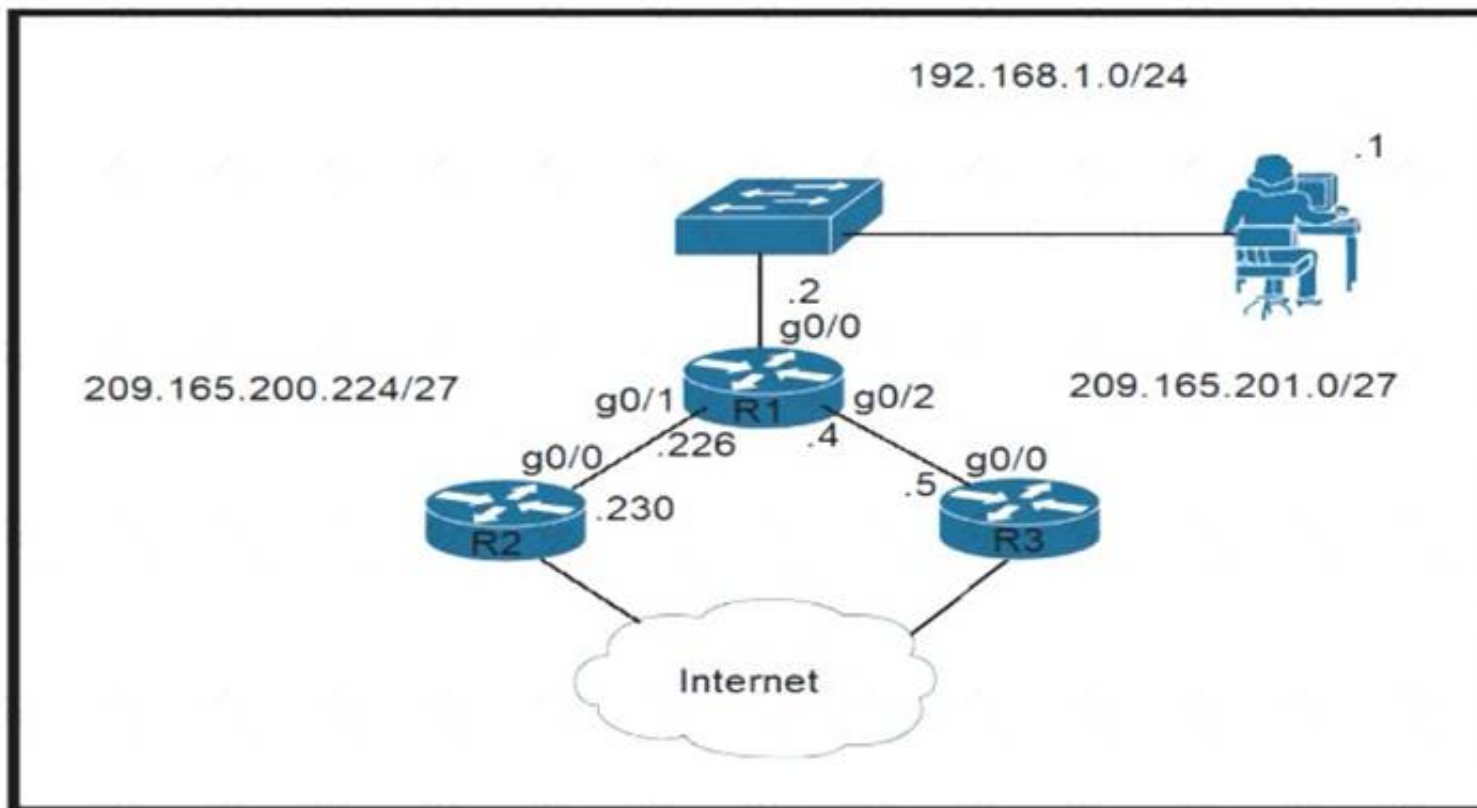
A. ip route 0.0.0.0 0.0.0.0 192.168.0.2 GigabitEthernetl/0
B. ip route 0.0.0.0 0.0.0.0 192.168.0.2 tracked
C. ip route 0.0.0.0 0.0.0.0 192.168.0.2 floating
D. ip route 0.0.0.0 0.0.0.0 192.168.0.2

Answer: B

NEW QUESTION 562
- (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 566
- (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 571
- (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 576
- (Exam Topic 3)
Refer to the exhibit.

```
            Vlan2                                           Vlan2
            PC1          Fa 0/1          Fa 0/2            PC2

         0007.ec53.4289         SW1              0007.ec89.7513


        SW1#show run                  SW1#show mac-address-table
        Building configuration...              Mac Address Table
        !                            ----------------------------------------------------
        interface FastEthernet0/1    Vlan    Mac Address      Type        Ports
         switchport access vlan 2    ----    -----------      --------    -----
         switchport mode access        2     0007.ec53.4289   DYNAMIC     Fa0/1
        !
        interface FastEthernet0/2
         switchport access vlan 2
         switchport trunk allowed vlan 3
         switchport mode trunk
```

