

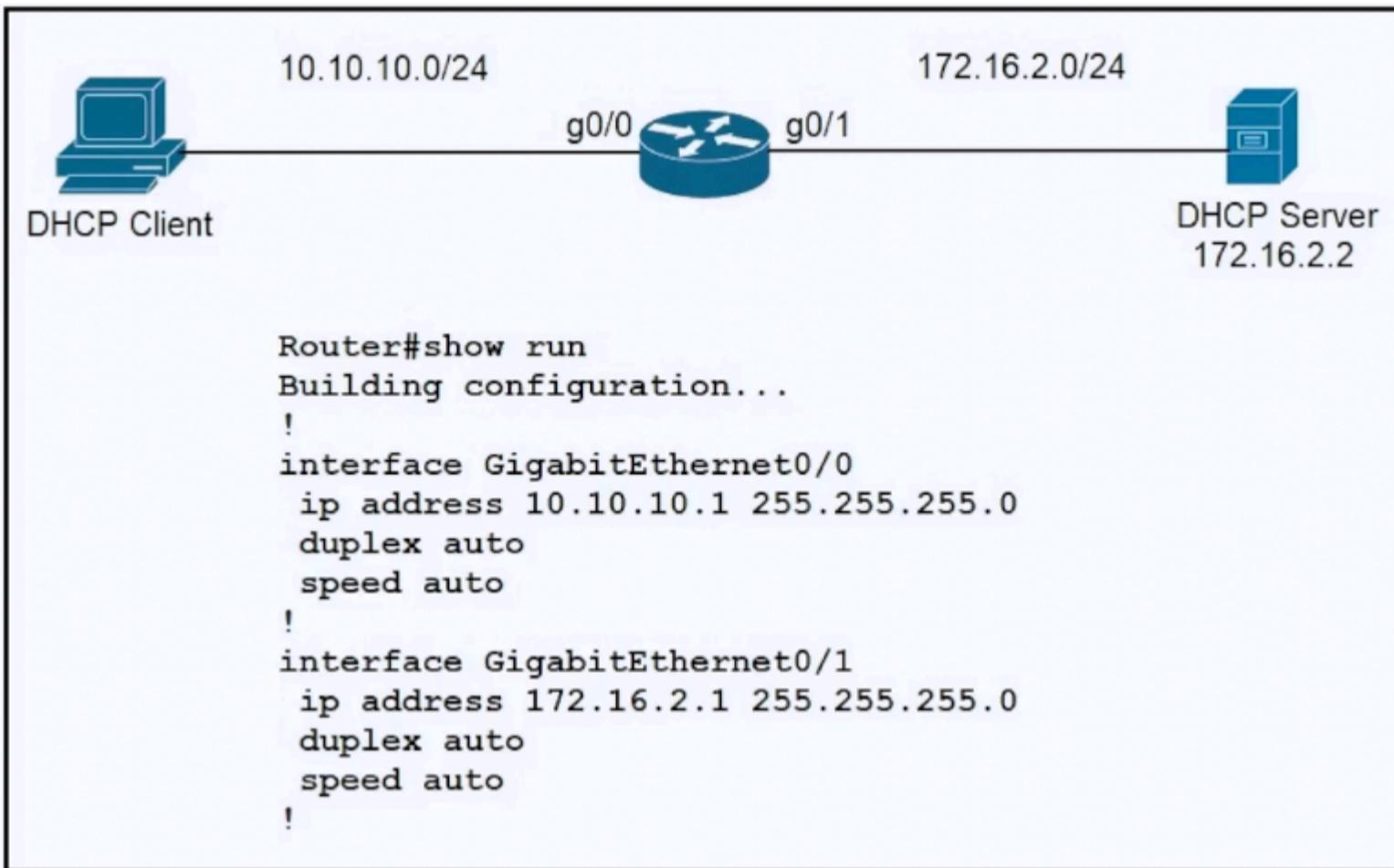


- Expert Verified, Online, **Free**.

Custom View Settings

Question #1133

Topic 1



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

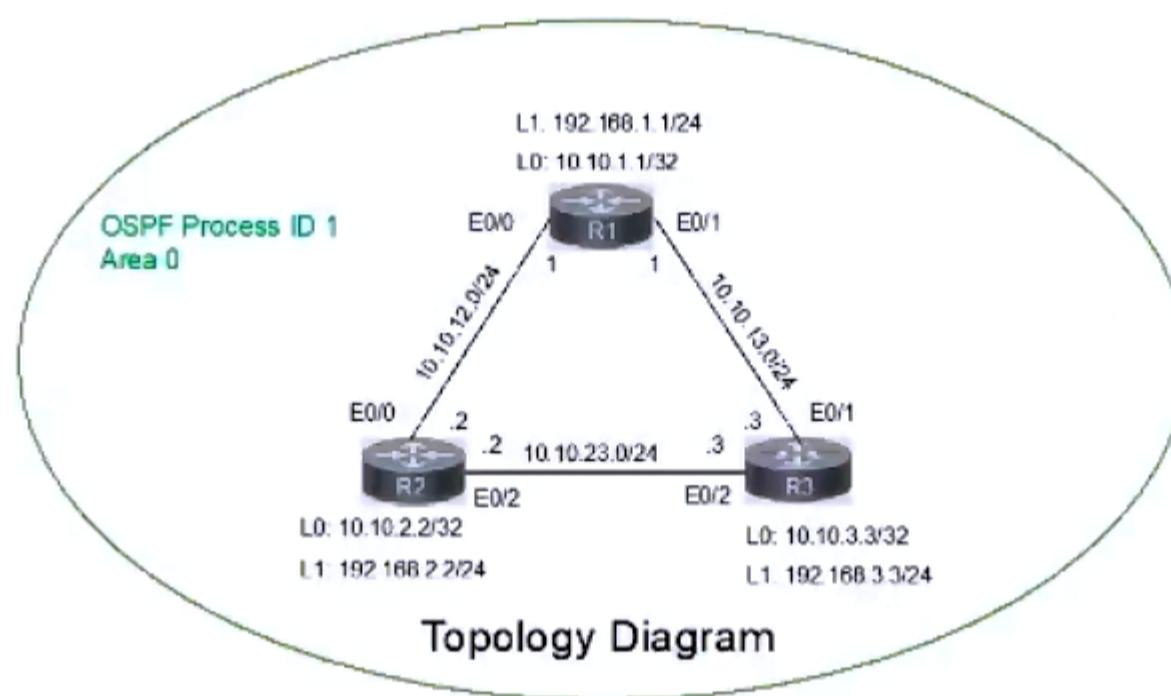
- A. Configure the ip helper-address 172.16.2.2 command under interface Gi0/0.
- B. Configure the ip dhcp relay information command under interface Gi0/1
- C. Configure the ip address dhcp command under interface Gi0/0
- D. Configure the ip dhcp smart-relay command globally on the router.

Question #1134

SIMULATION**Guidelines**

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

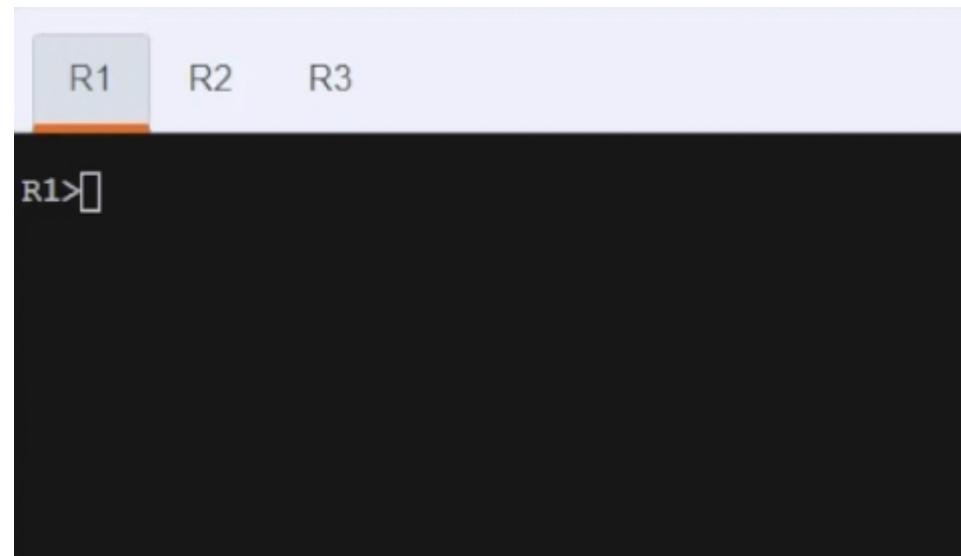
- Refer to the Tasks tab to view the tasks for this lab item.
- Refer to the Topology tab to access the device console(s) and perform the tasks
- Console access is available for all required devices by clicking the device icon or using the tab(s) above the console window
- All necessary preconfigurations have been applied
- Do not change the enable password or hostname for any device
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Topology**Tasks**

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

1. Configure R1 and R2 Router IDs using the interface IP addresses from the link that is shared between them.
2. Configure the R2 links with a max value facing R1 and R3. R2 must become the DR. R1 and R3 links facing R2 must remain with the default OSPF configuration for DR election. Verify the configuration after clearing the OSPF process.
3. Using a host wildcard mask, configure all three routers to advertise their respective Loopback1 networks.

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



Question #1135

Topic 1

DRAG DROP

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

Answer Area

is assigned to more than one interface

cannot be used as a source address

is used exclusively by a non-host device

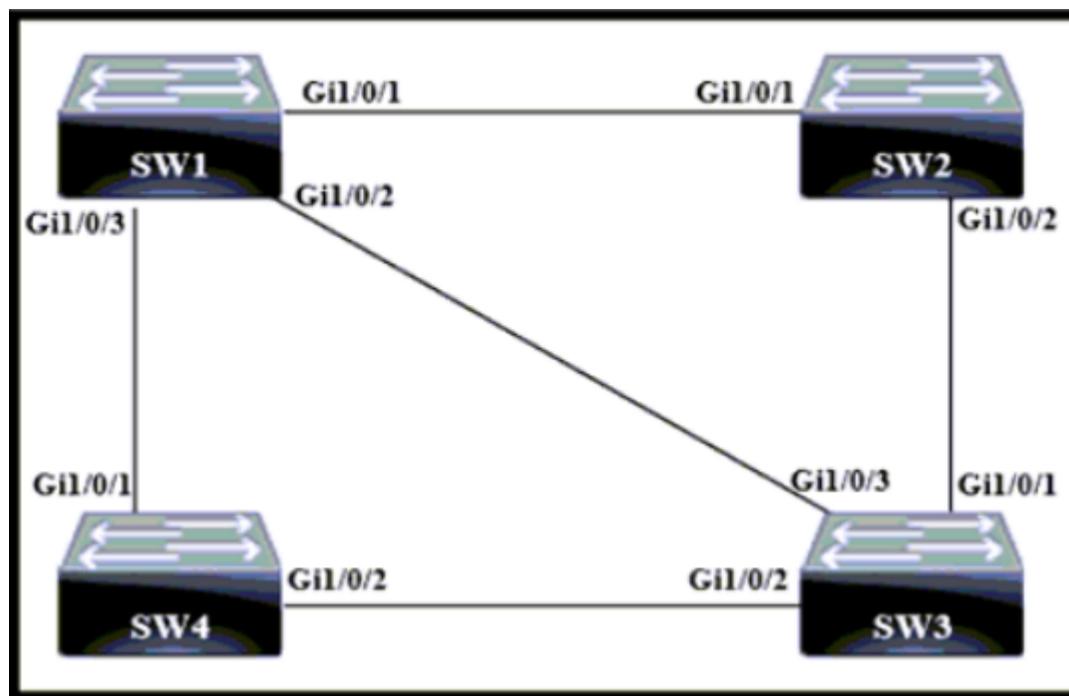
provides one-to-many communications

Anycast

Multicast

Question #1136

Topic 1



Refer to the exhibit. Which switch becomes the root bridge?

A. SW4 -

Bridge Priority - 8192 -

mac-address 05:4a:f7:06:33:22

B. SW2 -

Bridge Priority - 8192 -

mac-address 05:52:bd:0c:be:69

C. SW3 -

Bridge Priority - 61440 -

mac-address 06:15:2e:7f:20:58

D. SW4 -

Bridge Priority - 61440 -

mac-address 0a:e5:03:a6:6e:37

Question #1137

Topic 1

DRAG DROP

- Drag and drop the characteristic from the left onto the cable type on the right.

Answer Area

contains a conductor, bedding, and sheathing

copper

is ideal over longer distances with little loss of integrity

copper

single mode fiber

is typically used in small office applications

uses a single wavelength of light

Question #1138

Topic 1

What is a characteristic of encryption in wireless networks?

- A. provides increased protection against spyware
- B. uses policies to prevent unauthorized users
- C. converts electrical current to radio waves
- D. prevents the interception of data as it transits a network

Question #1139

Topic 1

Which interface is used to send traffic to the destination network?

- D 10.214.247.237.28 [90/2170] via G0/12
- D 10.214.247.237.28 [90/46985] via G0/19
- O 10.214.247.237.28 [110/665] via G0/9
- O 10.214.247.237.28 [110/3399] via G0/1

- A. G0/9
- B. G0/12
- C. G0/19
- D. G0/1

Question #1140

Topic 1

Which IPsec encryption mode is appropriate when the destination of a packet differs from the security termination point?

- A. transport
- B. main
- C. aggressive
- D. tunnel

Question #1141

Topic 1

A network administrator is evaluating network security in the aftermath of an attempted ARP spoofing attack. If Port-channel1 is the uplink interface of the access-layer switch toward the distribution-layer switch, which two configurations must the administrator configure on the access-layer switch to provide adequate protection? (Choose two.)

- A. ip dhcp snooping vlan 1-4094
!
interface Port-channel1
switchport protected
switchport port-security maximum 1
- B. ip dhcp snooping vlan 1-4094
ip dhcp snooping
!
interface Port-channel1
ip dhcp snooping trust
- C. ip dhcp snooping
!
interface Port-channel1
switchport port-security maximum 1
switchport port-security
- D. ip arp inspection trust
!
interface Port-channel1
switchport port-security maximum 4094
switchport port-security
ip verify source mac-check
- E. ip arp inspection vlan 1-4094
!
interface Port-channel1
ip arp inspection trust

Topic 1

Question #1142

Which type of hypervisor operates without an underlying OS to host virtual machines?

- A. Type 1
- B. Type 2
- C. Type 3
- D. Type 12

Question #1143

Topic 1

What is a characteristic of an SSID in wireless networks?

- A. converts electrical current to radio waves
- B. associates a name to a WLAN
- C. uses a 4-way handshake for authentication
- D. provides increased protection against spyware

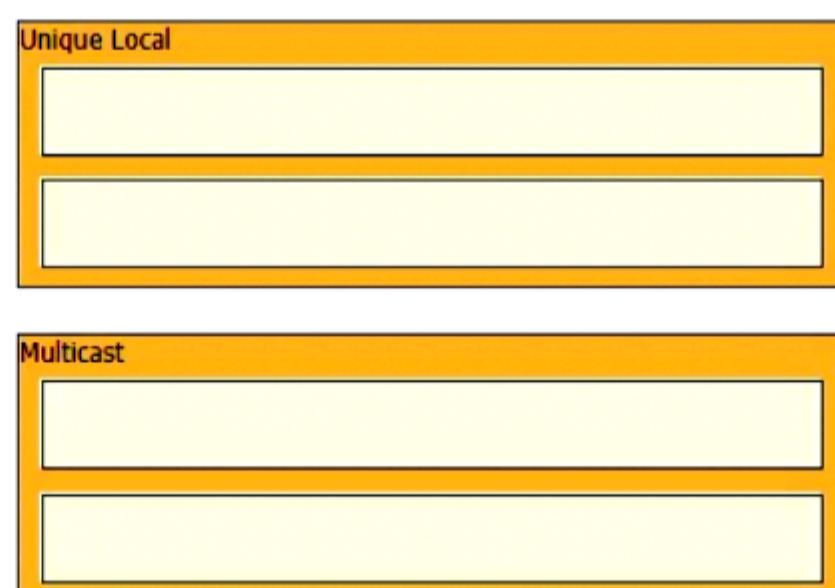
Question #1144

Topic 1

DRAG DROP

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

- has a unicast source sent to a group
- is unable to route on the internet
- allows sites to be combined without address conflicts
- sends packets to a group address rather than a single address



Question #1145

Topic 1

Which interface is used to send traffic to the destination network?

- D 10.148.172.22.27 [90/10259] via G0/24
- D 10.148.172.22.27 [90/47955] via G0/10
- R 10.148.172.22.27 [120/14] via G0/5
- R 10.148.172.22.27 [120/1] via G0/1

- A. G0/10
- B. G0/24
- C. G0/5
- D. G0/1

Question #1146

Topic 1

What is a characteristic of private IPv4 addressing?

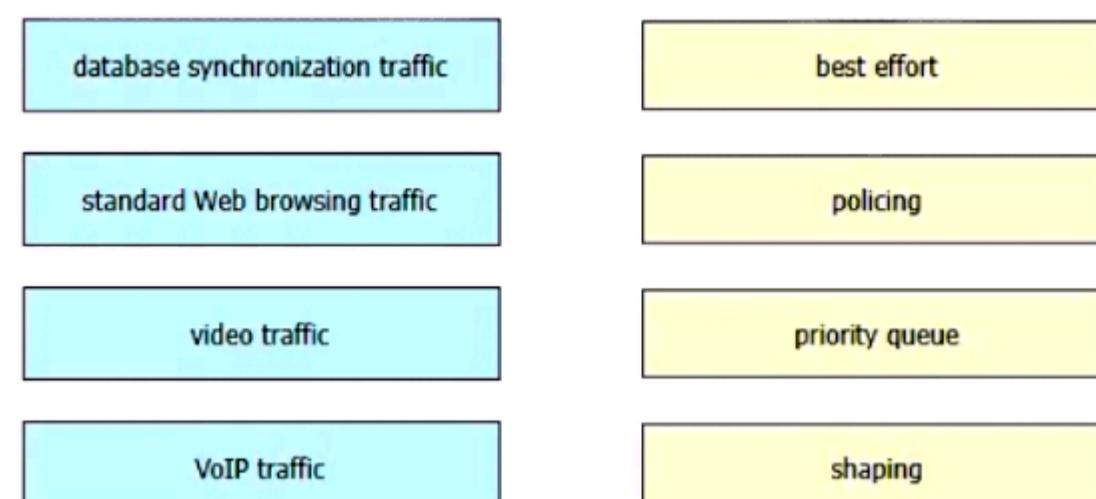
- A. enables secure connectivity over the internet
- B. complies with PCI regulations
- C. provides an added level of protection against internet threats
- D. is used on internal hosts that stream data solely to external resources

Question #1147

Topic 1

DRAG DROP

Drag and drop the traffic types from the left onto the QoS delivery mechanisms on the right.