An engineer has started to configure replacement switch SW1. To verify part of the configuration, the engineer issued the commands as shown and noticed that the entry for PC2 is missing. Which change must be applied to SW1 so that PC1 and PC2 communicate normally?
A)

```
SW1(config)#interface fa0/2
SW1(config-if)#no switchport mode trunk
SW1(config-if)#no switchport trunk allowed vlan 3
SW1(config-if)#switchport mode access
```

B)

```
SW1(config)#interface fa0/1
SW1(config-if)#no switchport access vlan 2
SW1(config-if)#switchport trunk native vlan 2
SW1(config-if)#switchport trunk allowed vlan 3
```

C)

```
SW1(config)#interface fa0/1
SW1(config-if)#no switchport access vlan 2
SW1(config-if)#switchport access vlan 3
SW1(config-if)#switchport trunk allowed vlan 2
```

D)

```
SW1(config)#interface fa0/2
SW1(config-if)#no switchport access vlan 2
SW1(config-if)#no switchport trunk allowed vlan 3
SW1(config-if)#switchport trunk allowed vlan 2
```
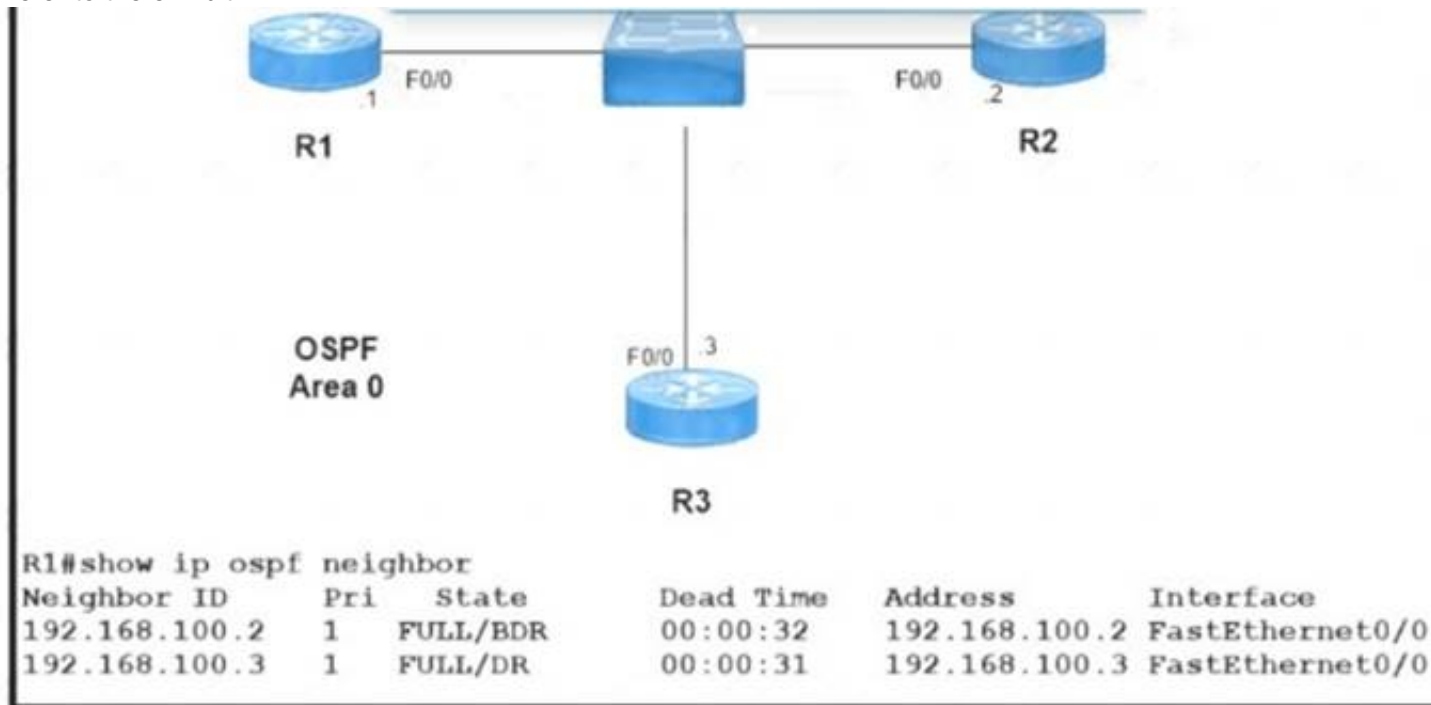
A. Option A
B. Option B
C. Option C
D. Option D

Answer: A

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


```
R1#show ip ospf neighbor
Neighbor ID      Pri    State       Dead Time    Address           Interface
192.168.100.2    1      FULL/BDR    00:00:32     192.168.100.2     FastEthernet0/0
192.168.100.3    1      FULL/DR     00:00:31     192.168.100.3     FastEthernet0/0
```

Which two configurations must the engineer apply on this network so that R1 becomes the DR? (Choose two.)
A)
```
R1(config)#router ospf 1
R1(config-router)#router-id 192.168.100.1
```

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

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

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

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

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

Answer: BC

NEW QUESTION 584
- (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 585
- (Exam Topic 3)
A network administrator is setting up a new IPv6 network using the 64-bit address 2001 0EB8 00C1 2200:0001 0000 0000 0331/64 To simplify the configuration the administrator has decided to compress the address Which IP address must the administrator configure?

A. ipv6 address 21:EB8:C1:2200:1::331/64
B. ipv6 address 2001:EB8:C1:22:1::331/64
C. ipv6 address 2001 :EB8:C 1:2200.1 ::331-64
D. ipv6 address 2001:EB8:C1:2200:1:0000:331/64

Answer: C

NEW QUESTION 589
- (Exam Topic 3)
Drag and drop the functions of SNMP fault-management from the left onto the definitions on the right.
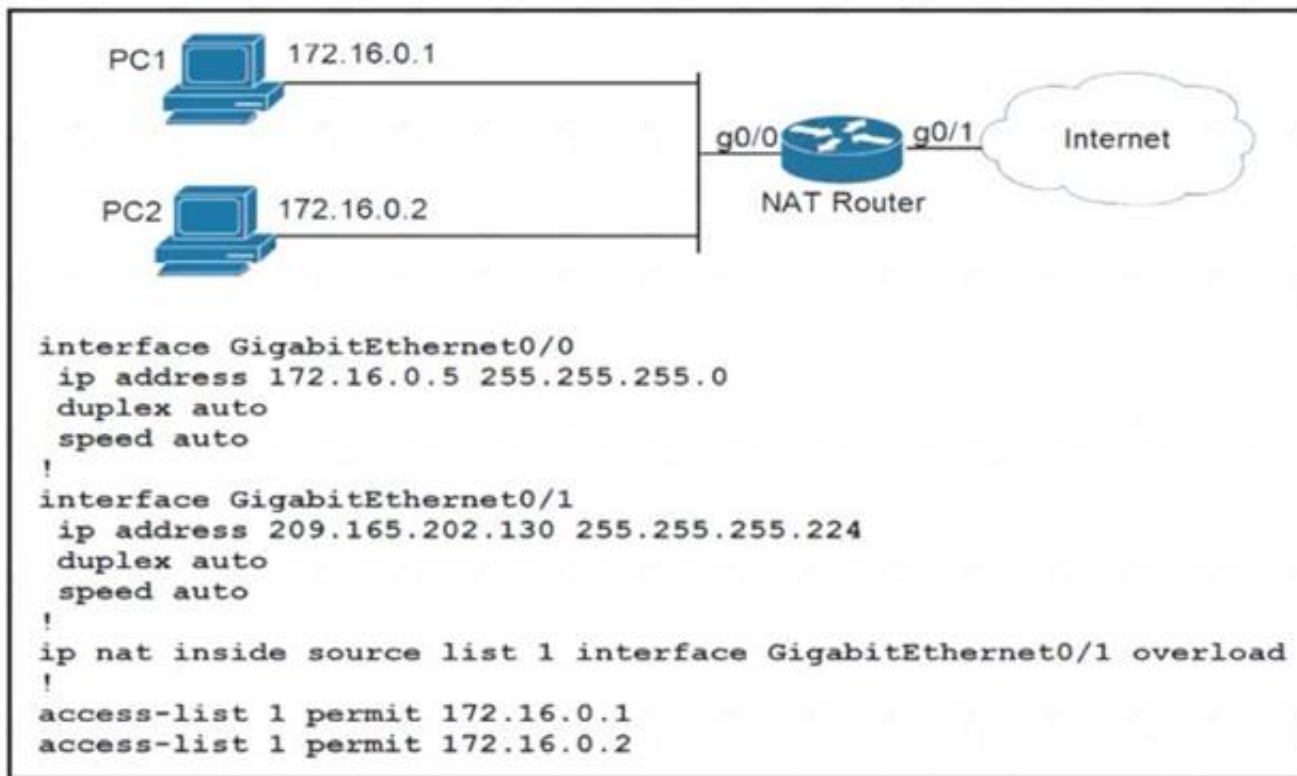
A. Mastered
B. Not Mastered

Answer: A

Explanation:
Table Description automatically generated

event correlation and aggregation
fault detection
fault diagnosis and isolation
problem resolution
restoration of service

NEW QUESTION 593
- (Exam Topic 3)
Refer to the exhibit.

```
interface GigabitEthernet0/0
 ip address 172.16.0.5 255.255.255.0
 duplex auto
 speed auto
!
interface GigabitEthernet0/1
 ip address 209.165.202.130 255.255.255.224
 duplex auto
 speed auto
!
ip nat inside source list 1 interface GigabitEthernet0/1 overload
!
access-list 1 permit 172.16.0.1
access-list 1 permit 172.16.0.2
```