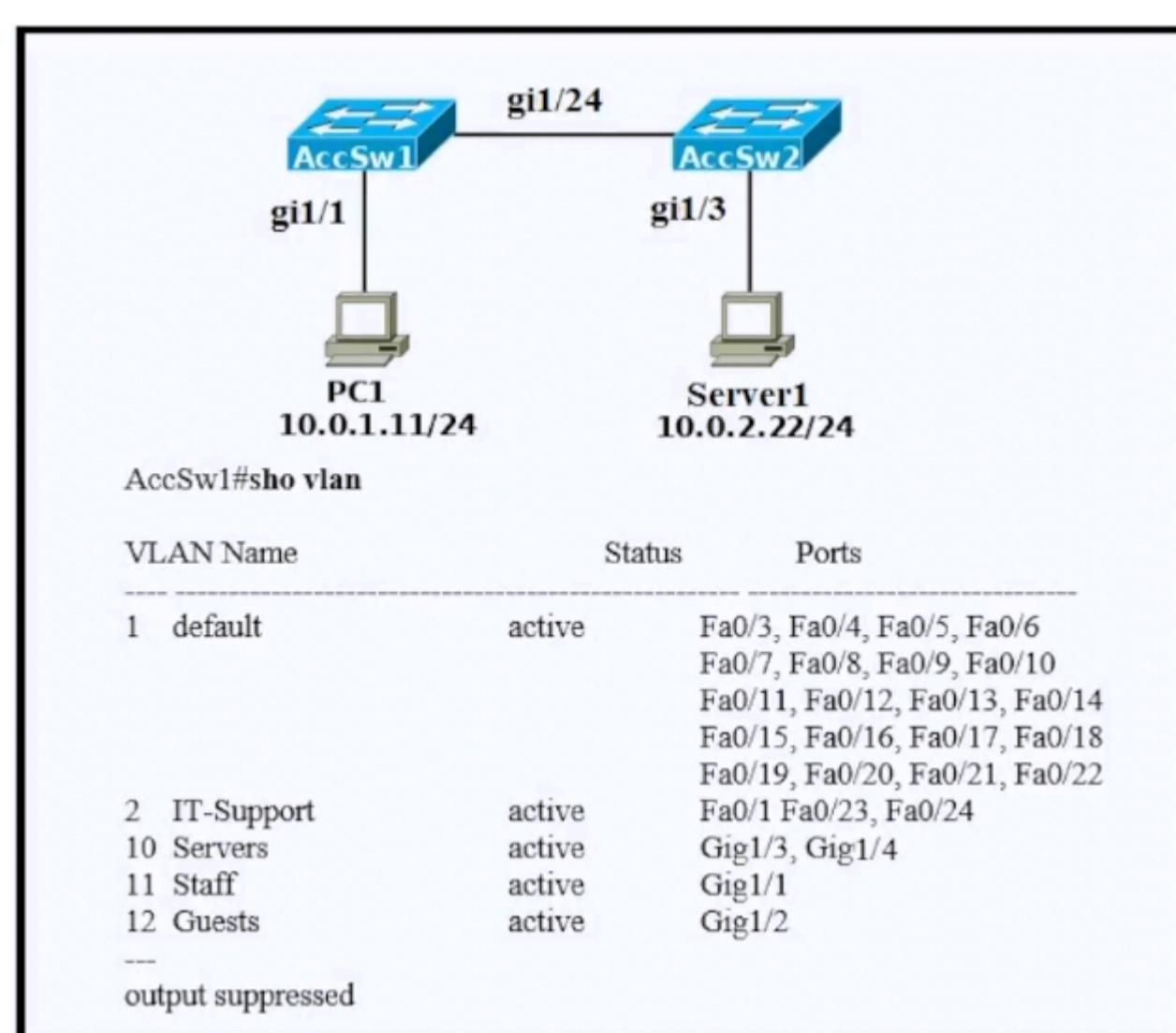
Answer Area

Question #1148

Topic 1

What is a characteristic of private IPv4 addressing?

- A. is used when the ISP requires the new subnet to be advertised to the internet for web services
- B. provides unlimited address ranges
- C. is used when the network has multiple endpoint listeners
- D. is used on hosts that communicate only with other internal hosts



Refer to the exhibit. The engineer configured the VLANs on the new AccSw2 switch. A router-on-a-stick is connected to both switches. How must the ports be configured on AccSw2 to establish full connectivity between the two switches and for Server1?

A. interface GigabitEthernet1/1

```
switchport access vlan 11
```

```
!
```

```
interface GigabitEthernet1/24
```

```
switchport mode trunk
```

```
switchport trunk allowed vlan 10,11
```

B. interface GigabitEthernet1/3

```
switchport mode access
```

```
switchport access vlan 10
```

```
!
```

```
interface GigabitEthernet1/24
```

```
switchport mode trunk
```

```
switchport trunk allowed vlan 2,10
```

C. interface GigabitEthernet1/3

```
switchport mode access
```

```
switchport access vlan 10
```

```
!
```

```
interface GigabitEthernet1/24
```

```
switchport mode trunk
```

D. interface GigabitEthernet1/1

```
switchport mode access
```

```
switchport access vlan 11
```

```
!
```

```
interface GigabitEthernet1/24
```

```
switchport mode trunk
```

Question #1150

Topic 1

How does frame switching function on a switch?

- A. floods unknown destinations to all ports except the receiving port
- B. modifies frames that contain a known source VLAN
- C. rewrites the source and destination MAC address
- D. buffers and forwards frames with less than 5 CRCs

Question #1151

*Topic 1***Wireless LAN adapter Wi-Fi:**

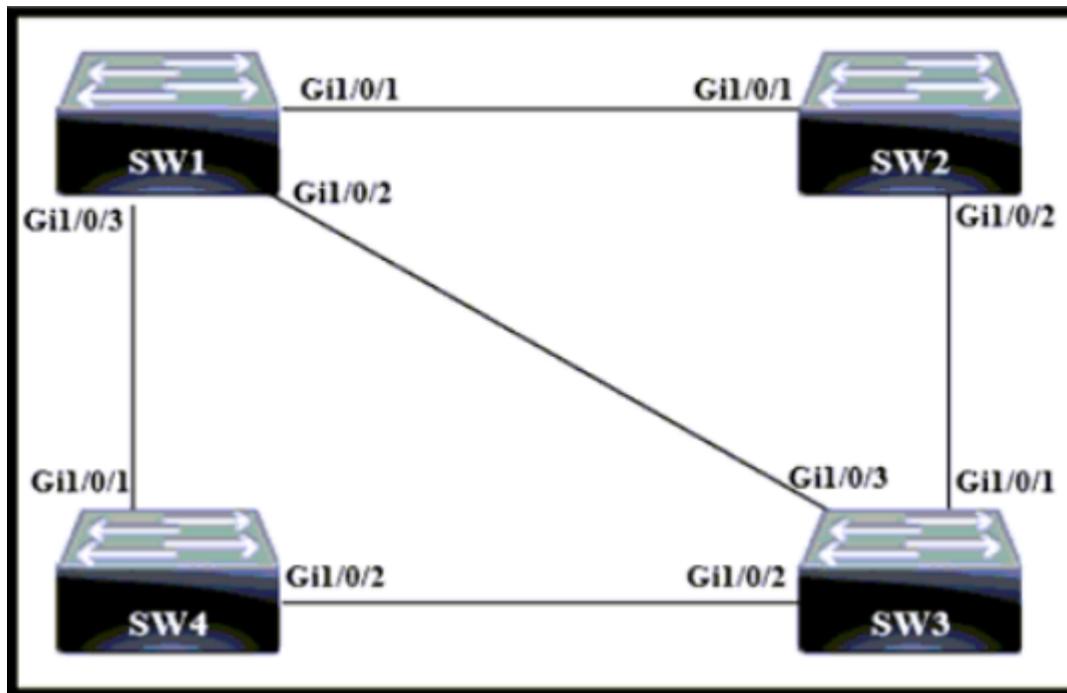
```
Connection-specific DNS Suffix  : 
Description . . . . . : Intel(R) Dual Band Wireless-AC 7265
Physical Address . . . . . : C8-21-58-B4-D3-E0
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . . : Yes
Link-local IPv6 Address . . . . . : fe80::45a1:b3fa:2f37:bf37%2 (Preferred)
IPv4 Address . . . . . : 192.168.25.103 (Preferred)
Subnet Mask . . . . . : 255.255.255.0
Lease Obtained. . . . . : June 11, 2019 10:21:31 AM
Lease Expires . . . . . : June 12, 2019 10:21:36 AM
Default Gateway . . . . . : 192.168.25.1
DHCP Server . . . . . : 192.168.25.100
DHCPv6 IAID . . . . . : 46670168
DHCPv6 Client DUID. . . . . : 00-01-00-01-20-FF-05-55-3C-52-82-33-D3-84
DNS Servers . . . . . : 192.168.25.254
                                         192.168.25.254
```

Refer to the exhibit. Which address will the client contact to renew their IP address when the current lease expires?

- A. 192.168.25.103
- B. 192.168.25.1
- C. 192.168.25.100
- D. 192.168.25.254

Question #1152

Topic 1



Refer to the exhibit. Which switch becomes the root bridge?

A. SW4 -

Bridge Priority - 8192 -

mac-address 05:0f:e8:ed:b2:98

B. SW2 -

Bridge Priority - 8192 -

mac-address 00:ac:f0:9b:dc:72

C. SW3 -

Bridge Priority - 16384 -

mac-address 0e:6c:e4:b1:8a:57

D. SW4 -

Bridge Priority - 16384 -

mac-address 0a:45:22:26:29:77

Question #1153

Topic 1

DRAG DROP

- Drag and drop the characteristic from the left onto the cable type on the right.

Answer Area

contains a conductor, bedding, and sheathing

copper

is typically used for DWDM optical systems spanning long distances

single-mode fiber

is typically used in small office applications

eliminates distortion from overlapping light pulses

Question #1154

Topic 1

How is a configuration change made to a wireless AP in lightweight mode?

- A. SSH connection to the management IP of the AP
- B. CAPWAP/LWAPP connection via the parent WLC
- C. EoIP connection via the parent WLC
- D. HTTPS connection directly to the out-of-band address of the AP

Question #1155

DRAG DROP

Drag and drop the HTTP verbs from the left onto the API operations on the right.

Answer Area

DELETE	creates a subordinate resource under the specified URI
GET	erases a specific resource
PATCH	fully replaces the current version of a specific resource with new content from the payload
POST	partially modifies a specific resource
PUT	requests specific information about a resource

Question #1156

Which plane is centralized in software-defined networking?

- A. application
- B. services
- C. data
- D. control

Question #1157

What is a service that is provided by a wireless controller?

- A. It mitigates threats from the internet.
- B. It manages interference in a dense network.
- C. It provides Layer 3 routing between wired and wireless devices.
- D. It issues IP addresses to wired devices.

Question #1158

Topic 1

When more than one AP-Manager interface is provisioned on a wireless LAN controller, how is the request handled by the AP?

- A. The discovery response from the AP to the AP-Manager interface disables the WLAN port.
- B. The AP join request fails and must be configured statically on the AP-Manager interface.
- C. The AP-Manager with the fewest number of APs is used by the AP to join.
- D. The first AP-Manager interface to respond is chosen by the AP.

Question #1159

Topic 1

What is represented in line 2 within this JSON schema?

```
1 [
2 {"load balancer": "LB48", "port": "e0/27"},  
3 {"firewall": "FW49", "port": "ge2/37"},  
4 {"router": "R_paris", "port": "te6/6"},  
5 ]
```

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

Question #1160

Topic 1

How does MAC learning function on a switch?

- A. protects against denial of service attacks
- B. sends frames with unknown destinations to a multicast group
- C. adds unknown source MAC addresses to the address table
- D. sends a retransmission request when a new frame is received

Question #1161

Topic 1

What is represented by the word "ge3/36" within this JSON schema?

```
1 [
2 {"VPN concentrator": "VPN36", "interface": "ge3/36"},  
3 {"load balancer": "LB33", "interface": "te7/10"},  
4 {"switch": "SW31", "interface": "fe2/25"},  
5 ]
```

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

Question #1162

Topic 1

Which SNMP message type is reliable and precedes an acknowledgment response from the SNMP manager?

- A. Get
- B. Inform
- C. Traps
- D. Set

Question #1163

Topic 1

What is a characteristic of private IPv4 addressing?

- A. provides unlimited address ranges
- B. is used when the network has multiple endpoint listeners
- C. reduces network complexity
- D. alleviates the shortage of IPv4 addresses

Question #1164

Which interface condition is occurring in this output?

```
R19# show interface fa0/0
FastEthernet0/0 is up, line protocol is up
Hardware is DEC21140, address is ca02.7788.0000 (bia ca02.7788.0000)
Description: brussels_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, 100 Mb/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: 0
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
7331 packets input, 7101162 bytes
Received 3553 broadcasts (0 IP multicasts)
0 runts, 0 giants, 0 throttles
0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
0 watchdog
0 input packets with dribble condition detected
3927 packets output, 1440403 bytes, 0 underruns
0 output errors, 0 collisions, 0 interface resets
0 unknown protocol drops
0 babbles, 0 late collision, 0 deferred
0 lost carrier, 0 no carrier
0 output buffer failures, 0 output buffers swapped out
```

- A. collisions
- B. bad NIC
- C. duplex mismatch
- D. broadcast storm

Question #1165

DRAG DROP

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

is easy to tap into and obtain secure information

transmits data of up to 40Gbit/s over long distances

is affected by electrical and magnetic interference

has minimal light reflection as it travels down the core

copper

single-mode fiber

Question #1166

How does frame switching function on a switch?

- A. floods unknown destinations to all ports except the receiving port
- B. buffers and forwards frames with less than 5 CRCs
- C. forwards frames to a neighbor port using CDP
- D. sends frames with unknown destinations to a multicast group

Question #1167

Which interface is used to send traffic to the destination network?

- D 10.232.106.30.27 [90/6580] via F0/9
- D 10.232.106.30.27 [90/46095] via F0/16
- O 10.232.106.30.27 [110/3158] via F0/7
- O 10.232.106.30.27 [110/7367] via F0/24

- A. F0/9
- B. F0/16
- C. F0/7
- D. F0/24

Question #1168

Topic 1

What is a characteristic of encryption in wireless networks?

- A. intercepts data threats before they attack a network
- B. uses policies to prevent unauthorized users
- C. must include a combination of letters and numbers
- D. encodes and decodes data for authorized users

Question #1169

Topic 1

What is represented by the word "firewall" within this JSON schema?

```
1 [  
2 {"router": "R_pittsburgh", "port": "e0/36"},  
3 {"firewall": "FW37", "port": "te23"},  
4 {"switch": "SW_toronto", "port": "ge5/28"},  
5 ]
```

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

Question #1170

Topic 1

DRAG DROP

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

allows sites to be combined without address conflicts

Unique Local

sends packets to a group address rather than a single address

is unable to route on the internet

Multicast

provides one-to-many communications

Question #1171

Topic 1

DRAG DROP

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

fe80:ae46:d315:41c8:4593:12dc:9827:7

Global Unicast

2000:6166:6ba9:cde4:d89e:4c4a:bdc8:1

Link-Local Unicast

ff00:a8bb:b2a1:7490:4ef0:f603:109b:12

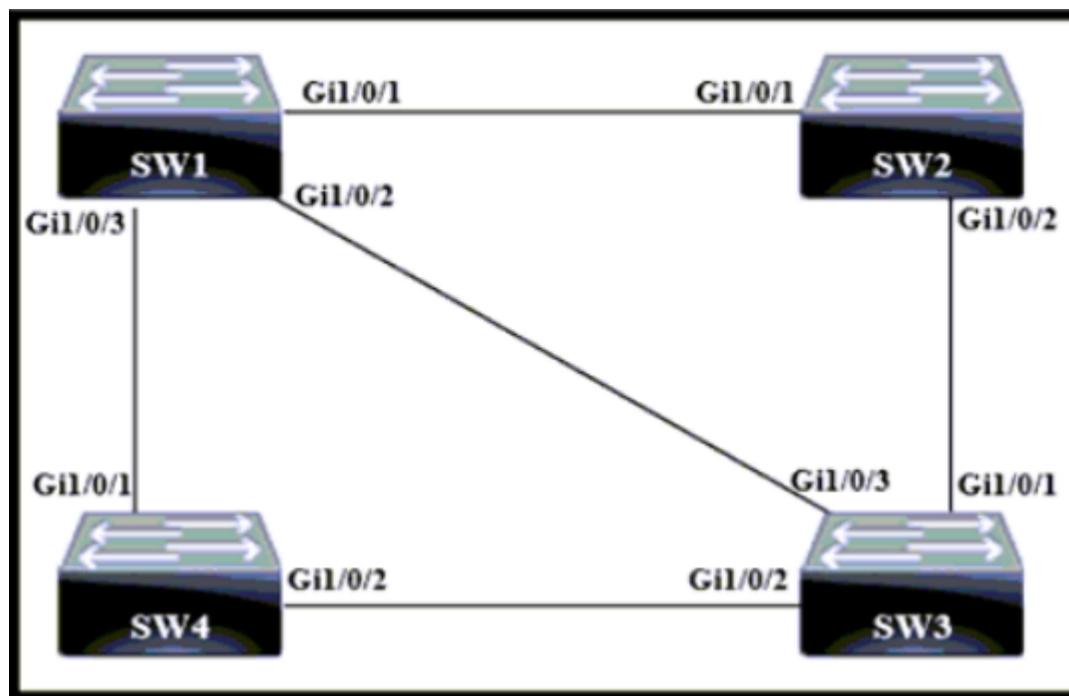
Multicast

fc00:382e:29e1:f7e2:1573:ff4f:04f9:3

Unique Local

Question #1172

Topic 1



Refer to the exhibit. Which switch becomes the root bridge?

A. SW 3 -

Bridge Priority - 45056 -

mac-address 02:f8:c4:07:b7:69

B. SW 2 -

Bridge Priority - 49152 -

mac-address 0d:d6 43:23:ac:87

C. SW 4 -

Bridge Priority - 49152 -

mac-address 03:be 04:5e:64:58

D. SW 1 -

Bridge Priority - 45056 -

mac-address 09:e6:35:f4:38:29

Question #1173

Topic 1

What is a reason why a company would choose to use network automation in an enterprise?

- A. Provide data services faster.
- B. Enable network segmentation.
- C. Mitigate spanning-tree loop avoidance.
- D. Implement granular QoS.

Question #1174

Topic 1

```
router# show ip route
....  
D 172.16.32.0/26 [90/25789217] via 10.0.0.1  
R 172.16.32.0/24 [120/4] via 10.0.0.2  
O 172.16.32.0/19 [110/229840] via 10.0.0.3  
C 172.16.32.32/32 is directly connected, Loopback0  
C 172.16.32.4/30 is directly connected, GigabitEthernet0/0
```

Refer to the exhibit. A packet sourced from 172.16.32.254 is destined for 172.16.32.8. What is the subnet mask of the preferred destination route?

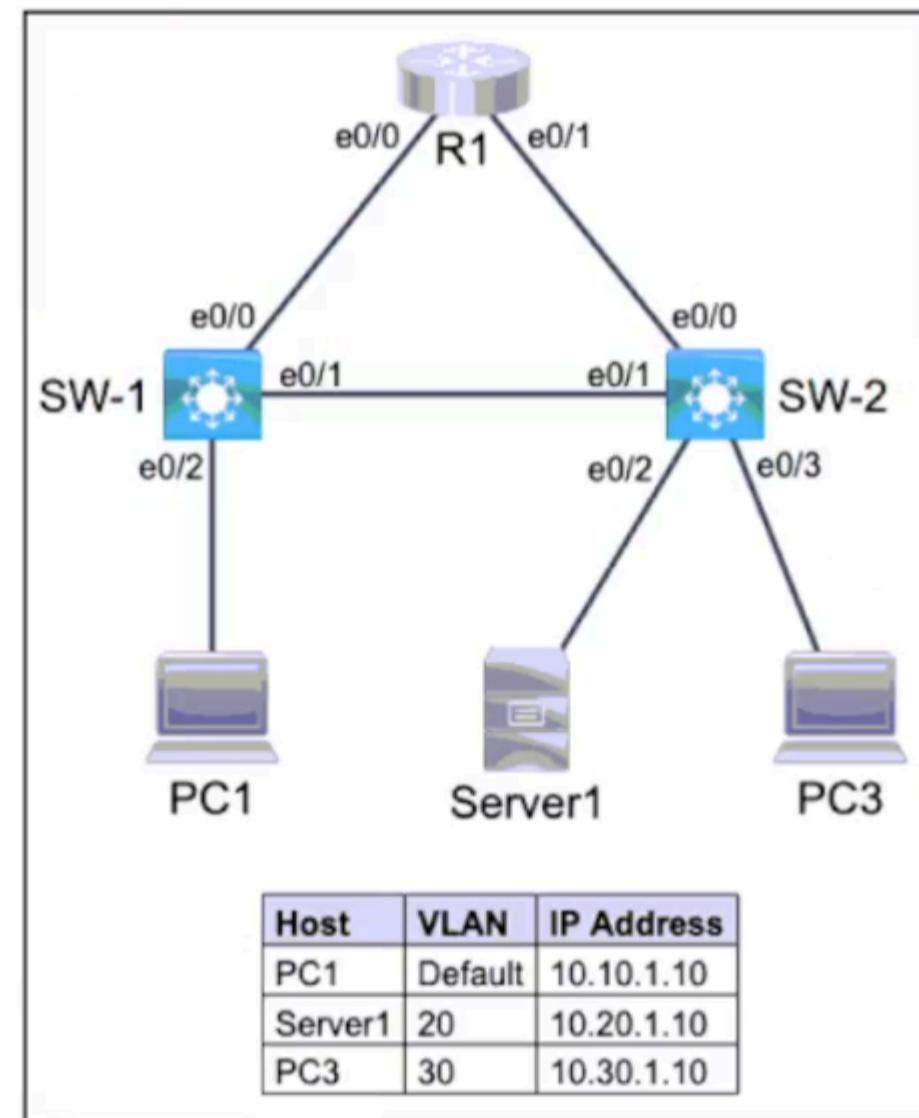
- A. 255.255.224.0
- B. 255.255.255.0
- C. 255.255.255.192
- D. 255.255.255.252