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

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

Answer: B

NEW QUESTION 598
- (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    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, Serial0
O    10.0.10.0/24 [110/10] via 10.0.1.4, 00:39:08, Gigabit Ethernet 0/0
D    10.0.10.0/24 [90/10] via 10.0.1.5, 00:39:08, Gigabit Ethernet 0/1
```

Web traffic is coming in from the WAN interface. Which route takes precedence when the router is processing traffic destined for the LAN network at 10 0.10.0/24?
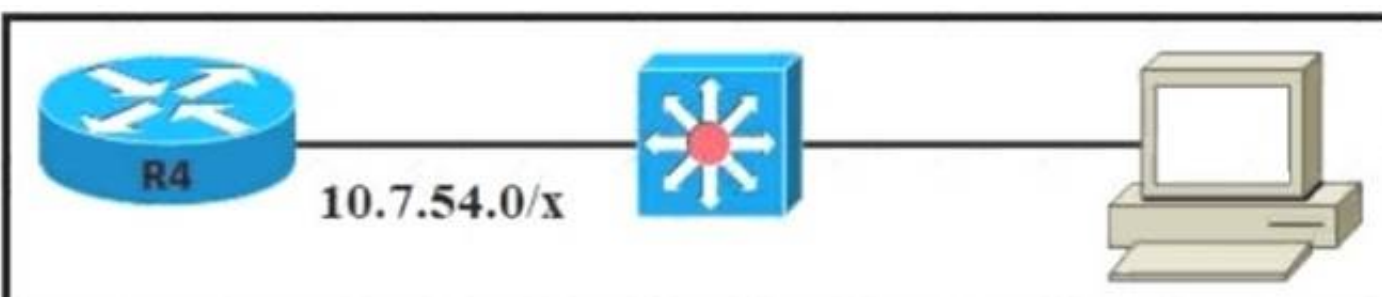
A. via next-hop 10.0.1.5
B. via next-hop 10 0 1.4
C. via next-hop 10.0 1.50
D. via next-hop 10.0 1 100

Answer: A

NEW QUESTION 601
- (Exam Topic 3)
Refer to the exhibit.

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

A)

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

B)

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

C)

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

D)

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

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

Answer: B

NEW QUESTION 602
- (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:

NEW QUESTION 604
- (Exam Topic 3)
Which value is the unique identifier that an access point uses to establish and maintain wireless connectivity to wireless network devices?

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

Answer: B

NEW QUESTION 606
- (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 607
- (Exam Topic 3)
Which two components comprise part of a PKI? (Choose two.)

A. preshared key that authenticates connections
B. RSA token
C. CA that grants certificates
D. clear-text password that authenticates connections
E. one or more CRLs

Answer: BC

NEW QUESTION 610
- (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 614
- (Exam Topic 3)
How does Rapid PVST+ create a fast loop-free network topology?

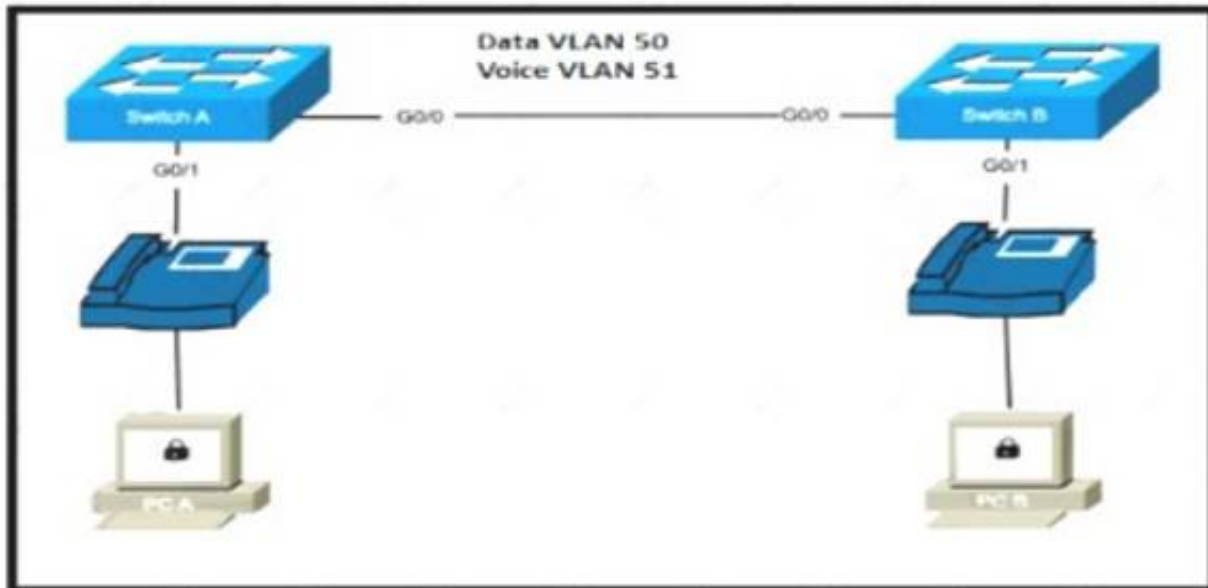A. It requires multiple links between core switches

B. It generates one spanning-tree instance for each VLAN
C. It maps multiple VLANs into the same spanning-tree instance
D. It uses multiple active paths between end stations.

Answer: A

NEW QUESTION 618
- (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 623
- (Exam Topic 3)
Refer to the exhibit.