Question #1175

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Topology**Tasks**

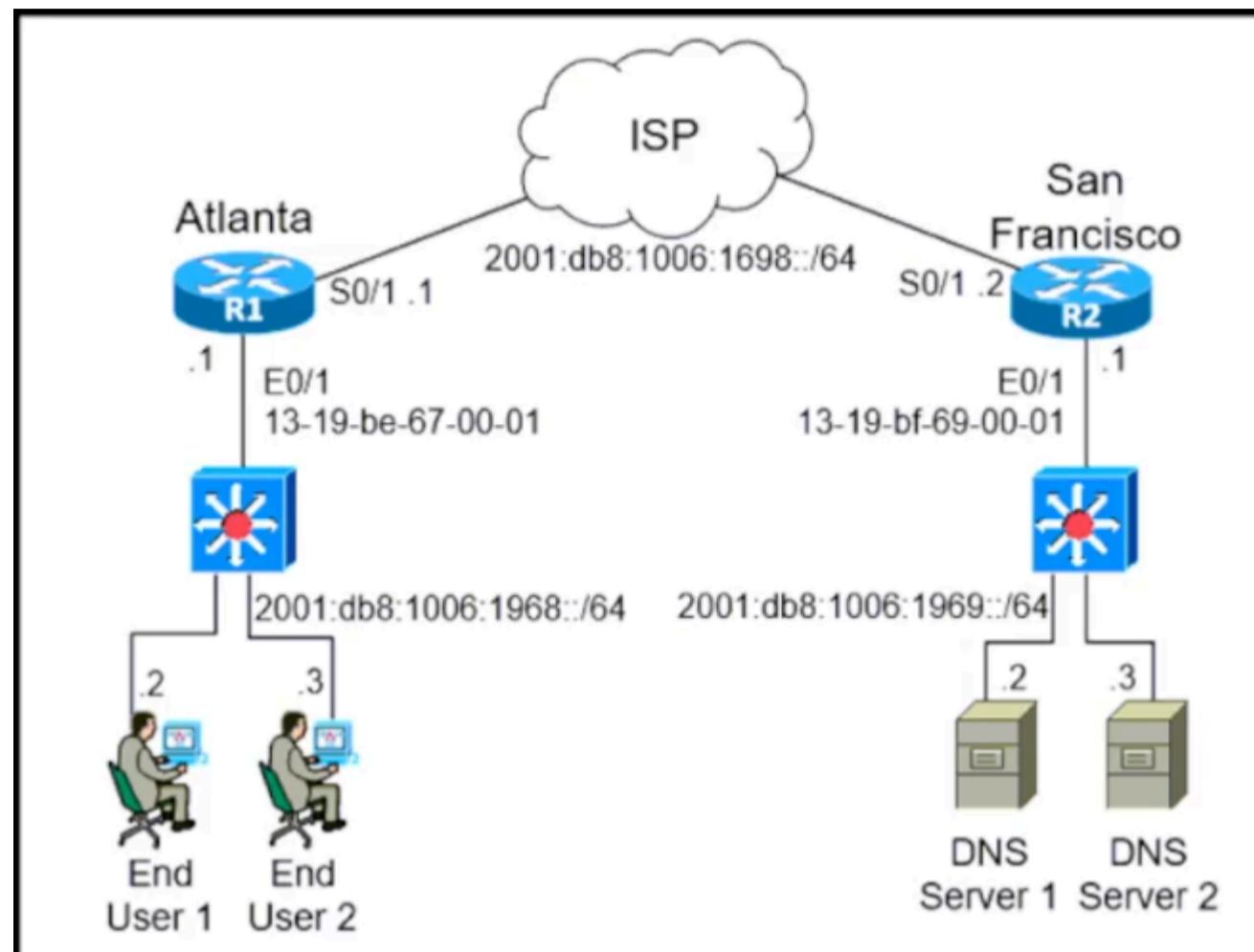
R1 has been pre-configured with all the necessary commands. All physical cabling is in place and verified. Connectivity from PC1, PC3, and the Server must be established to the switches, and each port must only allow one VLAN.

1. Configure the VLAN connecting to the switch port for PC3 with the name "SALES"
2. Configure the switch port connecting to Server1

3. Configure the switch port connecting to PC3
4. Ensure R1 discovers SW-1 via the Cisco proprietary neighbor discovery protocol and all other devices on the network are unable to discover SW-1

Question #1176

Topic 1



Refer to the exhibit. The IPv6 address for the LAN segment on router R1 must be configured using the EUI-64 format. When configured which IPv6 address is produced by the router?

- A. 2001:db8:1006:1968:4564:877F:FE99:1
- B. 2001:db8:1006:1968:1119:BEFF:FE67:1
- C. 2001:db8:1006:1968:1130:ABFF:FECC:1
- D. 2001:db8:1006:1968:12D8:BAFE:FF01:1

Question #1177

Topic 1

```
Router# show interface FastEthernet0/0
FastEthernet0/0 is up, line protocol is up
  Hardware is Gt96k FE, address is 0017.59b2.7fb2 (bia 0017.59b2.7fb2)
  Internet address is 10.0.0.2/30
  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 (10 sec)
  Half-duplex, 100Mb/s, 100BaseTX/FX
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:04, output 00:00:04, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 1
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 516000 bits/sec, 45 packets/sec
  5 minute output rate 516000 bits/sec, 46 packets/sec
    13282 packets input, 20075670 bytes
    Received 25 broadcasts, 0 runts, 0 giants, 0 throttles
    383 input errors, 383 CRC, 0 frame, 0 overrun, 0 ignored
    0 watchdog
    0 input packets with dribble condition detected
    13438 packets output, 20084258 bytes, 0 underruns
    0 output errors, 831 collisions, 5 interface resets
    11 unknown protocol drops
    0 babbles, 0 late collision, 0 deferred
    0 lost carrier, 0 no carrier
    0 output buffer failures, 0 output buffers swapped out
```

Refer to the exhibit. Users at a branch office are experiencing application performance issues, poor VoIP audio quality, and slow downloads. What is the cause of the issues?

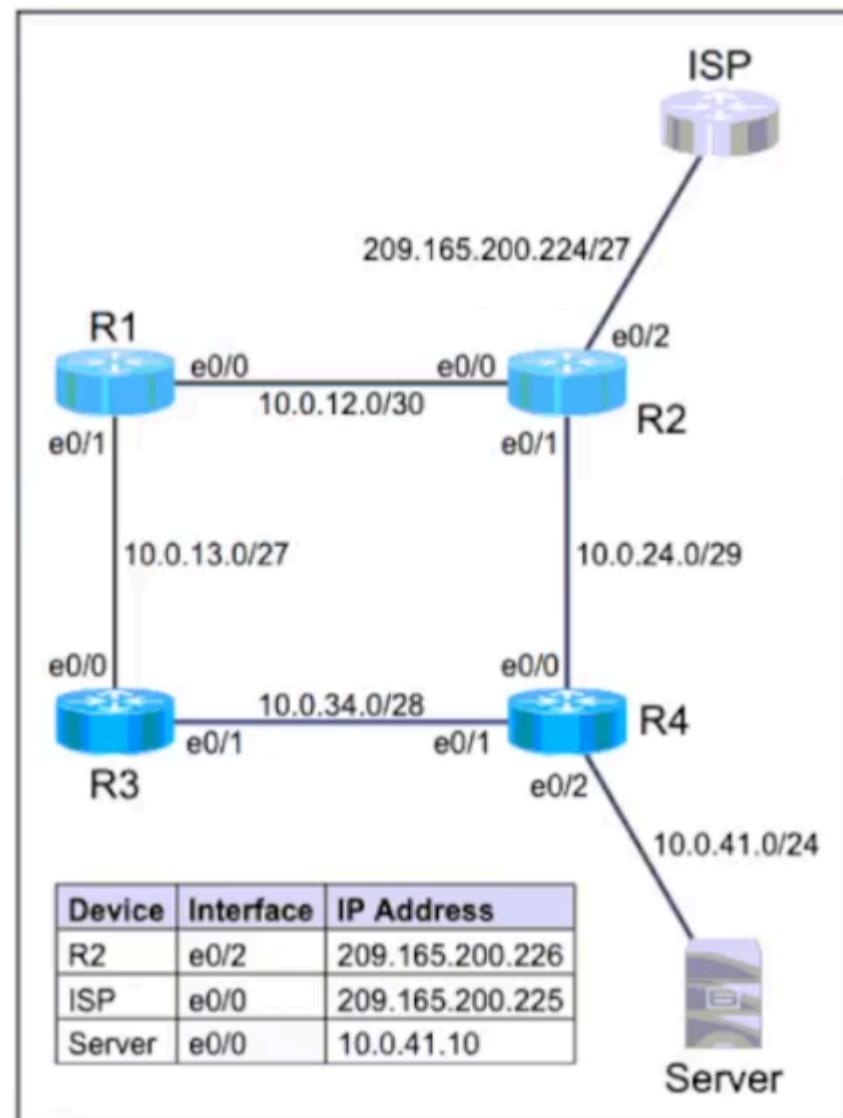
- A. QoS queuing
- B. interface configuration
- C. broadcast storm
- D. overutilization

Question #1178

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Topology**Tasks**

All physical cabling is in place. Routers R3 and R4 are fully configured and inaccessible. Configure static routes for various connectivity to the ISP and the LAN that resides on R4.

1. Configure a route on R1 to ensure that R1 prefers R2 when traffic is destined to the server only.

2. Configure a default route on R2 to the ISP
3. Configure a route on R1 to ensure that R1 will use R2 for the R4 LAN if the link fails between R3 and R4
4. Configure a route on R1 to ensure that R1 prefers R3 when traffic is destined to the R4 LAN at 10.0.41.0/24

Question #1179

Topic 1

An engineer needs to configure an access point to forward all client traffic through a wireless controller. Which mode must be enabled to accomplish this task?

- A. local
- B. monitor
- C. autonomous
- D. rogue detector

Question #1180

Topic 1

An Ethernet frame arrived at switch interface G0/1, but the destination MAC address is missing from the MAC address table. How does the switch process the frame?

- A. It sends an ARP request to attempt to locate the destination
- B. It updates the destination to FFFF.FFFF.FFFF.
- C. It drops the frame and notifies the sending host.
- D. It floods the frame out of the remaining switch interfaces.

Question #1181

Topic 1

In which circumstance would a network architect decide to implement a global unicast subnet instead of a unique local unicast subnet?

- A. when the subnet must be available only within an organization
- B. when the subnet does not need to be routable
- C. when the addresses on the subnet must be equivalent to private IPv4 addresses
- D. when the subnet must be routable over the internet

Question #1182

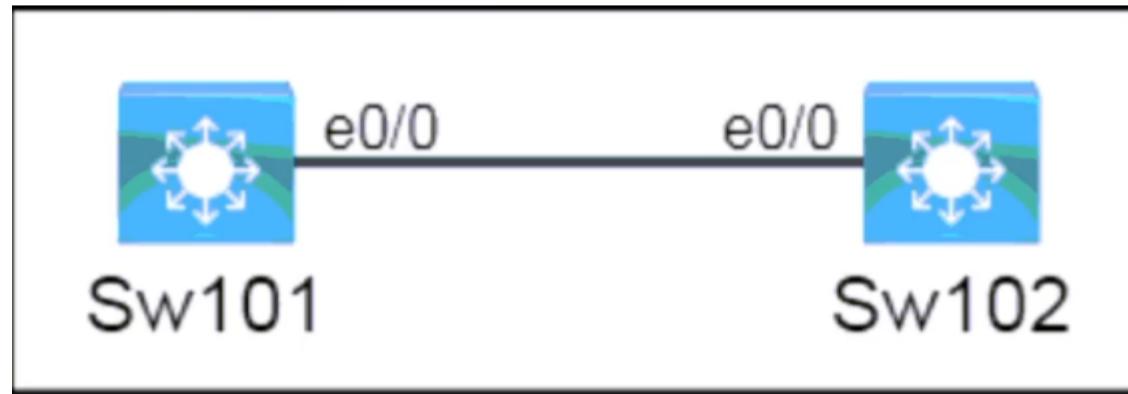
SIMULATION

Guidelines

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

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Topology



Tasks

All physical cabling is in place. A company plans to deploy 16 new sites. The sites will utilize both IPv4 and IPv6 networks.

1. Subnet 172.16.0.0/16 to meet the subnet requirements and maximize the number of hosts
 - Using the second subnet
 - Assign the first usable IP address to e0/0 on Sw101
 - Assign the last usable IP address to e0/0 on Sw102
2. Subnet 2001:DB8::/50 to meet the subnet requirements and maximize the number of hosts
 - Using the second subnet
 - Assign an IPv6 GUA using a unique 64-Bit interface identifier on e0/0 on Sw101
 - Assign an IPv6 GUA using a unique 64-Bit interface identifier on e0/0 on Sw102

Question #1183

Topic 1

How does MAC learning function on a switch?

- A. associates the MAC address with the port on which it is received
- B. rewrites the source and destination MAC address
- C. broadcasts frames to all ports without queueing
- D. sends an ARP request to locate unknown destinations

Question #1184

Topic 1

Which interface is used to send traffic to the destination network?

- D **10.245.54.69.29 [90/9388] via G0/16**
- D **10.245.54.69.29 [90/50147] via G0/21**
- R **10.245.54.69.29 [120/15] via G0/5**
- R **10.245.54.69.29 [120/13] via G0/4**

- A. G0/21
- B. G0/4
- C. G0/5
- D. G0/16

Question #1185

Topic 1

What is a characteristic of an SSID in wireless networks?

- A. must include a combination of letters and numbers
- B. uses policies to prevent unauthorized users
- C. prompts a user for a login ID
- D. associates a name to a WLAN

Question #1186

Topic 1

DRAG DROP

- Drag and drop the characteristic from the left onto the cable type on the right.

is typically used in small office applications

transmits data of up to 40Gbit/s over long distances

is not easily broken

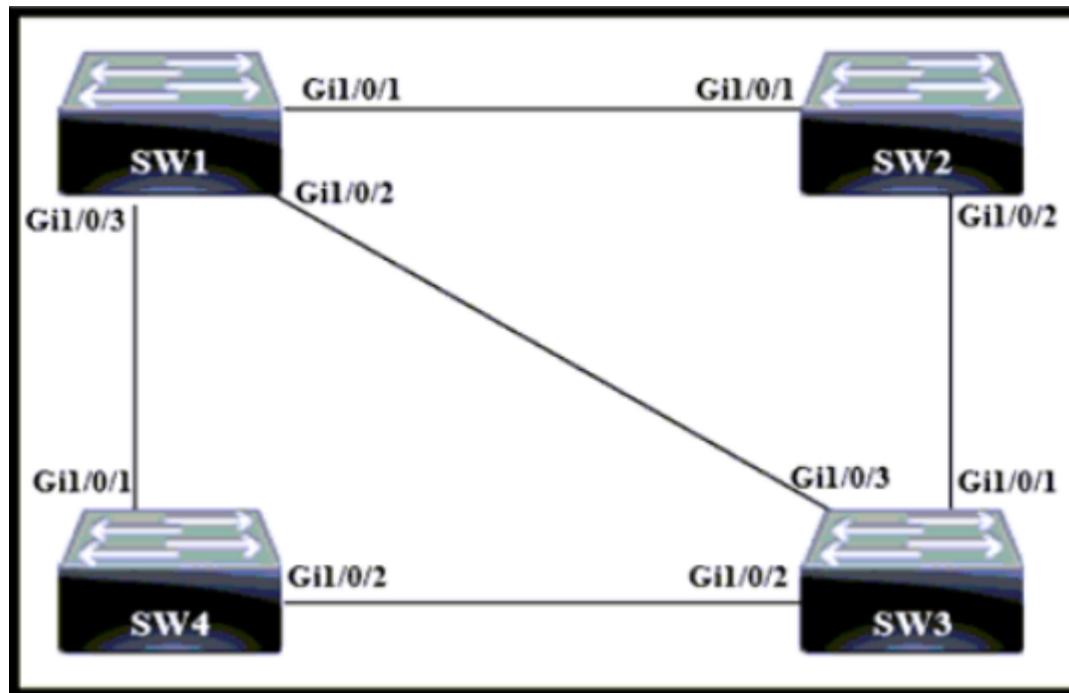
eliminates distortion from overlapping light pulses

copper

single-mode fiber

Question #1187

Topic 1



Refer to the exhibit. Which switch becomes the root bridge?

A. SW 4 -

Bridge Priority - 49152 -
mac-address 06:8e:bc:7e:5b:85

B. SW 3 -

Bridge Priority - 49152 -
mac-address 0d:e4:96:da:ee:95

C. SW 1 -

Bridge Priority - 36864 -
mac-address 05:a7:23:5b:52:25

D. SW 2 -

Bridge Priority - 36864 -
mac-address 04:1e:c4:bf:02:55

Question #1188

DRAG DROP

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

fe80:5db2:1f32:0ee4:32a3:855f:b0d5:7

Global Unicast

2000:4011:2a0d:d571:1976:4bab:adb7:1

Link-Local Unicast

ff00:b823:1dc6:263b:ba6a:50f5:15b7:12

Multicast

fc00:e896:c4cd:422b:7660:59e5:dd00:3

Unique Local

Question #1189

Topic 1

Which interface condition is occurring in this output?

```
R36# show interface fa0/0
FastEthernet0/0 is up, line protocol is up
Hardware is DEC21140, address is ca02.7788.0000 (bia ca02.7788.0000)
Description: sanfrancisco_subnet
Internet address is 10.32.102.2/30
MTU 1500 bytes, BW 100000 Kbit/sec, DLY 100 usec,
reliability 255/255, txload 255/255, rxload 255/255
Encapsulation ARPA, loopback not set
Keepalive set (60 sec)
Full-duplex, 100 Mb/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: 0
Queueing strategy: fifo
Output queue: 0/300 (size/max)
30 second input rate 217244011 bits/sec, 0 packets/sec
30 second output rate 236536306 bits/sec, 0 packets/sec
7331 packets input, 7101162 bytes
Received 267 broadcasts (0 IP multicasts)
0 runts, 0 giants, 0 throttles
0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
0 watchdog
0 input packets with dribble condition detected
3927 packets output, 1440403 bytes, 0 underruns
0 output errors, 0 collisions, 0 interface resets
0 unknown protocol drops
0 babbles, 0 late collision, 0 deferred
0 lost carrier, 0 no carrier
0 output buffer failures, 0 output buffers swapped out
```

- A. duplex mismatch
- B. high throughput
- C. bad NIC
- D. broadcast storm

Question #1190

DRAG DROP

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

may be used by multiple organizations at the same time

cannot be used as a source address

allows sites to be combined without address conflicts

has a unicast source sent to a group

Unique Local

Multicast

Question #1191

Topic 1

What is a characteristic of private IPv4 addressing?

- A. used when traffic on a subnet must traverse a site-to-site VPN to an outside organization
- B. supplies redundancy in the case of failure
- C. alleviates the shortage of IPv4 addresses
- D. reduces the forwarding table on network routers

Question #1192

Topic 1

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

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

Question #1193

Topic 1

What is the operating mode and role of a backup port on a shared LAN segment in Rapid PVST+?

- A. learning mode and provides the shortest path toward the root bridge handling traffic away from the LAN
- B. blocking mode and provides an alternate path toward the designated bridge
- C. forwarding mode and provides the lowest-cost path to the root bridge for each VLAN
- D. listening mode and provides an alternate path toward the root bridge

Question #1194

Topic 1

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

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

Question #1195

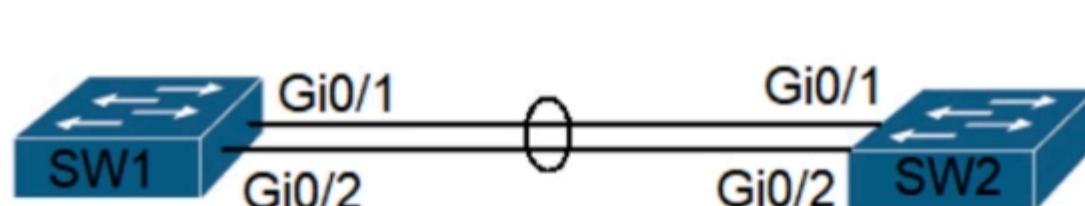
Topic 1

What is the role of SNMP in the network?

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

Question #1196

Topic 1



```
Switch1#show run
Building configuration...
!
interface GigabitEthernet0/1
    channel-group 2 mode passive
!
interface GigabitEthernet0/2
    channel-group 2 mode passive
```

Refer to the exhibit. Which configuration enables SW2 to establish an LACP EtherChannel?