```
Router#show run
Building configuration...

Current configuration : 1530 bytes
!
! Last configuration change at 11:32:53 UTC Sat Oct 10 2020
upgrade fpd auto
version 15.2
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname Router
!
boot-start-marker
boot-end-marker
!
!
!
no aaa new-model
no ip icmp rate-limit unreachable
!
!
!
!
--More--
```

Which minimum configuration items are needed to enable Secure Shell version 2 access to R15?

A)
```
Router(config)#hostname R15
R15(config)#crypto key generate rsa general-keys modulus 1024
R15(config-line)#line vty 0 15
R15(config-line)# transport input ssh
R15(config)#ip ssh source-interface Fa0/0
R15(config)#ip ssh stricthostkeycheck
```

B)
```
Router(config)#crypto key generate rsa general-keys modulus 1024
Router(config)#ip ssh version 2
Router(config-line)#line vty 0 15
Router(config-line)# transport input ssh
Router(config)#ip ssh logging events
R15(config)#ip ssh stricthostkeycheck
```

C)
```
Router(config)#ip domain-name cisco.com
Router(config)#crypto key generate rsa general-keys modulus 1024
Router(config)#ip ssh version 2
Router(config-line)#line vty 0 15
Router(config-line)# transport input all
Router(config)#ip ssh logging events
```

D)
```
Router(config)#hostname R15
R15(config)#ip domain-name cisco.com
R15(config)#crypto key generate rsa general-keys modulus 1024
R15(config)#ip ssh version 2
R15(config-line)#line vty 0 15
R15(config-line)# transport input ssh
```

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

Answer: C

NEW QUESTION 625
- (Exam Topic 3)
Which type of network attack overwhelms the target server by sending multiple packets to a port until the half-open TCP resources of the target are exhausted?
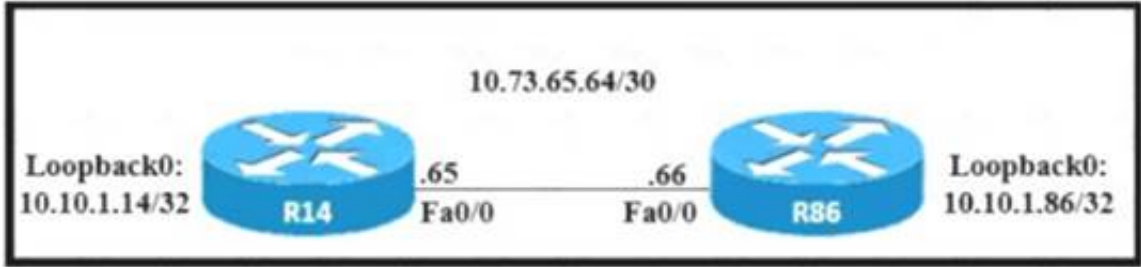
A. SYIM flood
B. reflection
C. teardrop
D. amplification

Answer: A

NEW QUESTION 630
- (Exam Topic 3)
Refer to the exhibit.

10.73.65.64/30

Loopback0:
10.10.1.14/32   R14   Fa0/0   .65   .66   Fa0/0   R86   Loopback0:
10.10.1.86/32

A static route must be configured on R14 to forward traffic for the 172 21 34 0/25 network that resides on R86 Which command must be used to fulfill the request?

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

Answer: D

NEW QUESTION 632
- (Exam Topic 3)
Which characteristic differentiates the concept of authentication from authorization and accounting?