- A. SW2(config)#interface gigabitEthernet0/1
SW2(config-if)#channel-group 1 mode active
SW2(config-if)#interface gigabitEthernet0/2
SW2(config-if)#channel-group 1 mode active
- B. SW2(config)#interface gigabitEthernet0/1
SW2(config-if)#channel-group 2 mode desirable
SW2(config-if)#interface gigabitEthernet0/2
SW2(config-if)#channel-group 2 mode desirable
- C. SW2(config)#interface gigabitEthernet0/1
SW2(config-if)#channel-group 1 mode on
SW2(config-if)#interface gigabitEthernet0/2
SW2(config-if)#channel-group 1 mode on
- D. SW2(config)#interface gigabitEthernet0/1
SW2(config-if)#channel-group 2 mode auto
SW2(config-if)#interface gigabitEthernet0/2
SW2(config-if)#channel-group 2 mode auto

Question #1197

Topic 1

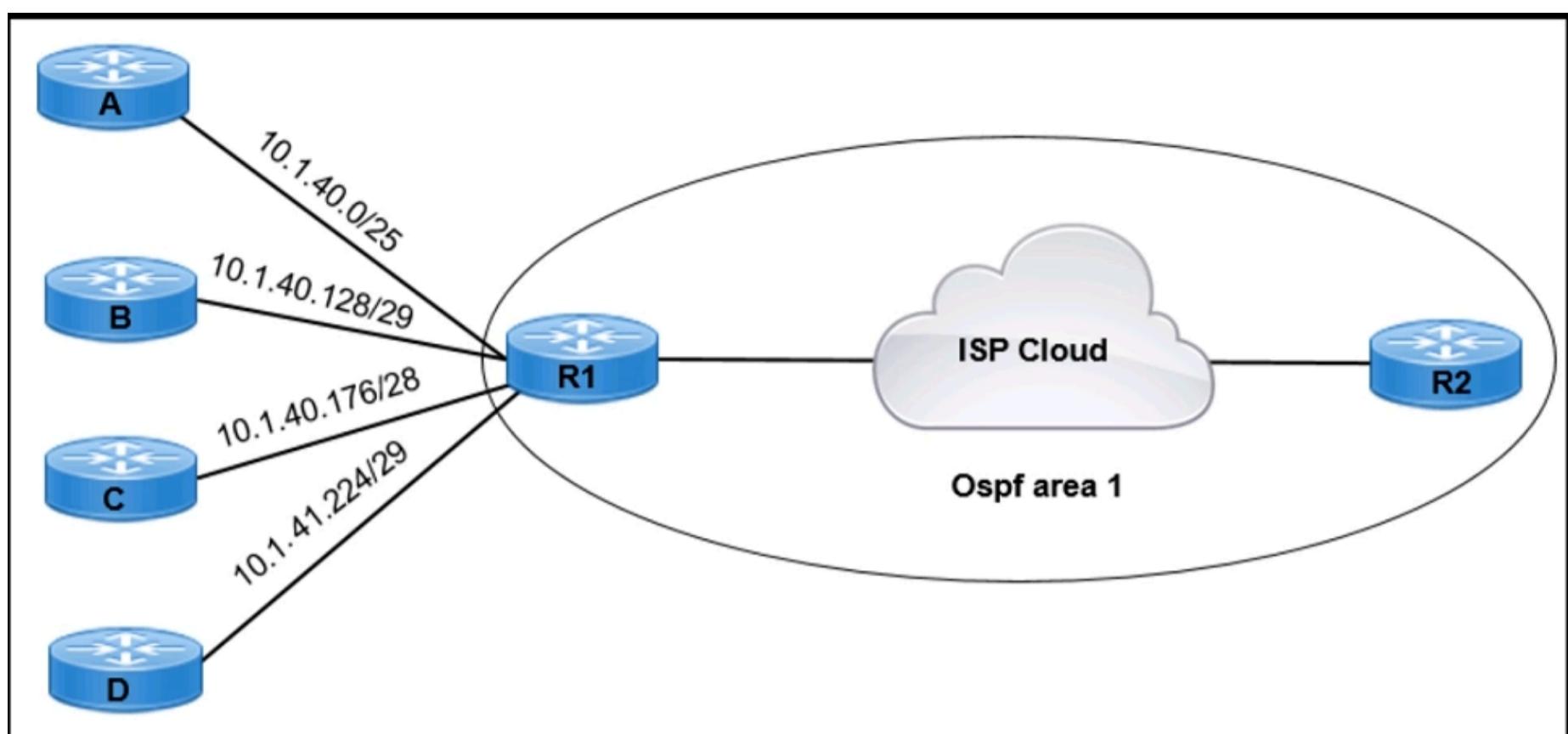
Output from R1

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

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

Refer to the exhibit. What is the issue with the interface GigabitEthernet0/0/1?

- A. port security
- B. cable disconnect
- C. high throughput
- D. duplex mismatch



Refer to the exhibit. Router R1 receives static routing updates from routers A, B, C, and D. The network engineer wants R1 to advertise static routes in OSPF area 1. Which summary address must be advertised in OSPF?

- A. 10.1.41.0/25
- B. 10.1.40.0/24
- C. 10.1.40.0/25
- D. 10.1.40.0/23

Question #1199

Topic 1

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

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

Question #1200

Topic 1

Which type of IPv4 address must be assigned to a server to protect it from external access and allow only internal users access while restricting internet access?

- A. private
- B. public
- C. global unicast
- D. multicast

Question #1201

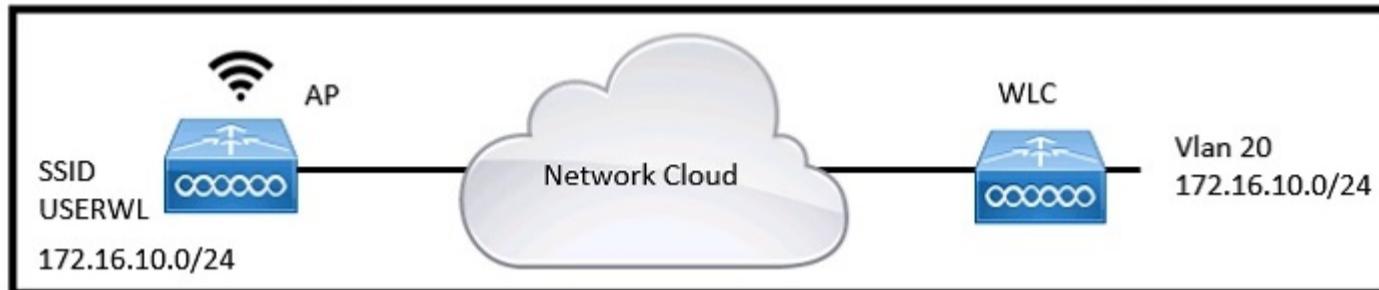
Topic 1

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

- A. FlexConnect allows a personal SSID to be configured on the AP, and personal SSIDs are not supported with OfficeExtend.
- B. OfficeExtend does not support DTLS tunneling of traffic to the WLC, and FlexConnect tunnels traffic to the WLC with DTLS.
- C. FlexConnect must be deployed behind a router that NATs the client traffic, and OfficeExtend uses public IP sources.
- D. OfficeExtend mode requires indoor APs with internal antennas, and indoor and outdoor APs use FlexConnect mode.

Question #1202

Topic 1



Refer to the exhibit. A network engineer is configuring a WLAN to connect with the 172.16.10.0/24 network on VLAN 20. The engineer wants to limit the number of devices that connect to the WLAN on the USERWL SSID to 125. Which configuration must the engineer perform on the WLC?

- A. In the Controller IPv6 configuration, set the Throttle value to 125.
- B. In the WLAN configuration, set the Maximum Allowed Clients value to 125.
- C. In the Management Software activation configuration, set the Clients value to 125.
- D. In the Advanced configuration, set the DTIM value to 125.

Question #1203

Topic 1

```

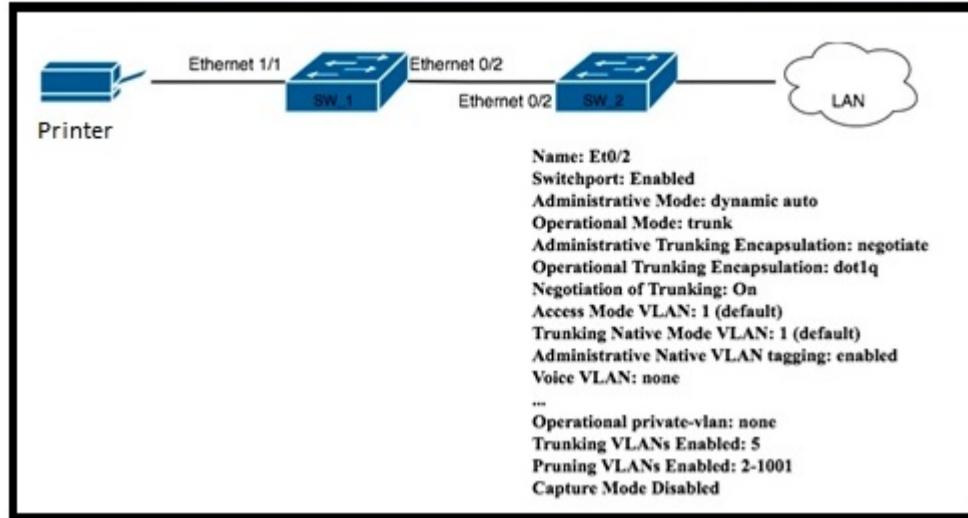
SW1
configure terminal
interface range GigabitEthernet 0/1-2
  switchport mode trunk
  channel-group 1 mode active

SW2
configure terminal
interface range GigabitEthernet 0/1-2
  switchport mode trunk
interface Port-channel1
  switchport mode trunk
  
```

Refer to the exhibit. An LACP EtherChannel between two directly connected switches is in the configuration process. Which command must be configured on switch SW2's Gi0/1-2 interfaces to establish the channel to SW1?

- A. channel-group 1 mode on
- B. channel-group 1 mode desirable
- C. channel-group 1 mode active
- D. channel-group 1 mode auto

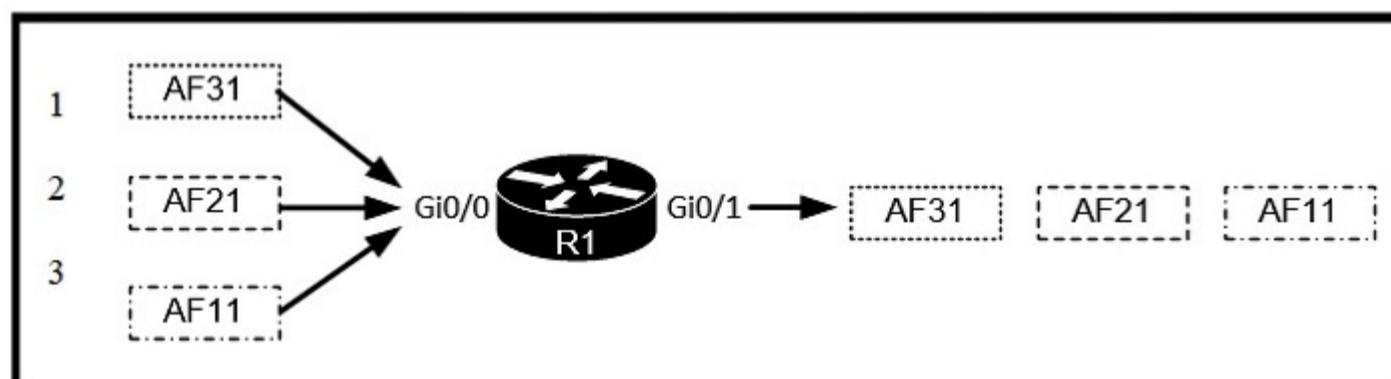
Question #1204



Refer to the exhibit. An administrator must connect SW_1 and the printer to the network. SW_2 requires DTP to be used for the connection to SW_1. The printer is configured as an access port with VLAN 5. Which set of commands completes the connectivity?

- A. switchport mode dynamic auto
switchport private-vlan association host 5
- B. switchport mode trunk
switchport trunk pruning vlan add 5
- C. switchport mode dynamic desirable
switchport trunk allowed vlan add 5
- D. switchport mode dynamic auto
switchport trunk encapsulation negotiate

Question #1205



Refer to the exhibit. Which per-hop QoS behavior is R1 applying to incoming packets?

- A. marking
- B. shaping
- C. queuing
- D. policing

Question #1206

Topic 1

What is the role of the root port in a switched network?

- A. It replaces the designated port when the designated port fails.
- B. It replaces the designated port when the root port fails.
- C. It is the best path to the root from a nonroot switch.
- D. It is administratively disabled until a failover occurs.

Question #1207

Topic 1

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

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

Question #1208

Topic 1

What is used to identify spurious DHCP servers?

- A. DHCPACK
- B. DHCPREQUEST
- C. DHCPOFFER
- D. DHCPDISCOVER

Question #1209

Topic 1

Gateway of last resort is 172.16.2.2 to network 0.0.0.0

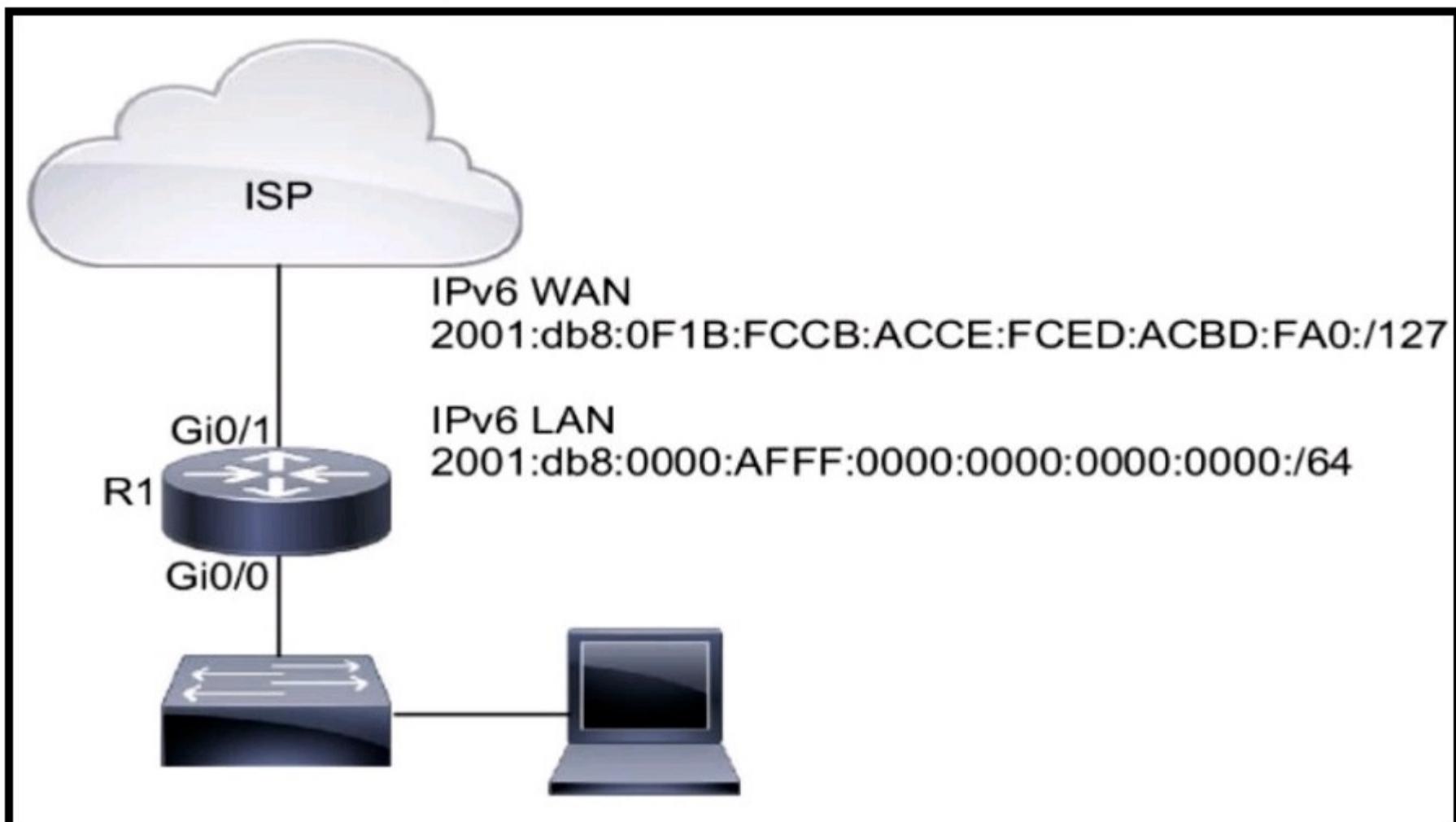
10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C 10.10.10.0/24 is directly connected, GigabitEthernet0/0/0
L 10.10.10.3/32 is directly connected, GigabitEthernet0/0/0
172.16.0.0/16 is variably subnetted, 3 subnets, 2 masks
S 172.16.1.33/32 is directly connected, GigabitEthernet0/0/1
C 172.16.2.0/23 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

Refer to the exhibit. A packet sourced from 10.10.10.1 is destined for 172.16.3.254. What is the subnet mask of the destination route?

- A. 0.0.0.0
- B. 255.255.254.0
- C. 255.255.255.0
- D. 255.255.255.255

Question #1210

Topic 1



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

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

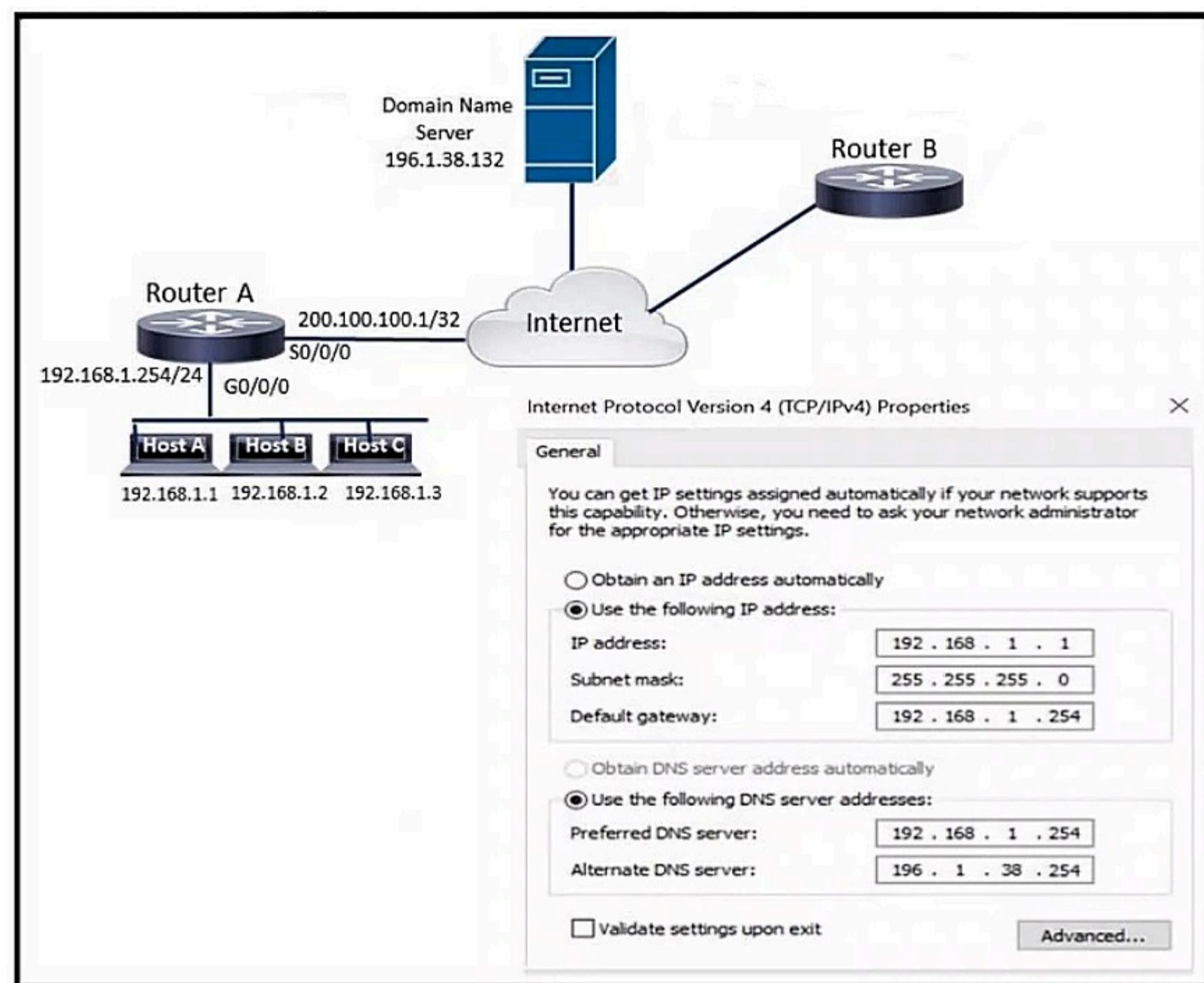
Question #1211

Topic 1

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

Refer to the exhibit. What does the host do when using the IPv4 Preferred function?

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



Refer to the exhibit. What is preventing host A from reaching the internet?

- A. LAN and WAN network segments are different.
- B. The domain name server is unreachable.
- C. The default gateway should be the first usable IP address.
- D. IP address assignment is incorrect.

Question #1213

Topic 1

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

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

Question #1214

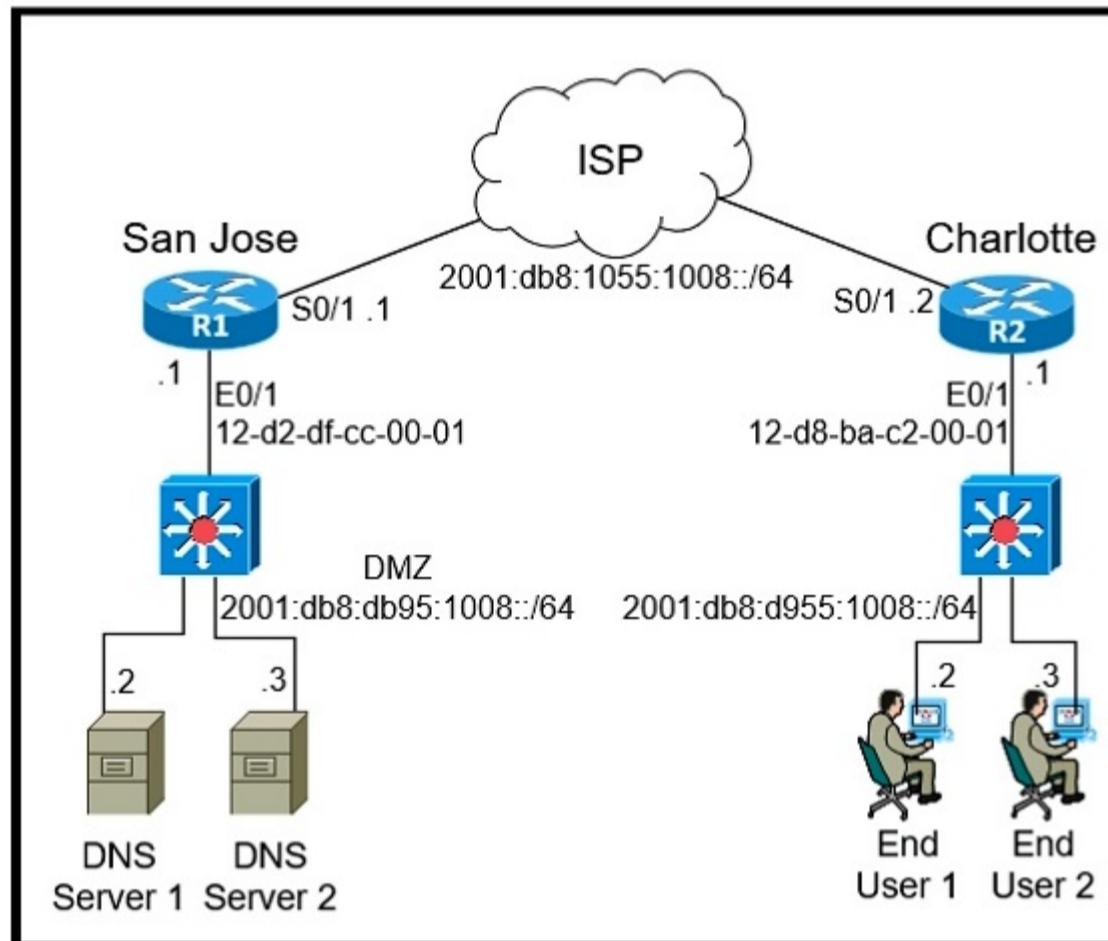
Topic 1

Which AP mode is used for capturing wireless traffic and forwarding that traffic to a PC that is running a packet analyzer?

- A. bridge
- B. monitor
- C. rogue detector
- D. sniffer

Question #1215

Topic 1



Refer to the exhibit. The IPv6 address for the LAN segment on router R2 must be configured using the EUI-64 format. When configured which ipv6 address is produced by the router?

- A. 2001:db8:d955:1008:12D8:BAFE:FF01:1
- B. 2001:db8:d955:1008:4598:785F:FE25:1
- C. 2001:db8:d955:1008:1030:ABFF:FECC:1
- D. 2001:db8:d955:1008:10D8:BAFF:FEC2:1

Question #1216

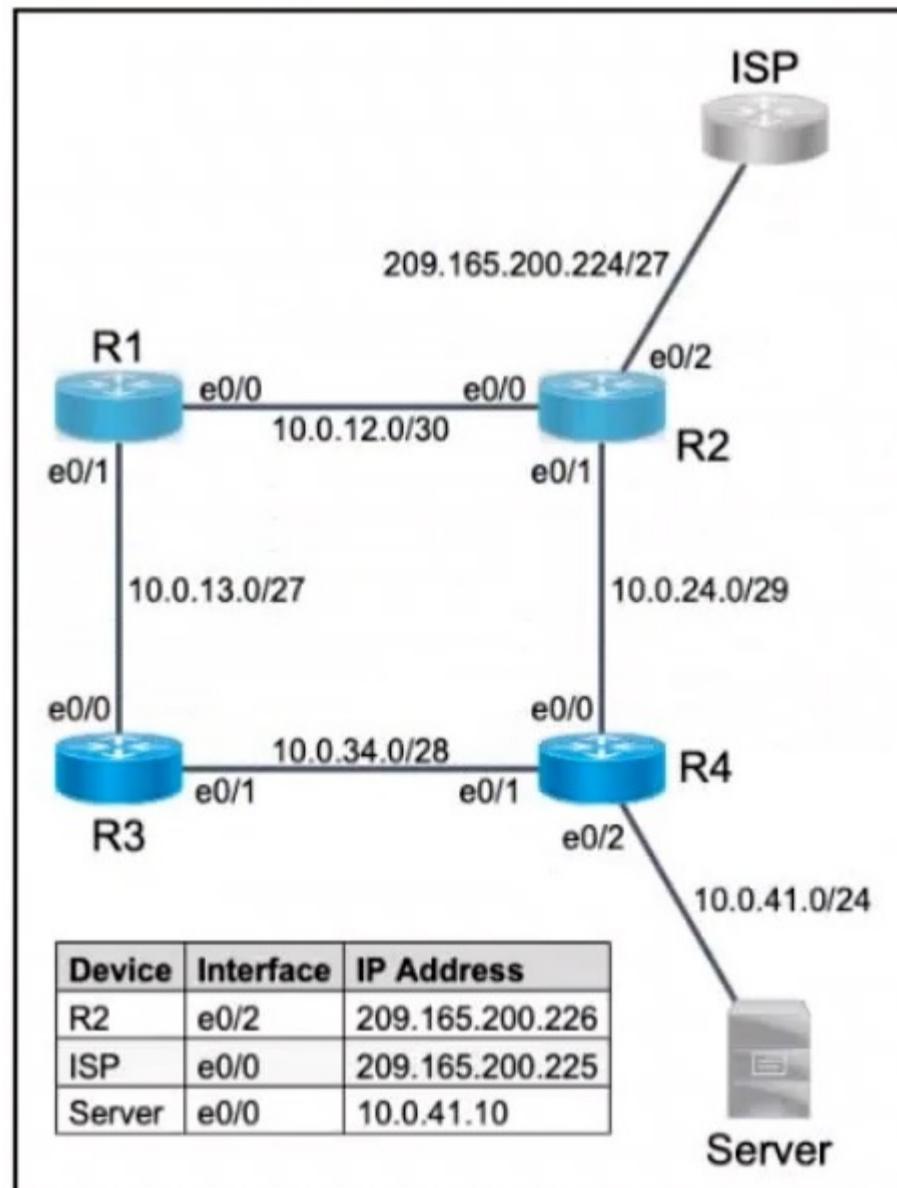
SIMULATION

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- 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.

Topology



Tasks

Refer to the topology. All physical cabling is in place. Routers R3 and R4 are fully configured and inaccessible. Configure static routes for various connectivity to the ISP and the LAN, which resides on R4.

1. Configure a default route on R2 to the ISP

2. Configure a default route on R1 to the ISP
3. Configure R2 with a route to the Server at 10.0.41.10
4. Configure R1 with a route to the LAN that prefers R3 as the primary path to the LAN

Question #1217

Topic 1

Which components are contained within a virtual machine?

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

Question #1218

Topic 1

Which interface IP address serves as the tunnel source for CAPWAP packets from the WLC to an AP?

- A. service
- B. trunk
- C. AP-manager
- D. virtual AP connection

Question #1219

Topic 1

What does a switch search for in the CAM table when forwarding a frame?

- A. source MAC address and aging time
- B. destination MAC address and flush time
- C. source MAC address and source port
- D. destination MAC address and destination port

Question #1220

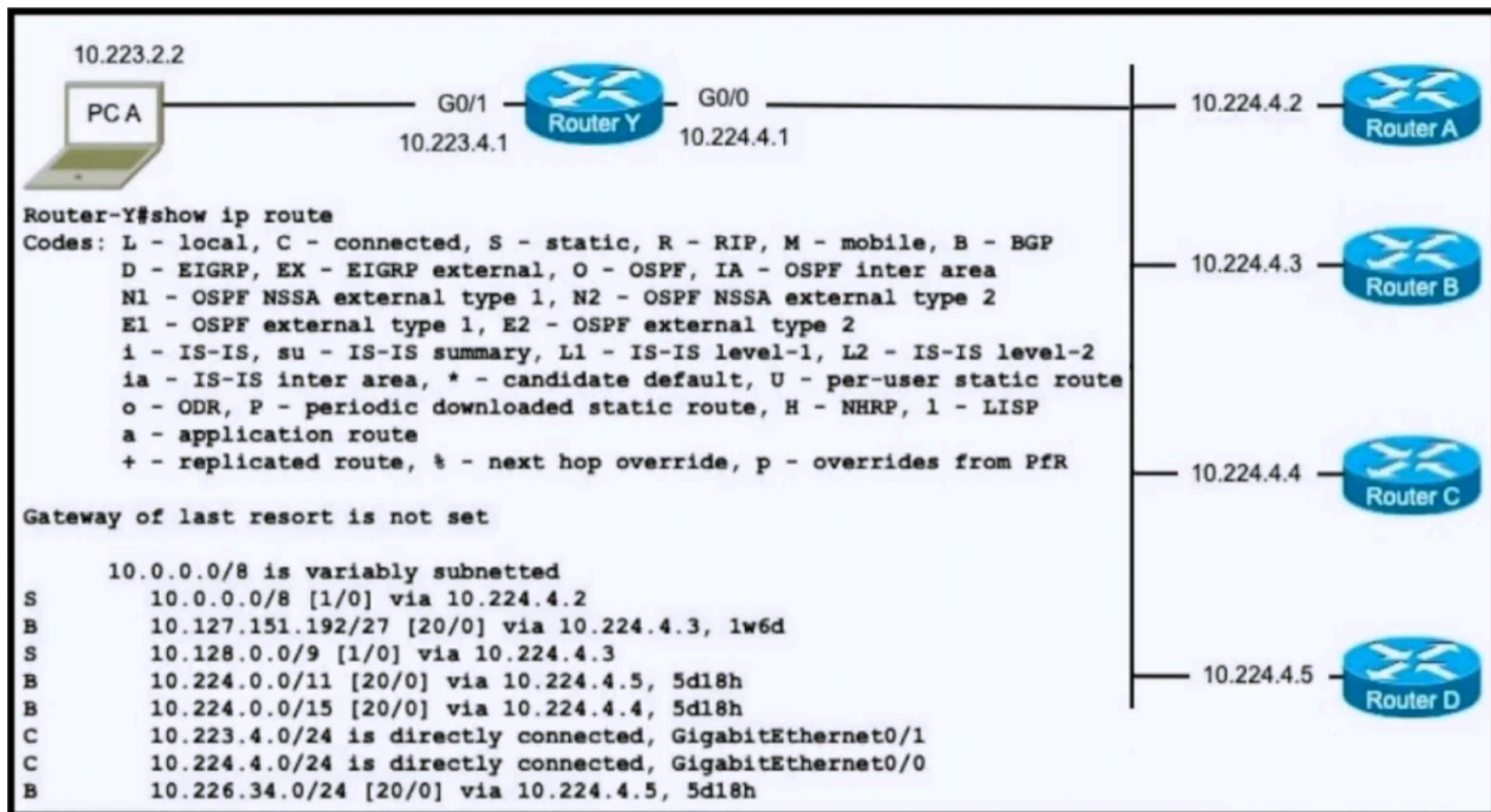
Topic 1

Which port type does a lightweight AP use to connect to the wired network when configured in FlexConnect mode with local switching and VLAN tagging?

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

Question #1221

Topic 1

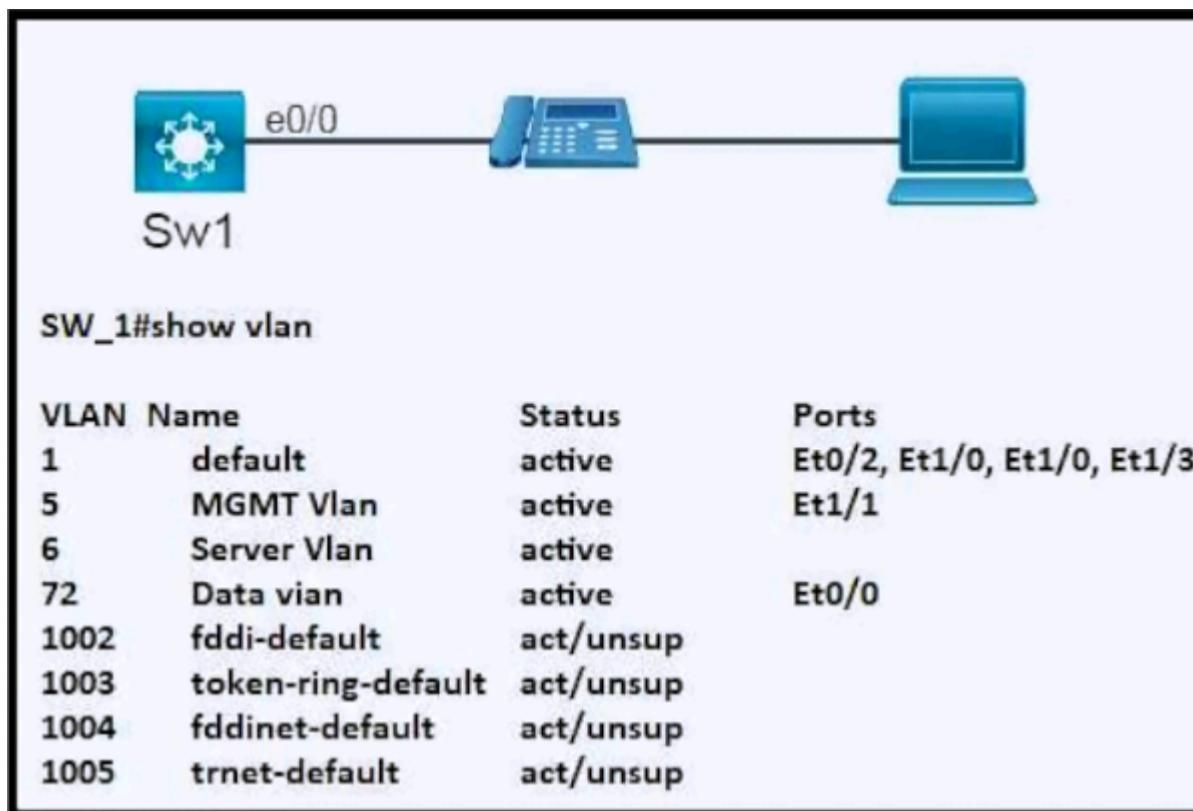


Refer to the exhibit. PC A is communicating with another device at IP address 10.227.151.255. Through which router does router Y route the traffic?

- A. router A
- B. router B
- C. router C
- D. router D

Question #1222

Topic 1



Refer to the exhibit. VoIP is being implemented in the network using VLAN ID 73 and named "VoIP". Each user needs a Cisco IP phone at their desk. Switchport e0/0 has been configured as an access port in the data VLAN. Cisco Discovery Protocol is enabled globally. Which command sequence completed the configuration?

- A.

```
vlan73
name VoIP
e0/0
switchport voice vlan dot1p
```
- B.

```
vlan 73
name VoIP
e0/0
switchport trunk allowed vlan 72,73
switchport voice vlan 73
```
- C.

```
vlan 73
name VoIP
e0/0
switchport mode trunk
channel-group 73 mode active
```
- D.

```
vlan 73
name VoIP
e0/0
switchport voice vlan 73
```