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

Answer: D

NEW QUESTION 637
- (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	
	Traditional Networking
user input is a policy	
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 |
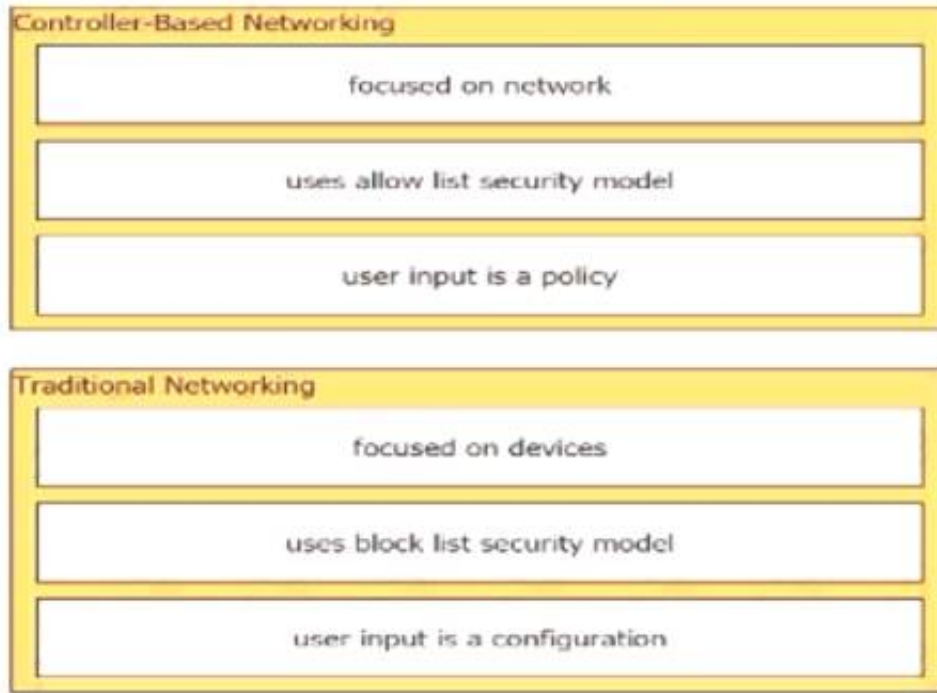
NEW QUESTION 641
- (Exam Topic 3)
What is a function of Opportunistic Wireless Encryption in an environment?

A. offer compression
B. increase security by using a WEP connection
C. provide authentication
D. protect traffic on open networks

Answer: D

NEW QUESTION 643
- (Exam Topic 3)
A network engineer is installing an IPv6-only capable device. The client has requested that the device IP address be reachable only from the internal network.
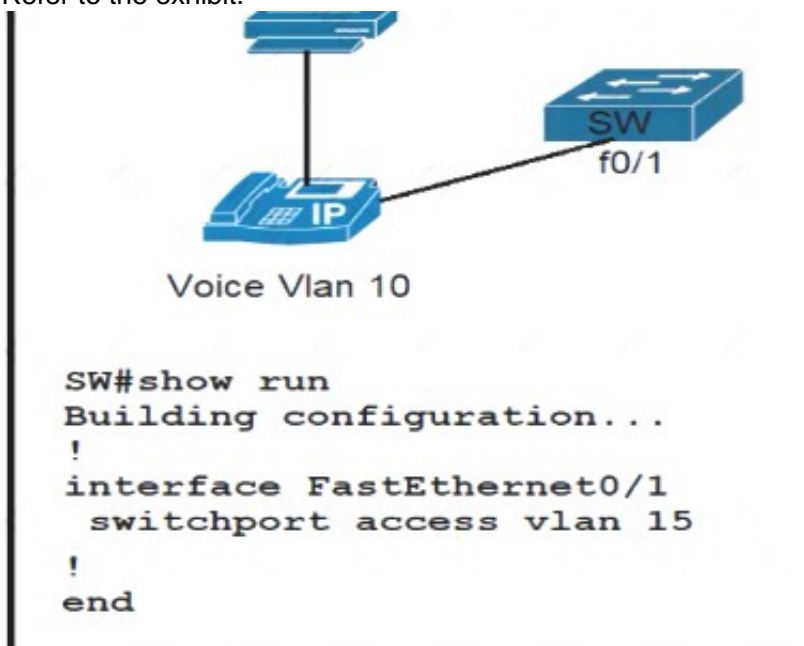Which type of IPv6 address must the engineer assign?

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

Answer: B

NEW QUESTION 644
- (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 647
- (Exam Topic 3)

A Cisco engineer is configuring a factory-default router with these three passwords:
• The user EXEC password for console access is p4ssw0rd1
• The user EXEC password for Telnet access is s3cr3t2
• The password for privileged EXEC mode is pnv4t3p4ss
Which command sequence must the engineer configured

A)

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

B)

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

C)

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

D)

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

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

Answer: B

NEW QUESTION 652
- (Exam Topic 3)
Which two spanning-tree states are bypassed on an interface running PortFast? (Choose two.)

A. disabled
B. listening
C. forwarding
D. learning
E. blocking

Answer: BD

NEW QUESTION 653
- (Exam Topic 3)
What is the function of the controller in a software-defined network?

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

Answer: C

NEW QUESTION 656
- (Exam Topic 3)
What is the purpose of the ip address dhcp command?

A. to configure an Interface as a DHCP server

B. to configure an interface as a DHCP helper
C. to configure an interface as a DHCP relay
D. to configure an interface as a DHCP client

Answer: D

NEW QUESTION 661
- (Exam Topic 3)
Refer to the exhibit.