Question #1223

Topic 1

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

 10.0.0.0/8 is variably subnetted, 6 subnets, 5 masks
 S     10.0.0.0/8 is directly connected, GigabitEthernet0/0
 C     10.1.1.0/24 is directly connected, GigabitEthernet0/0
 L     10.1.1.1/32 is directly connected, GigabitEthernet0/0
 S     10.10.0.0/22 is directly connected, GigabitEthernet0/0
 S     10.10.10.0/28 is directly connected, GigabitEthernet0/0
 S     10.10.10.1/32 is directly connected, GigabitEthernet0/0
 S*    0.0.0.0/0 is directly connected, GigabitEthernet0/0
```

Refer to the exhibit. Which IP route command created the best path for a packet destined for 10.10.10.3?

- A. ip route 10.10.0.0 255.255.252.0 g0/0
- B. ip route 10.10.10.0 255.255.255.240 g0/0
- C. ip route 10.0.0.0 255.0.0.0 g0/0
- D. ip route 10.10.10.1 255.255.255.255 g0/0

Question #1224

Topic 1

Which cable type must be used when connecting a router and switch together using these criteria?

- Pins 1 and 2 are receivers and pins 3 and 6 are transmitters.
 - Auto detection MDI-X is unavailable.
- A. crossover
 - B. rollover
 - C. console
 - D. straight-through

Question #1225

Topic 1

Which protocol does a REST API use to communicate?

- A. SSH
- B. STP
- C. SNMP
- D. HTTP

Question #1226

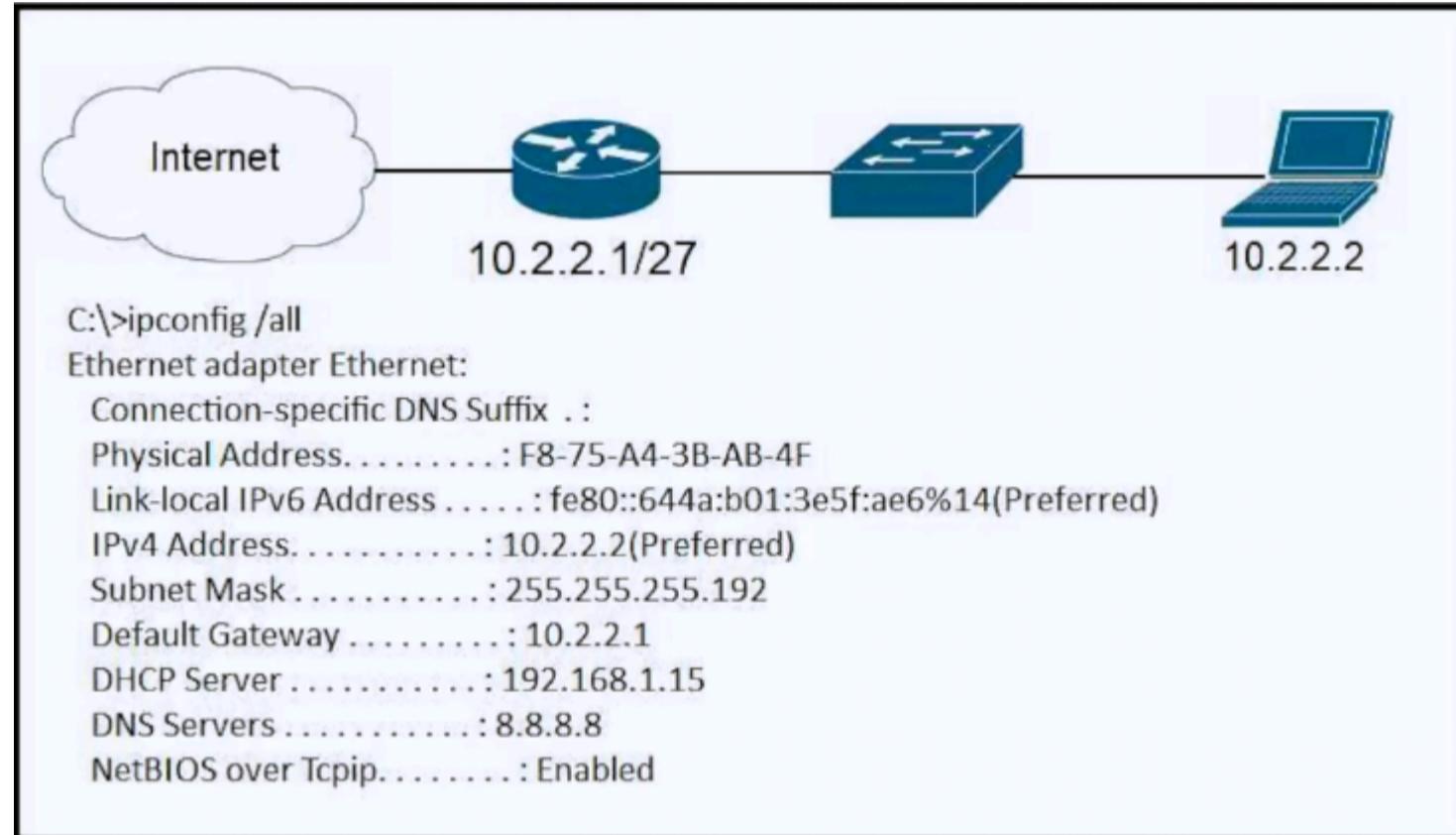
Topic 1

Which interface on the WLC is limited to one when LAG is in use?

- A. service
- B. virtual
- C. trunk
- D. AP-manager

Question #1227

Topic 1



Refer to the exhibit. A newly configured PC fails to connect to the internet by using TCP port 80 to www.cisco.com. Which setting must be modified for the connection to work?

- A. Subnet Mask
- B. DNS Servers
- C. Default Gateway
- D. DHCP Servers

Question #1228

Topic 1

Which fact must the engineer consider when implementing syslog on a new network?

- A. Syslog defines the software or hardware component that triggered the message.
- B. There are 16 different logging levels (0-15).
- C. The logging level defines the severity of a particular message.
- D. By default, all message levels are sent to the syslog server.

Question #1229

Topic 1

In what way does a network supervisor reduce maintenance costs while maintaining network integrity on a traditionally managed network?

- A. They install an automated network-monitoring system to provide early warning of network issues.
- B. They employ additional network administrators to proactively manage the network.
- C. They use automation to centralize network-management tasks.
- D. They automate change-management processes that verify issue resolution.

Question #1230

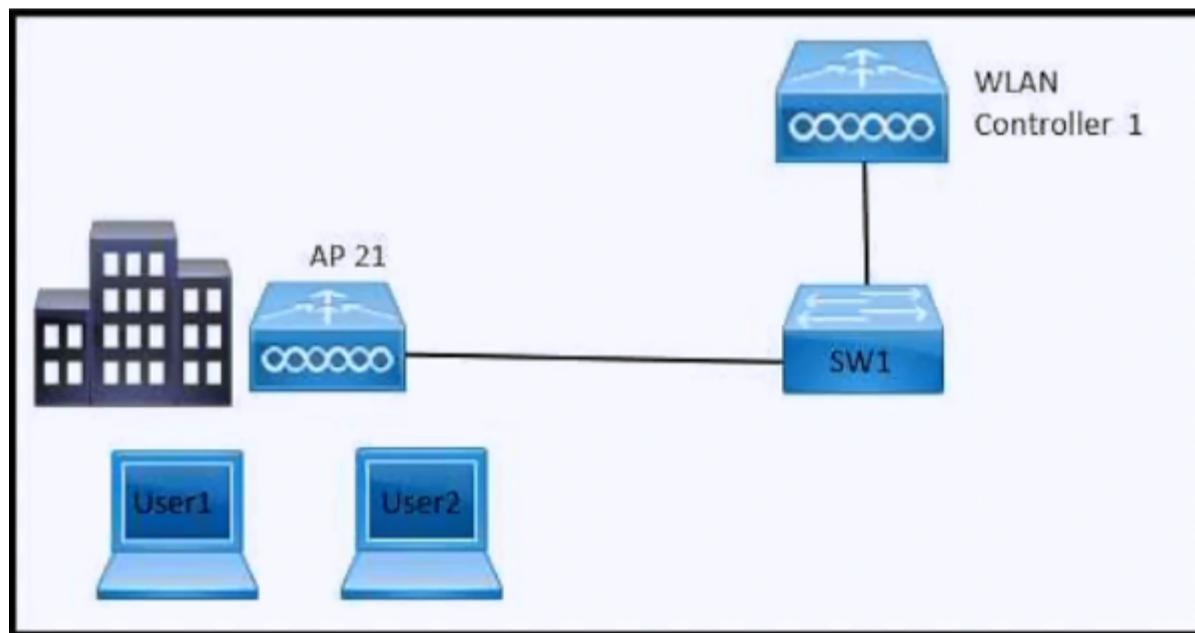
Topic 1

Which type of wired port is required when an AP offers one unique SSID, passes client data and management traffic, and is in autonomous mode?

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

Question #1231

Topic 1



Refer to the exhibit. A network engineer must configure the WLC to allow only DHCP and DNS packets for User1 and User2. Which configuration must be used?

- A. Enable Web Authentication for 802.1X standard in the Layer 2 Security configuration
- B. Enable Fallback Policy with MAC filtering under the Layer 3 Security configuration
- C. Enable Web policy and Authentication in the Layer 3 Security configuration.
- D. Enable Web Authentication under the AAA Server configuration on the WLAN.

Question #1232

Topic 1

Which connection type is used when an engineer connects to an AP without a configured IP address or dial-up number to manage the device?

- A. AUX
- B. Ethernet
- C. VIY
- D. console

Question #1233

Topic 1

What is a function of a firewall on an enterprise network?

- A. It allows and denies ingress and egress traffic.
- B. It serves as a default gateway to hosts on the internet.
- C. It processes traffic based on stateless inspection.
- D. It acts as the intermediary device between the enterprise and its ISP.

Question #1234

Topic 1

Which protocol is implemented when an organization must verify network performance, troubleshoot issues, and use an agent to communicate between monitoring tools and end devices?

- A. FIP
- B. NIP
- C. NFS
- D. SNMP

Question #1235

Topic 1

What is a difference between an IPv6 multicast address and an IPv6 anycast address?

- A. An IPv6 multicast address uses the prefix 2002::/15 and forwards to one destination, and an IPv6 anycast address uses the prefix ff00:/8 and forwards to any destination in a group.
- B. A packet sent to an IPv6 multicast address is delivered to one or more destinations at once, but a packet sent to an IPv6 anycast address is routed to the closest interface with that address.
- C. IPv6 multicast addresses are used to transition from IPv4 to IPv6, and IPv6 anycast addresses are used for address aggregation in an IPv6-only environment.
- D. An IPv6 multicast address is assigned to numerous interfaces within a subnet, but an IPv6 anycast address is used for a predefined group of nodes in an all-IPv6 routers group.

Question #1236

Topic 1

Which syslog message logging level displays interface line protocol up/down events?

- A. informational
- B. alerts
- C. debugging
- D. notifications

Question #1237

Topic 1

Which device protects an internal network from the Internet?

- A. router
- B. firewall
- C. access point
- D. Layer 2 switch

Question #1238

Topic 1

Which encryption mode is used when a packet is sent from a site-to-site VPN connection where the source and destination IP address portion of a packet is unencrypted?

- A. PPTP
- B. Secure Shell
- C. Transport
- D. PPPoE

Question #1239

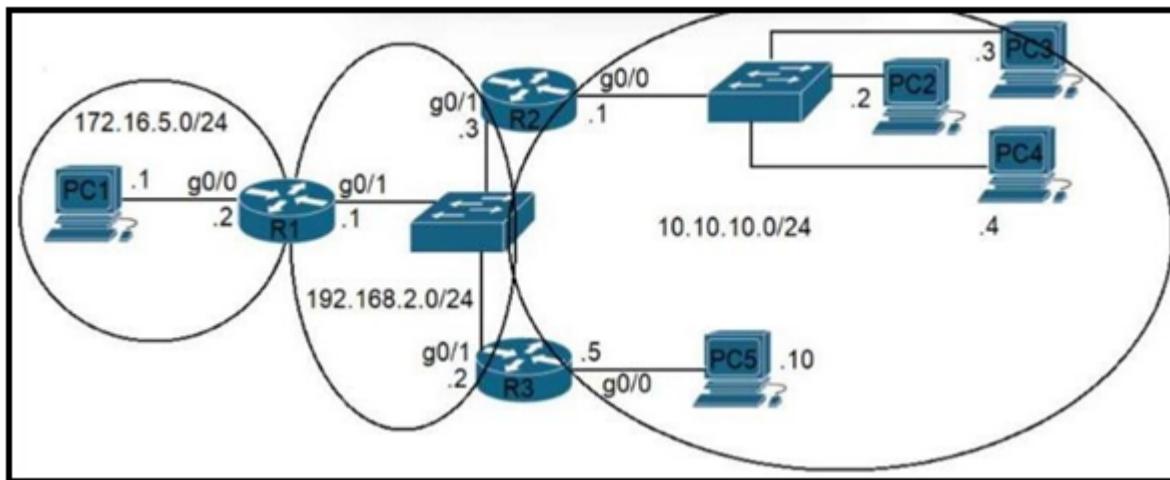
Topic 1

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

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

Question #1240

Topic 1



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
ip route 10.10.10.10 255.255.255.255 192.168.2.2
- B. ip route 10.10.10.0 255.255.255.0 192.168.2.2
ip route 10.10.2.2 255.255.255.255 10.10.10.10
- C. ip route 10.10.10.0 255.255.255.0 192.168.2.3
ip route 10.10.10.8 255.255.255.252 g0/0
- D. ip route 10.10.10.0 255.255.255.248 192.168.2.2
ip route 10.10.2.8 255.255.255.252 g0/1

Question #1241

Topic 1

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

Refer to the exhibit. A packet sourced from 172.18.33.2 is destined for 172.18.32.38. Where does the router forward the packet?

- A. 10.1.1.1
- B. 10.1.1.3
- C. Loopback0
- D. GigabitEthernet0/0

Question #1242

The screenshot shows the 'Advanced' tab of a Cisco Wireless LAN Controller (WLC) configuration interface. The left pane contains various configuration options:

- Allow AAA Override: Enabled
- Coverage Hole Detection: Enabled
- Enable Session Timeout:
- Aironet IE: Enabled
- Diagnostic Channel: Enabled
- Override Interface ACL: IPv4: IPv6:
- Layer2 Acl:
- URL ACL:
- P2P Blocking Action:
- Client Exclusion: Enabled, Timeout Value (secs):
- Maximum Allowed Clients:
- Static IP Tunneling: Enabled
- Wi-Fi Direct Clients Policy:
- Maximum Allowed Clients Per AP Radio:
- Clear HotSpot Configuration: Enabled

The right pane contains sections for DHCP, Management Frame Protection (MFP), NAC, Load Balancing, and Passive Client settings. Most of these sections have their first checkbox checked.

Refer to the exhibit. An administrator is configuring a new WLAN for a wireless network that has these requirements:

- Dual-band clients that connect to the WLAN must be directed to the 5-GHz spectrum.
- Wireless clients on this WLAN must be able to apply VLAN settings on the returned RADIUS attributes.

Which two actions meet these requirements? (Choose two.)

- Enable the Client Band Select option.
- Enable the Coverage Hole Detection option.
- Enable the Allow AAA Override option.
- Set the MFP Client Protection option to Required.
- Enable the Aironet IE option

Question #1243

Topic 1

How does a network administrator securely manage an AP in lightweight mode?

- using the AP GUI via an in-band SSH connection
- using the CLI via an out-of-band connection
- using the CLI via a virtual interface with SSH
- using the WLC GUI via HTTPS

Question #1244

Topic 1

Which type of protocol is VRRP?

- A. allows two or more routers to act as a default gateway
- B. uses Cisco-proprietary First Hop Redundancy Protocol
- C. uses a destination IP address 224.0.0.102 for router-to-router communication
- D. uses dynamic IP address assignment

Question #1245

Topic 1

```
cat9k-acc-1# show interfaces gigabitethernet 1/0/1
gigabitethernet 1/0/1 is up, line protocol is up
Hardware is gigabitethernet, address is aa00.0400.0134 (via 0000.0c00.4369)
MTU 1500 bytes, BW 1000 Kbit, DLY 1000 usec, rely 255/255, load 1/255
Encapsulation ARPA, loopback not set, keepalive set (10 sec)
ARP type: ARPA, PROBE, ARP Timeout 4:00:00
Last input 0:00:00, output 0:00:00, output hang never
Output queue 1/1, 1 drops; input queue 0/0, 0 drops
Five minute input rate 61000 bits/sec, 200 packets/sec
Five minute output rate 1000 bits/sec, 200 packets/sec
2295197 packets input, 305539992 bytes, 0 no buffer
Received 1925500 broadcasts, 0 runts, 0 giants
0 input errors, 1790 CRC, 1790 frame, 0 overrun, 0 ignored, 0 abort
0 input packets with dribble condition detected
3594664 packets output, 436549843 bytes, 1 underruns
0 output errors, 1 collisions, 1 interface resets, 0 restarts
```

Refer to the exhibit. The switch cat9k-acc-1 connects users to the campus LAN. Printing services are inaccessible through the network. Which interface issue is causing the connectivity problems?

- A. A bad checksum is causing Ethernet frames to drop.
- B. Excessive collisions are causing dropped frames.
- C. A large number of broadcast packets are resulting in a port reset.
- D. The interface output queue cannot process the Ethernet frames.

Question #1246

Topic 1

Which standard is required when more than one distribution system port and only one IP address are configured for a Cisco WLC?

- A. 802.3ad
- B. 802.1q
- C. 802.1d
- D. 802.1af

Topic 1

Question #1247

Which capability does TFTP provide?

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

Question #1248

Topic 1

Which action protects a network from VLAN hopping attacks?

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

Question #1249

Topic 1

What should a network administrator consider when deciding to implement automation?

- A. Automated systems may have difficulty expanding network changes at scale.
- B. Network automation typically is limited to the configuration and management of virtual devices within a network.
- C. Network automation typically increases enterprise management operating costs.
- D. Manual changes frequently lead to configuration errors and inconsistencies.

Question #1250

Topic 1

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

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

Question #1251

Topic 1

How does IPsec provide secure networking for applications within an organization?

- A. It takes advantage of FTP to secure file transfers between nodes on the network.
- B. It provides GRE tunnels to transmit traffic securely between network nodes.
- C. It enables sets of security associations between peers.
- D. It leverages TFTP providing secure file transfers among peers on the network.

Question #1252

Topic 1

Network security team noticed that an increasing number of employees are becoming victims of phishing attacks. Which security program should be implemented to mitigate the problem?

- A. email system patches
- B. physical access control
- C. software firewall enabled on all PCs
- D. user awareness training

Question #1253

Topic 1

What is a characteristic of frame switching?

- A. populates the ARP table with the egress port
- B. drops received MAC addresses not listed in the address table
- C. stores and forwards frames in a buffer and uses error checking
- D. rewrites the source and destination MAC address

Question #1254

Topic 1

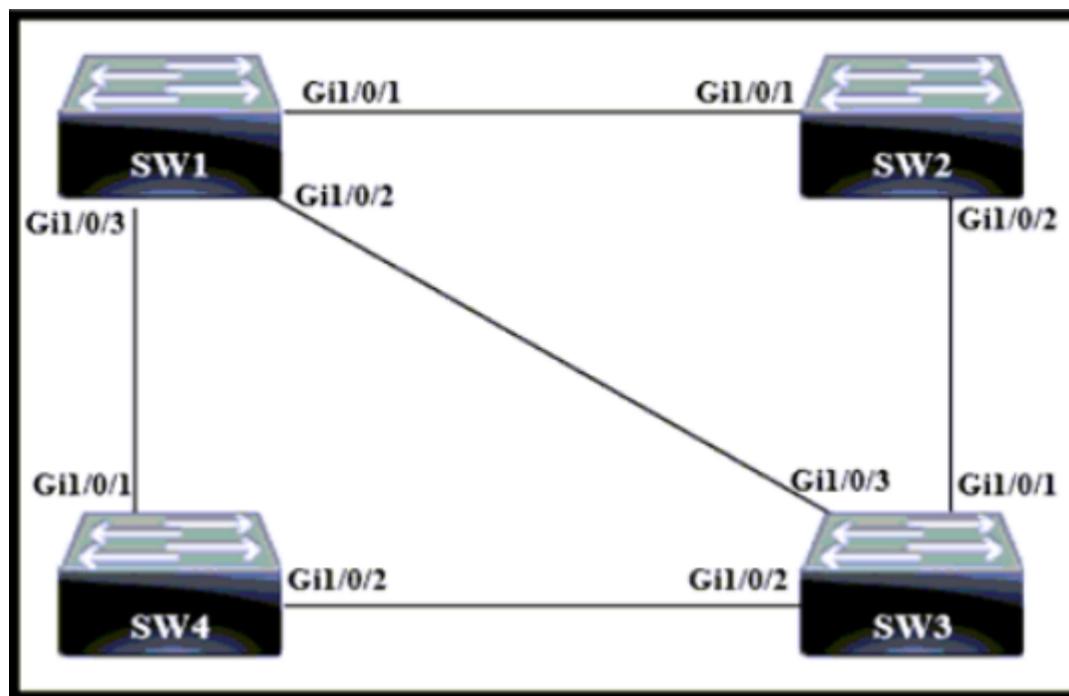
What is represented by the word "R20" within this JSON schema?

```
1 [  
2 {"firewall": "FW12", "port": "e0/23"},  
3 {"router": "R20", "port": "te5/5"},  
4 {"switch": "SW25", "port": "ge1/36"}.  
5 ]
```

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

Question #1255

Topic 1



Refer to the exhibit. Which switch becomes the root bridge?

A. SW3 -

Bridge Priority - 28672 -
mac-address 00:10:a1:51:57:51

B. SW2 -

Bridge Priority - 28672 -
mac-address 00:10:a1:82:03:94

C. SW1 -

Bridge Priority - 12288 -
mac-address 00:10:a1:95:2b:77

D. SW4 -

Bridge Priority - 12288 -
mac-address 00:10:a1:03:42:e8

Question #1256

DRAG DROP

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

never used as a source address

allows sites to be combined without address conflicts

unable to route on the internet

provides one-to-many communications

Multicast

Unique Local

Question #1257

What is a characteristic of a Layer 2 switch?

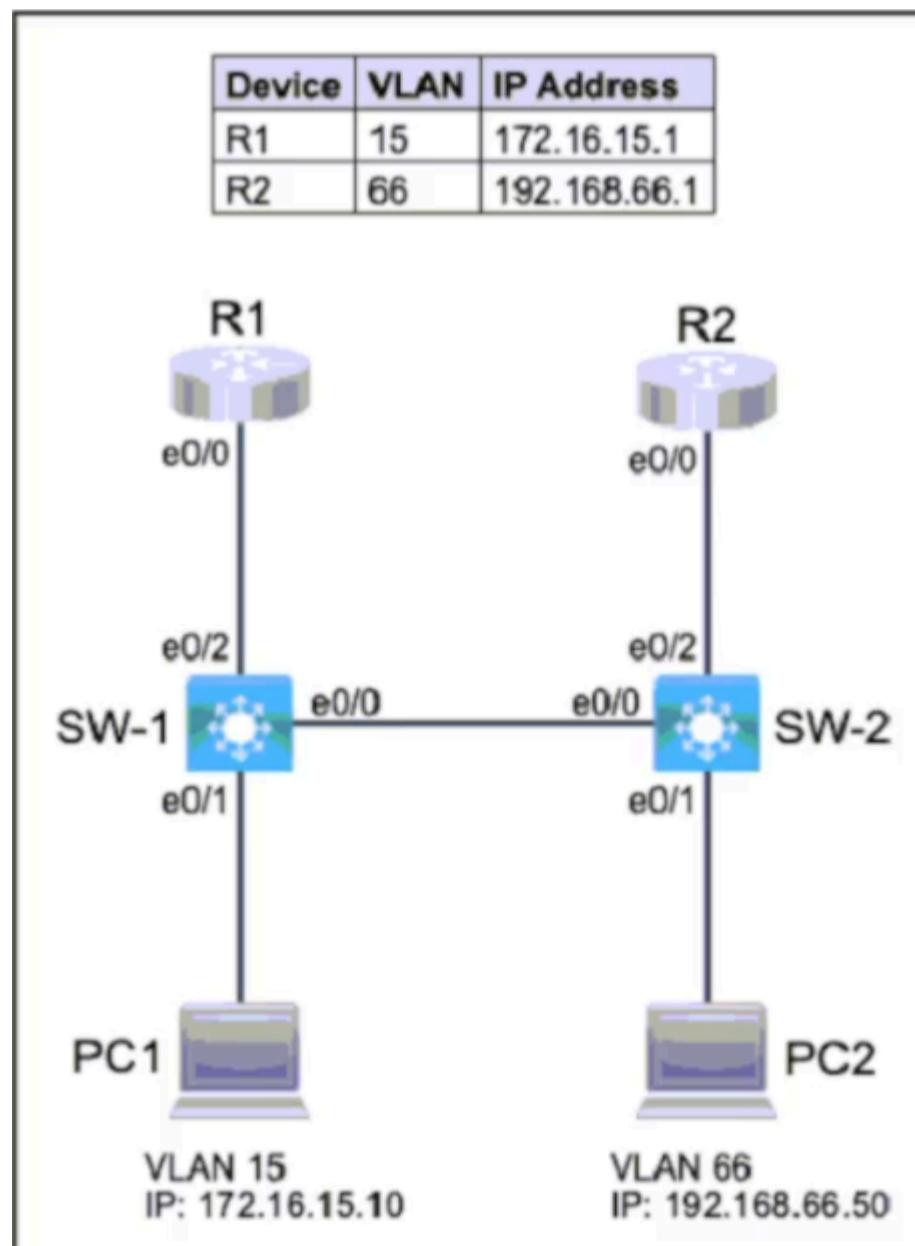
- A. responsible for sending data in a particular sequence
- B. uses routers to create collision domains
- C. avoids MAC address storage for faster transmission
- D. uses the data link layer for communications

Question #1258

SIMULATION**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.

Topology**Tasks**

R1 and R2 are pre-configured with all the necessary commands. All physical cabling is in place and verified. Connectivity for PC1 and PC2 must be established to the switches; each port must only allow one VLAN and be operational.

1. Configure SW-1 with VLAN 15 and label it exactly as OPS

2. Configure SW-2 with VLAN 66 and label it exactly as ENGINEERING
3. Configure the switch port connecting to PC1
4. Configure the switch port connecting to PC2
5. Configure the E0/2 connections on SW-1 and SW-2 for neighbor discovery using the vendor-neutral standard protocol and ensure that E0/0 on both switches uses the Cisco proprietary protocol



Question #1259

Topic 1

Which interface condition is occurring in this output?

```
R9# show interface fa0/0
FastEthernet0/0 is up, line protocol is up
Hardware is DEC21140, address is ca02.7788.0000 (bia ca02.7788.0000)
Description: atlanta_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, 100 Mb/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 00:00:18
Input queue: 175/300/0/0 (size/max/drops/flushes); Total output drops: 100
Queueing strategy: fifo
Output queue: 50/300 (size/max)
30 second input rate 0 bits/sec, 0 packets/sec
30 second output rate 0 bits/sec, 0 packets/sec
7331 packets input, 7101162 bytes
Received 267 broadcasts (0 IP multicasts)
0 runts, 0 giants, 0 throttles
0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
0 watchdog
0 input packets with dribble condition detected
3927 packets output, 1440403 bytes, 0 underruns
0 output errors, 0 collisions, 0 interface resets
0 unknown protocol drops
0 babbles, 0 late collision, 0 deferred
0 lost carrier, 0 no carrier
0 output buffer failures, 0 output buffers swapped out
```

- A. broadcast storm
- B. queueing
- C. bad NIC
- D. duplex mismatch

Question #1260

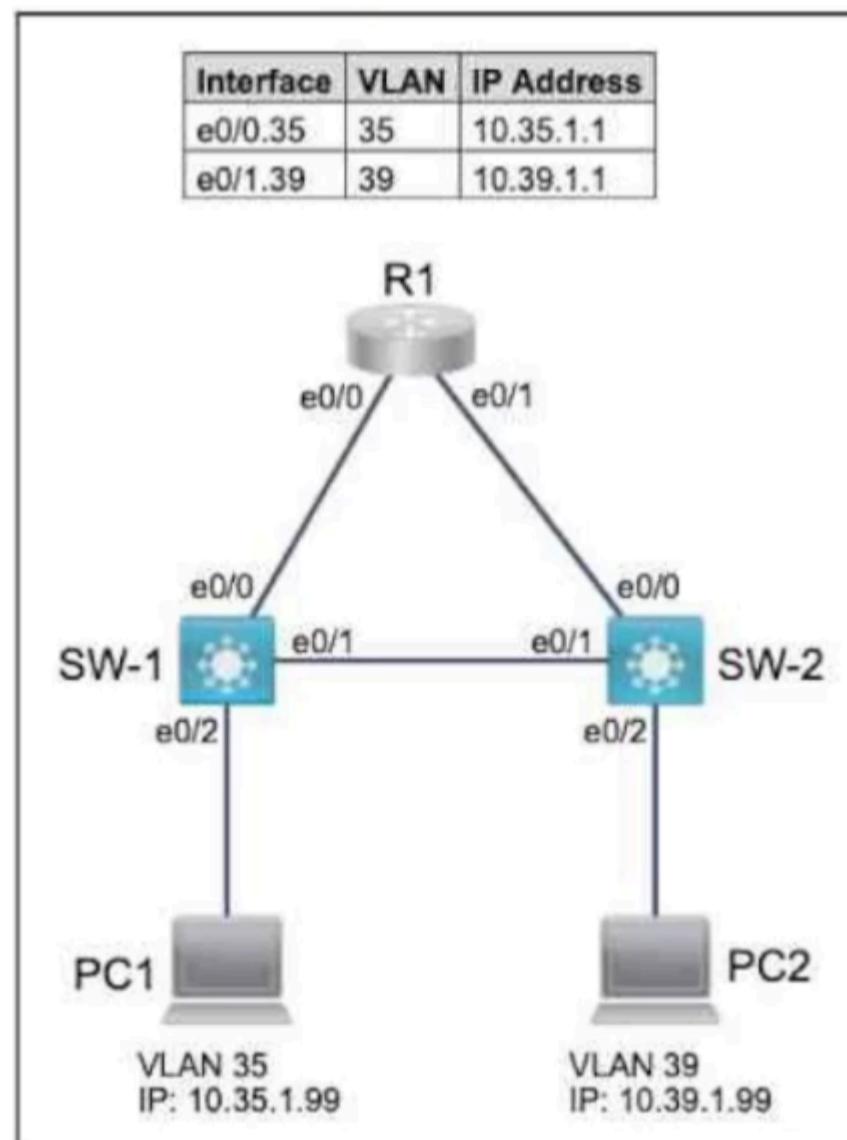
SIMULATION

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.
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Topology

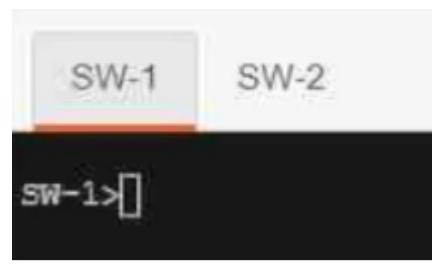


Tasks

R1 has been pre-configured with all the necessary commands. All physical cabling is in place and verified. Connectivity for PC1 and PC2 must be established to the switches, and each port must only allow one VLAN.

1. Configure SW-1 with VLAN 35 and label it exactly as SALES
2. Configure SW-2 with VLAN 39 and label it exactly as MARKETING
3. Configure the switch port connecting to PC1

4. Configure the switch port connecting to PC2
5. Configure SW-1 and SW-2 for universal neighbor discovery using the industry standard protocol and disable it on the interface connecting to PC1



Question #1261

Topic 1

What is represented in line 3 within this JSON schema?

```
1 [  
2 {"switch": "SW_dallas", "port": "ge16"} .  
3 {"load balancer": "LB_munich", "port": "te0/26"},  
4 {"VPN concentrator": "VPN_toronto", "port": "ge8/15"}  
5 ]
```

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

Question #1262

Topic 1

How does MAC learning function?

- A. restricts ports to a maximum of 10 dynamically-learned addresses
- B. increases security on the management VLAN
- C. drops received MAC addresses not listed in the address table
- D. associates the MAC address with the port on which it is received

Question #1263

DRAG DROP

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

counterpart of private IPv4 addresses

publicly routable in the same way as IPv4 addresses

provides for one-to-one communication

may be used by multiple organizations at the same time

Unique Local

Global Unicast Address

Question #1264

Topic 1

How does MAC learning function?

- A. enabled by default on all VLANs and interfaces
- B. increases security on the management VLAN
- C. sends frames with unknown destinations to a multicast group
- D. inspects and drops frames from unknown destinations

Question #1265

Topic 1

What is a characteristic of a Layer 2 switch?

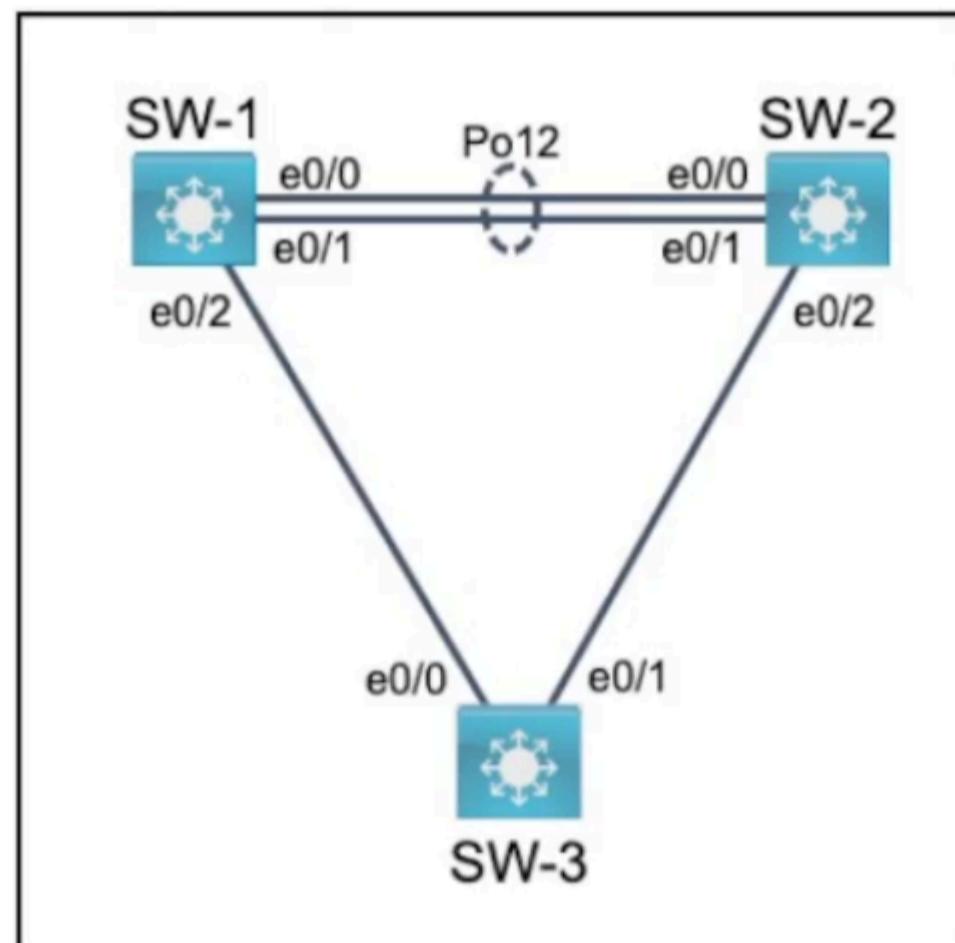
- A. provides a single broadcast domain for all connected devices
- B. tracks the number of active TCP connections
- C. offers one collision domain for all connected devices
- D. makes forwarding decisions based on MAC addresses

Question #1266

SIMULATION**Guidelines**

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

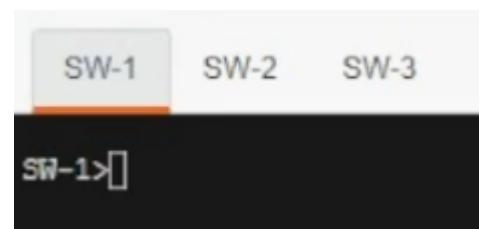
- Refer to the Tasks tab to view the tasks for this lab item.
- Refer to the Topology tab to access the device console(s) and perform the tasks.
- Console access is available for all required devices by clicking the device icon or using the tab(s) above the console window.
- All necessary preconfigurations 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.

Topology**Tasks**

VLANs 35 and 45 have been configured in all three switches. All physical connectivity has been installed and verified. All inter-switch links must be operational.

1. Configure SW-1 and SW-2 switch ports e0/0 and e0/1 for 802.1q trunking allowing all VLANs
2. Configure the inter-switch links on SW-1 e0/2, SW-2 e0/2, and SW-3 e0/0 and e0/1 to use native VLAN 35
3. Configure SW-1 and SW-2 switch ports e0/0 and e0/1 for link aggregation. SW-1 should immediately negotiate LACP and SW-2 must only

respond to LACP requests

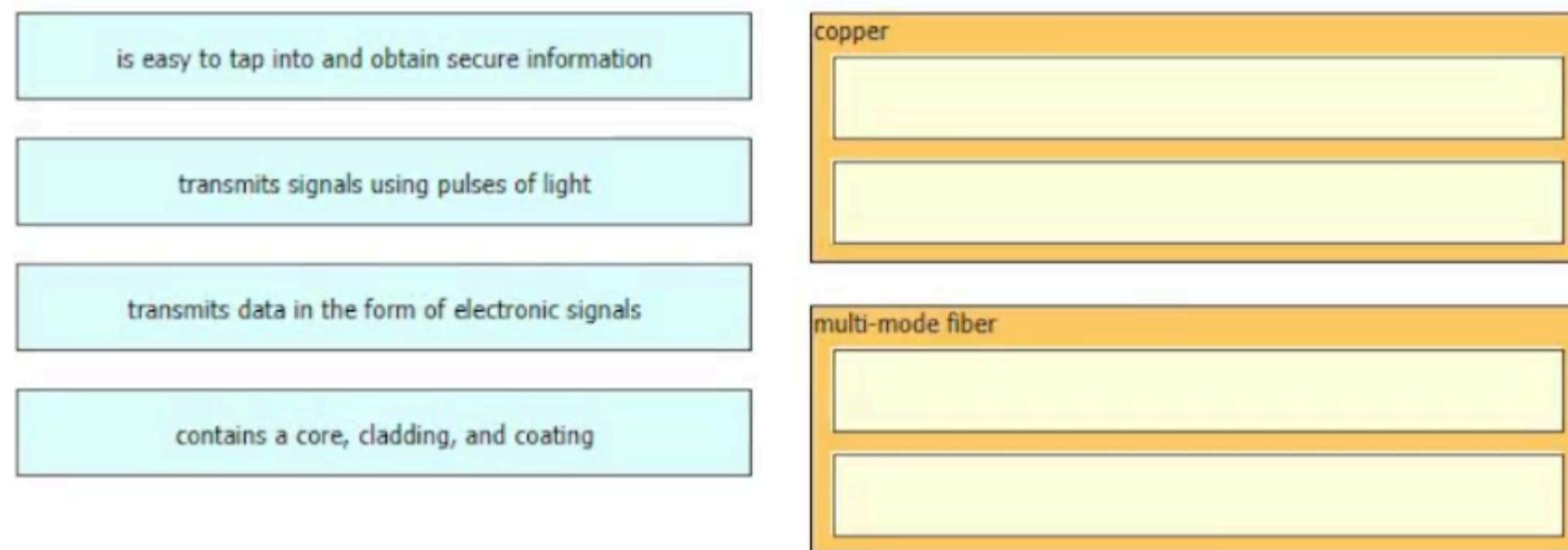


Question #1267

Topic 1

DRAG DROP

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



Question #1268

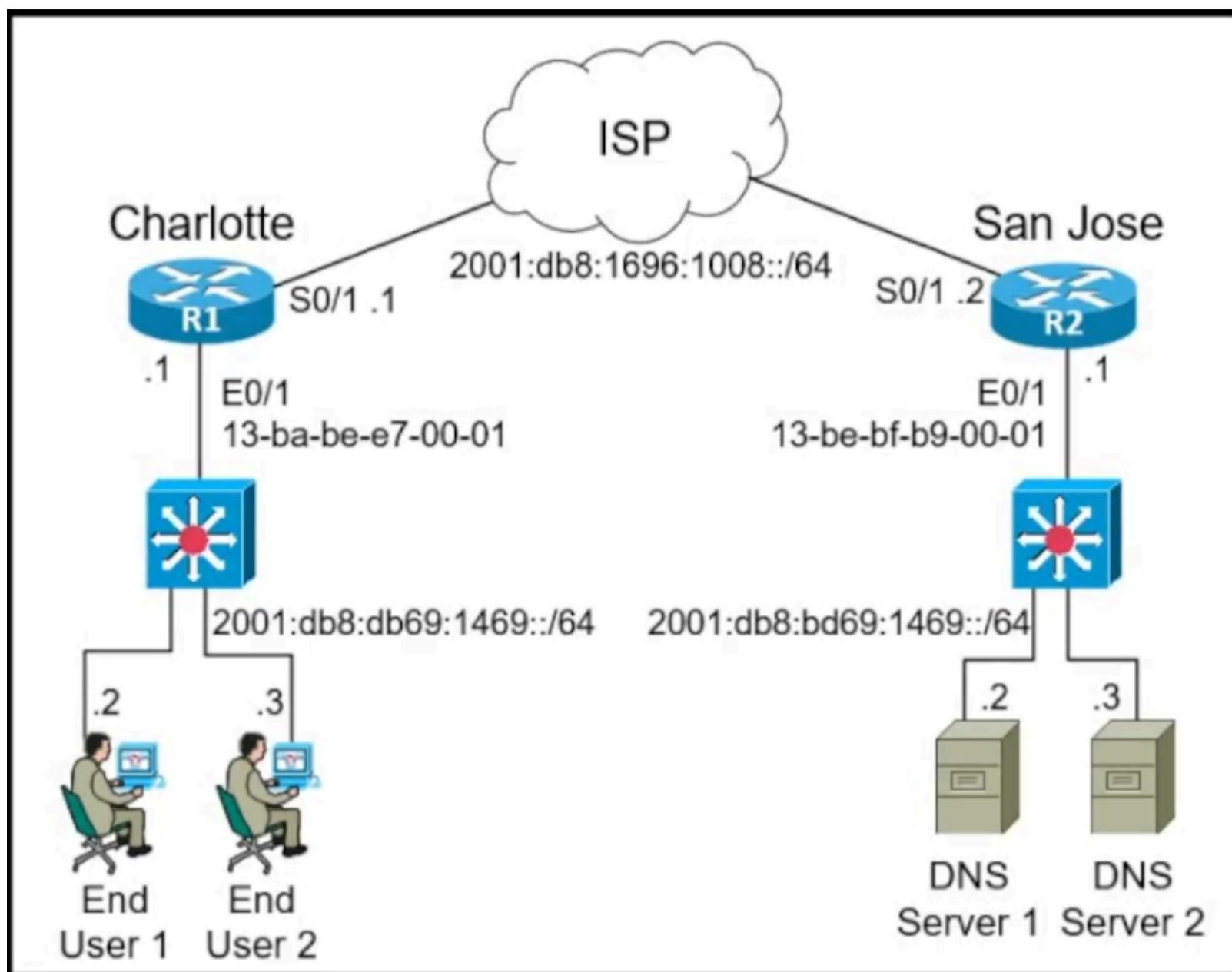
Topic 1

Which two tasks support the physical access control element of a security program? (Choose two.)

- A. Deploy a video surveillance system
- B. Run a workshop on corporate security policies
- C. Implement badge access to critical locations
- D. Develop slideshows about new security regulations
- E. Disperse information about how to protect the organization's confidential data

Question #1269

Topic 1



Refer to the exhibit. The IPv6 address for the LAN segment on router R2 must be configured using the EUI-64 format. When configured, which IPv6 address is produced by the router?

- A. 2001:db8:bd69:1469:12D8:BAFE:FF01:1
- B. 2001:db8:bd69:1469:1130:ABFF:FECC:1
- C. 2001:db8:bd69:1469:4628:255F:FE32:1
- D. 2001:db8:bd69:1469:11BE:BFFF:FEB9:1

Question #1270

Topic 1

What is a characteristic of encryption in wireless networks?

- A. used to ensure data integrity
- B. uses 802.1x as the standard encoding method
- C. uses protocols such as TKIP and CCMP to secure data
- D. only works with the 5Ghz frequency

Question #1271

Topic 1

DRAG DROP

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

is easy to tap into and obtain secure information

attenuation increases over long distances

is comprised of shielded and unshielded twisted pairs

vulnerable to damage when handled

copper

multi-mode fiber

Question #1272

Topic 1

DRAG DROP

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

publicly routable in the same way as IPv4 addresses

sends packets to a group address rather than a single address

never used as a source address

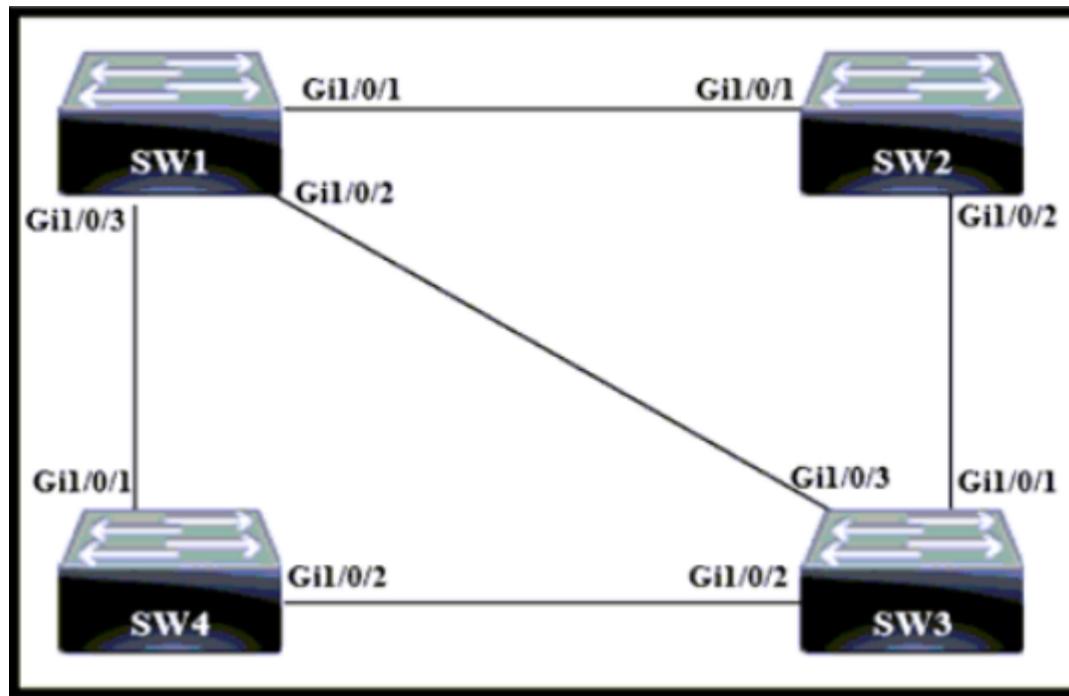
routable and reachable via the Internet

Global Unicast Address

Multicast

Question #1273

Topic 1



Refer to the exhibit. Which switch becomes the root bridge?

A. SW 1 -

Bridge Priority - 61440 -
mac-address 00:10:a1:69:c9:28

B. SW2 -

Bridge Priority - 61440 -
mac address 00:10:a1:27:81:6c

C. SW 3 -

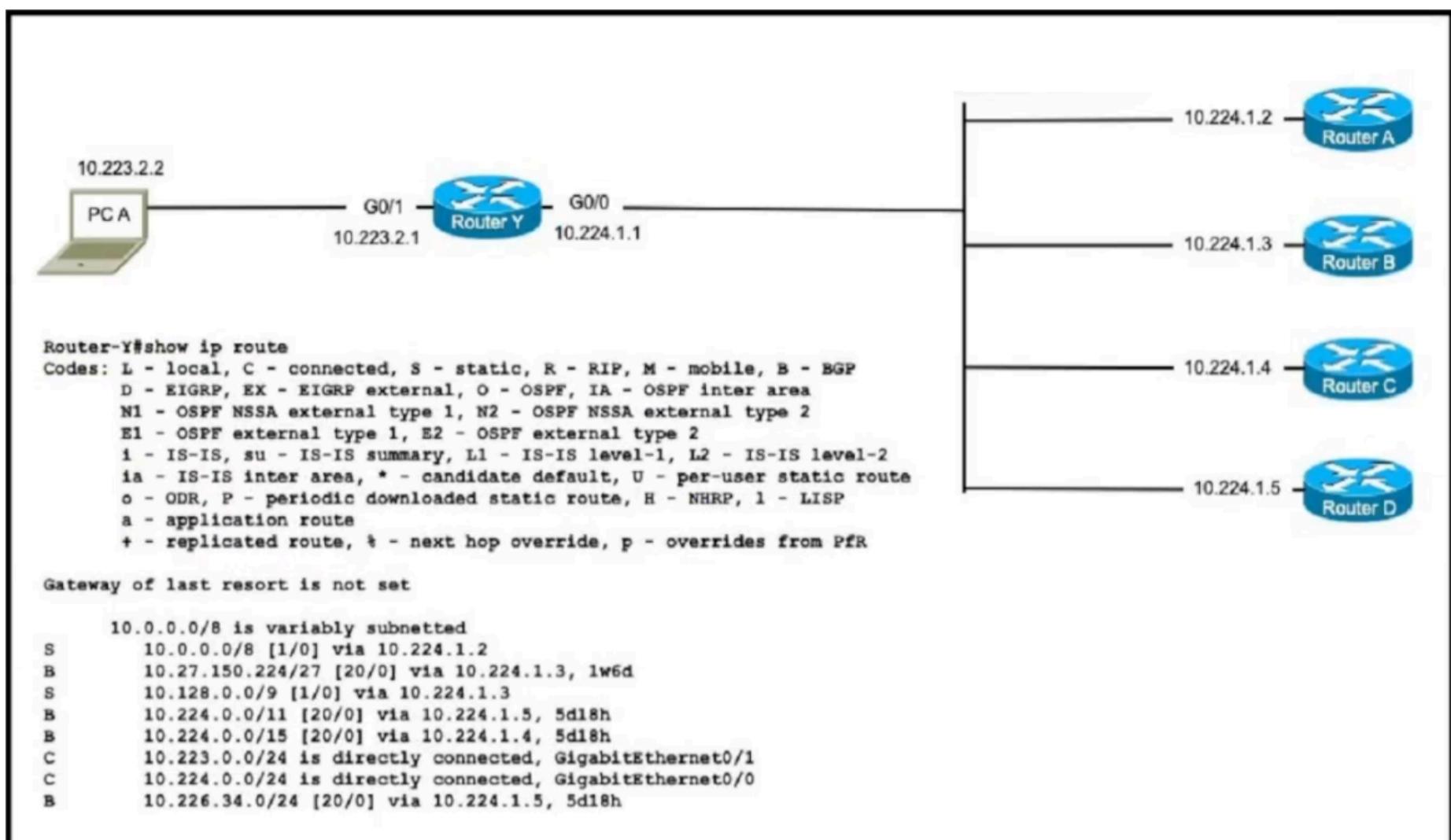
Bridge Priority - 53248 -
mac-address 00:10:a1:35:d9:86

D. SW 4 -

Bridge Priority 53248 -
mac-address 00:10:a1:22:11:63

Question #1274

Topic 1



Refer to the exhibit. PC A is communicating with another device at IP address 10.225.34.225. Through which router does router Y route the traffic?

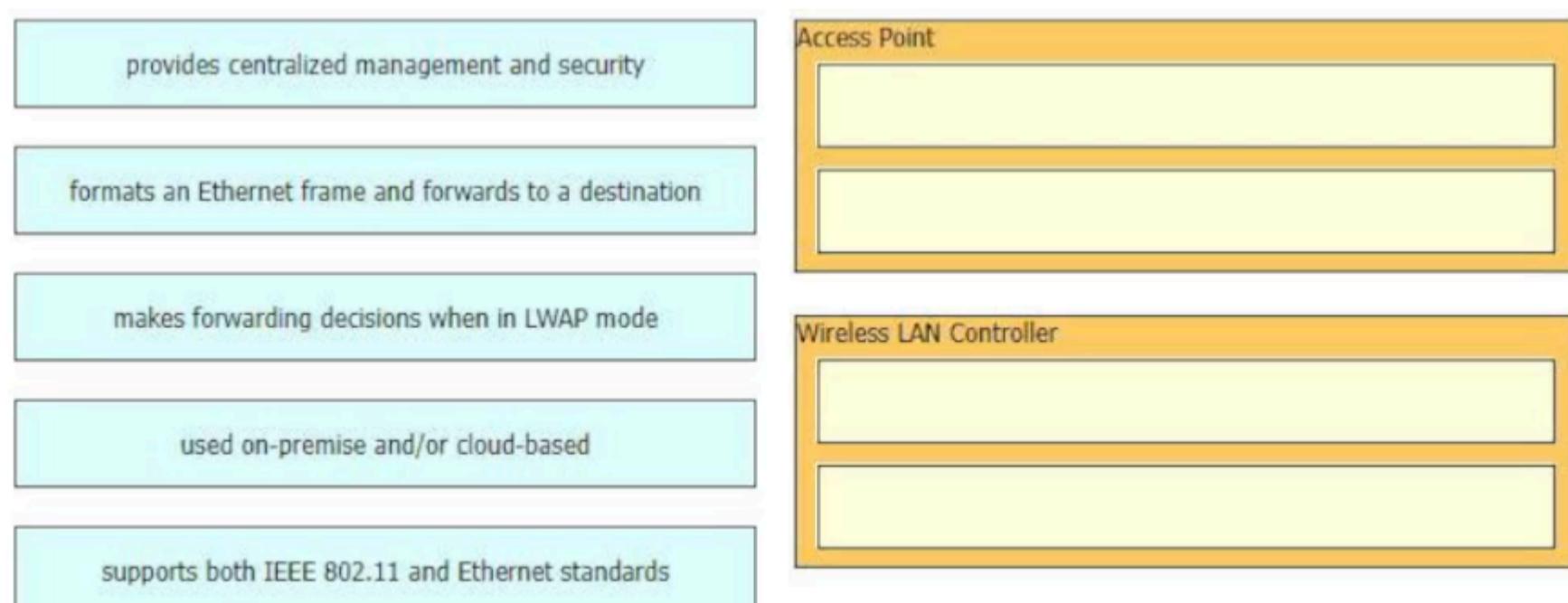
- A. router A
- B. router B
- C. router C
- D. router D

Question #1275

Topic 1

DRAG DROP

Drag and drop the characteristic from the left onto the device type on the right. Not all characteristics are used.



Question #1276

Topic 1

Which interface is used to send traffic to the destination network?

- O 10.18.75.113/27 [110/6906] via G0/6
- O 10.18.75.113/27 [110/23018] via G0/3
- R 10.18.75.113/27 [120/16] via G0/16
- R 10.18.75.113/27 [120/14] via G0/23

- A. G0/6
- B. G0/3
- C. G0/16
- D. G0/23

Question #1277

Topic 1

DRAG DROP

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



Question #1278

Topic 1

Which is a fact related to FTP?

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

Question #1279

Topic 1