```
Switch2# show lldp
Global LLDP Information
    Status: ACTIVE
    LLDP advertisements are sent every 30 seconds
    LLDP hold time advertised is 120 seconds
    LLDP interface reinitialization delay is 2 seconds
```

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 662
- (Exam Topic 3)
Which protocol uses the SSL?

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

Answer: C

NEW QUESTION 667
- (Exam Topic 3)
Refer to the exhibit.

```
Switch#show ip dhcp snooping
Switch DHCP snooping is enabled
Switch DHCP gleaning is disabled
DHCP snooping is configured on following VLANs:
1
DHCP snooping is operational on following VLANs:
1
DHCP snooping is configured on the following L3 Interfaces:
Insertion of option 82 is disabled
circuit-id default format: vlan-mod-port
remote-id: aabb.cc00.6500 (MAC)
Option 82 on untrusted port is not allowed
Verification of hwaddr field is enabled
Verification of giaddr field is enabled
DHCP snooping trust/rate is configured on the following Interfaces:
Interface Trusted Allow option Rate limit (pps)
```

```
Switch#show ip dhcp snooping statistics detail
Packets Processed by DHCP Snooping = 34
Packets Dropped Because
IDB not known = 0
Queue full = 0
Interface is in errdisabled = 0
Rate limit exceeded = 0
Received on untrusted ports = 32
Nonzero giaddr = 0
Source mac not equal to chaddr = 0
No binding entry = 0
Insertion of opt82 fail = 0
Unknown packet = 0
Interface Down = 0
Unknown output interface = 0
Misdirected Packets = 0
Packets with Invalid Size = 0
Packets with Invalid Option = 0
```

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

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

Answer: C

NEW QUESTION 672
- (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 673
- (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 678
- (Exam Topic 3)
What are two benefits of FHRPs? (Choose two.)

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

Answer: AB

NEW QUESTION 680
- (Exam Topic 3)
Refer to the exhibit.

```
      FastEthernet 0/1          FastEthernet 0/1
 SW1 |————————————————————————————————————| SW2
      FastEthernet 0/2          FastEthernet 0/2

SW1#show run interface fastEthernet 0/1
switchport trunk encapsulation dot1q
switchport mode trunk
switchport trunk allowed vlan 100,200,300
channel-group 1 mode on

SW1#show run interface fastEthernet 0/2
switchport trunk encapsulation dot1q
switchport mode trunk
switchport trunk allowed vlan 100,200,300
channel-group 1 mode on

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

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

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

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

Answer: D

NEW QUESTION 681

- (Exam Topic 2)
Refer to the exhibit.

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

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

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

Answer: D

NEW QUESTION 685
- (Exam Topic 3)
Drag and drop the facts about wireless architectures from the left onto the types of access point on the right. Not all options are used.

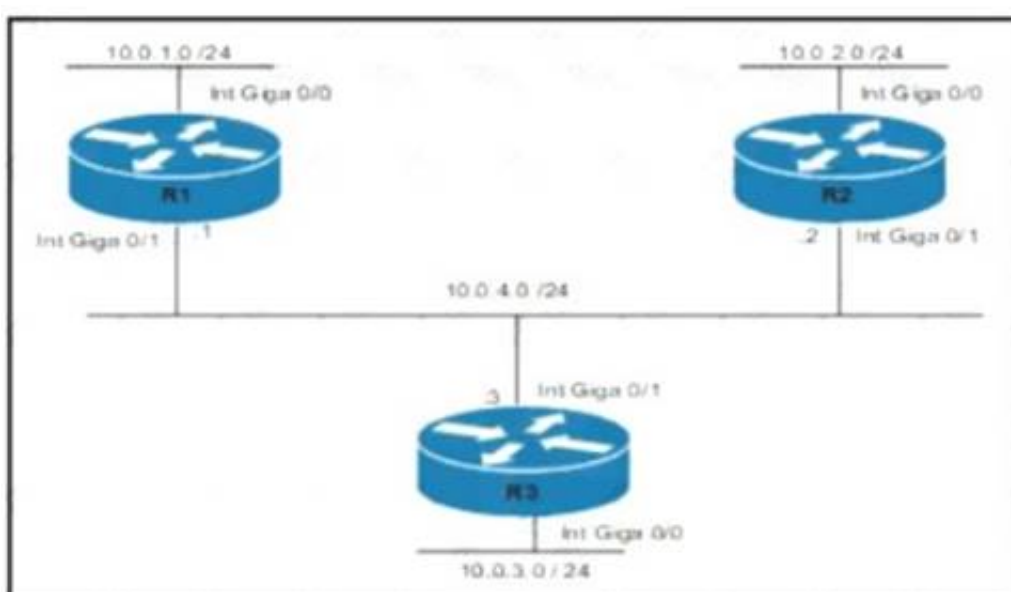

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Diagram Description automatically generated

NEW QUESTION 687
- (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 690
- (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.
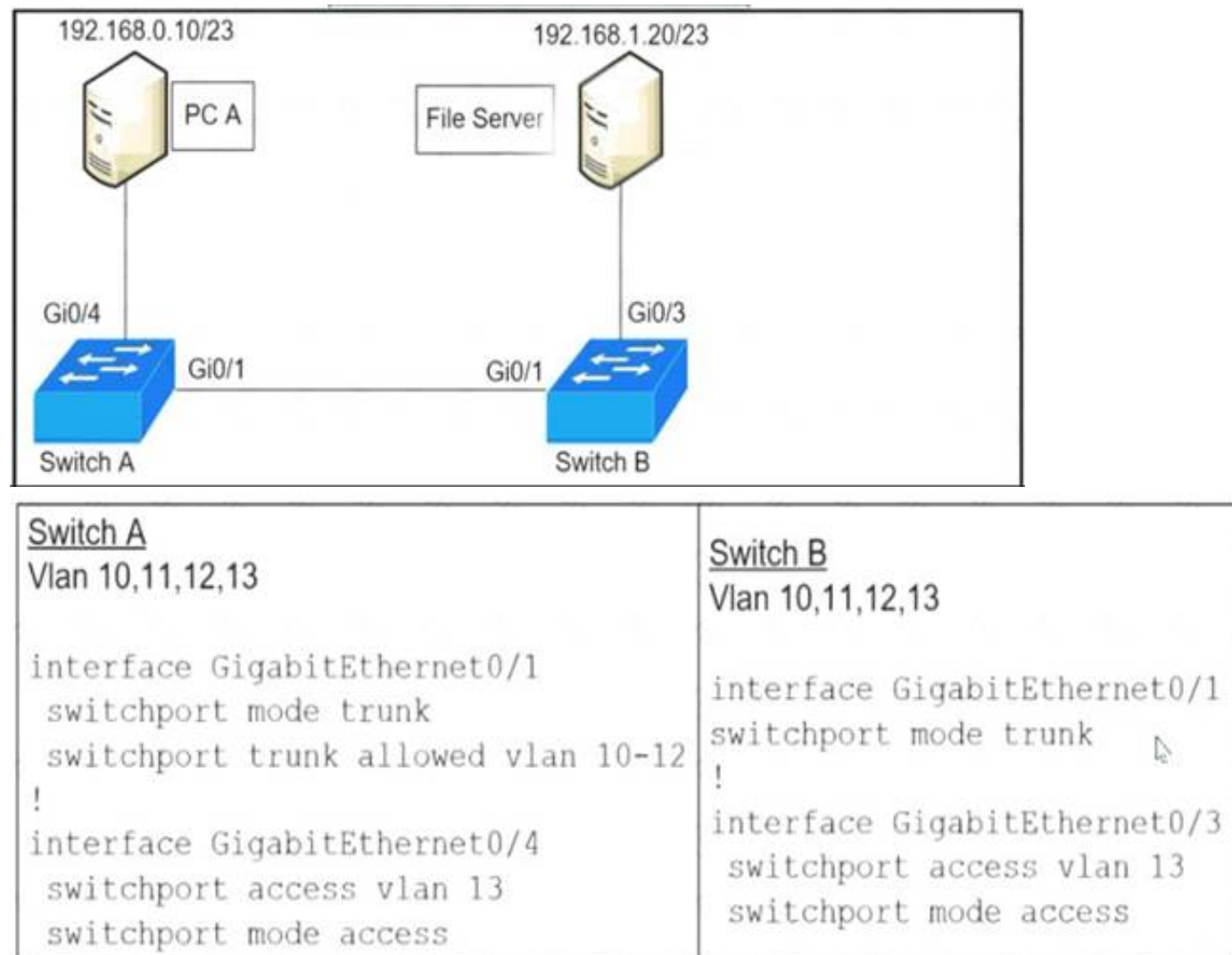http://www.java-allan
dsundry.com/2012/08/accept-header-vs-content-type-header.html#:~:text=Accept%20and%20Content%2Dtype

NEW QUESTION 694
- (Exam Topic 2)
Refer to the exhibit.

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

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

Answer: B

NEW QUESTION 696
- (Exam Topic 2)
Refer to the exhibit.
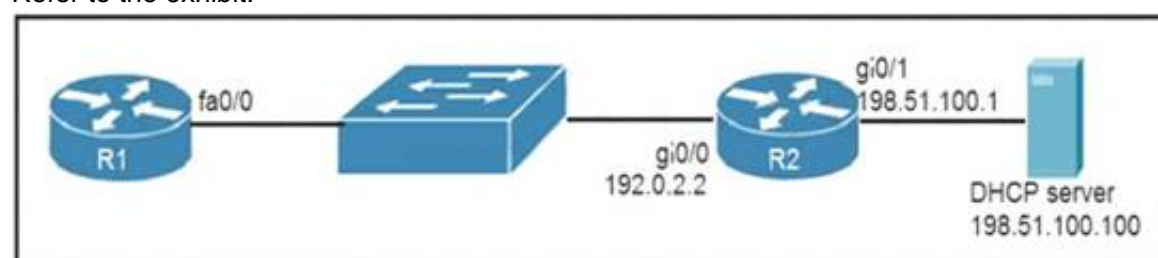
An engineer deploys a topology in which R1 obtains its IP configuration from DHCP. If the switch and DHCP server configurations are complete and correct. Which two sets of commands must be configured on R1 and R2 to complete the task? (Choose two)

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

Answer: BC

NEW QUESTION 697

- (Exam Topic 2)
Where is the interface between the control plane and data plane within the software-defined architecture?

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

Answer: A

NEW QUESTION 698
- (Exam Topic 2)
What is a difference between RADIUS and TACACS+?

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

Answer: C

NEW QUESTION 699
- (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 704
- (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 705
- (Exam Topic 2)
What benefit does controller-based networking provide versus traditional networking?

A. moves from a two-tier to a three-tier network architecture to provide maximum redundancy
B. provides an added layer of security to protect from DDoS attacks
C. allows configuration and monitoring of the network from one centralized port
D. combines control and data plane functionality on a single device to minimize latency

Answer: C

NEW QUESTION 708
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