```
SW1#show ip interface brief
Interface          IP-Address      OK? Method Status    Protocol
FastEthernet0/1    unassigned      YES manual down     down

SW1#show interface fa0/1 status
Port      Name       Status      Vlan   Duplex  Speed Type
Fa0/1    notconnect  1           a-full  a-100  10/100BaseTX
```

Refer to the exhibit. What is the cause of the issue?

- A. shutdown command
- B. wrong cable type
- C. STP
- D. port security

Question #1280

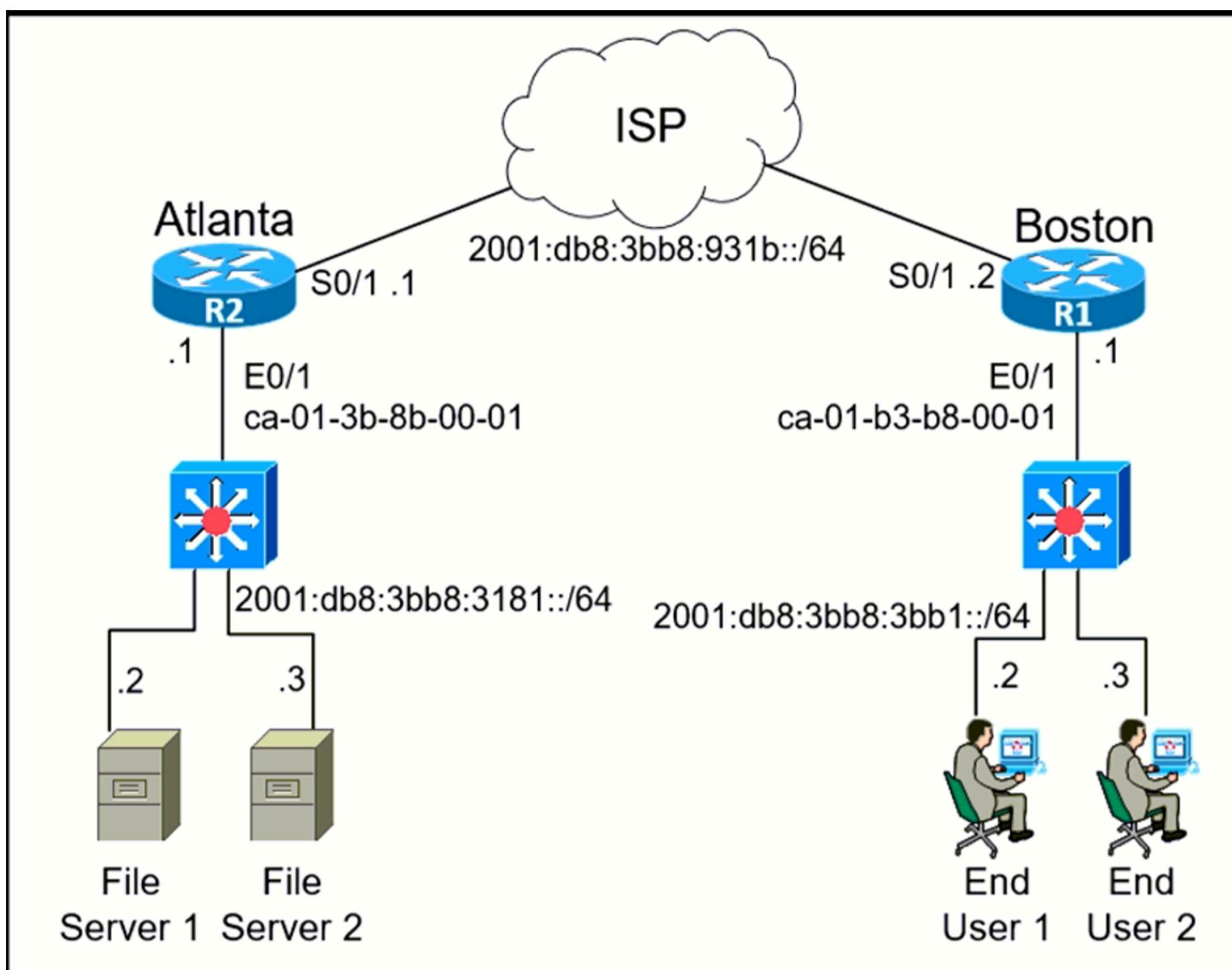
Topic 1

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

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

Question #1281

Topic 1



Refer to the exhibit. The IPv6 address for the LAN segment on router R1 must be configured using the EUI-64 format. When configured which ipv6 address is produced by the router?

- A. 2001:db8:3bb8:3bb1:C810:B3FF:FF8B:1
- B. 2001:db8:3bb8:3bb1:C001:3BFE:FF81:1
- C. 2001:db8:3bb8:3bb4:6363:93FF:EF66:1
- D. 2001:db8:3bb8:3bb1:C801:B3FF:FEB8:1

Question #1282

DRAG DROP

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

fe80:efae:0b2a:56fe:4a87:147f:dc21:7

Global Unicast

ff00:3b64:fbca:171a:6140:6a35:1ea6:12

Link-Local Unicast

fc00:733d:b542:a948:d7fa:eeee:989a:3

Unique Local

2000:e2a1:a1ee:03ed:39a0:4f8e:9f02:1

Multicast

Question #1283

What is a characteristic of a Layer 2 switch?

- A. transfers all frames received to every connected device
- B. offers one collision domain for all connected devices
- C. transmits exclusively at half duplex
- D. supports segmentation using tagging protocols

Question #1284

DRAG DROP

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

affected by electrical and magnetic interference

copper

increased refraction between cladding and core as it travels

copper

easy to tap into and obtain secure information

multi-mode fiber

transmits signals using pulses of light

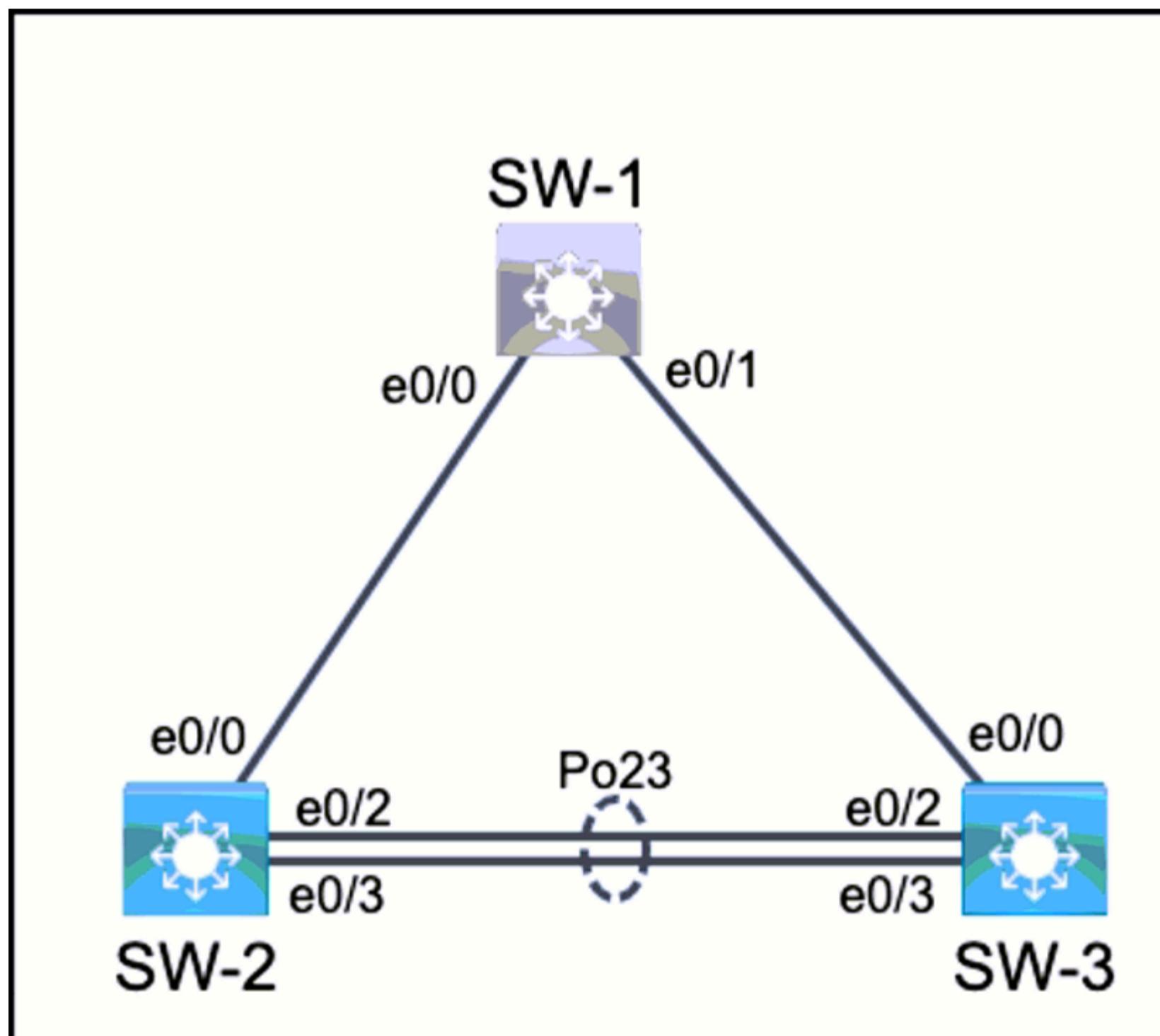
multi-mode fiber

Question #1285

SIMULATION**Guidelines**

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- 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.

Topology**Tasks**

All physical cabling is in place and verified. Switch SW-1 is pre-configured and inaccessible. SW-2 and SW-3 ports must be configured and operational to complete the configuration.

1. Configure SW-2 and SW-3 ports E0/0 to use the industry standard encapsulation method for trunking and only tag VLAN 10
2. Configure SW-2 and SW-3 ports E0/0 to send and receive untagged traffic over VLAN 11
3. Configure SW-2 and SW-3 ports E0/2 and E0/3 to use the industry standard encapsulation method for trunking and tag all VLANS
4. Configure SW-2 and SW-3 ports E0/2 and E0/3 for link aggregation using the industry standard protocol with the following requirements:
 - o SW-2 ports must not initiate the negotiation for the aggregation protocol
 - o SW-3 ports must immediately negotiate the aggregation protocol
 - o Use the designated number assignment

Question #1286

Topic 1

Which cable type must be used when connecting two like devices together using these criteria?

- Pins 1 to 3 and 2 to 6 are required.
- Auto detection MDI-X is unavailable.

- A. straight-through
- B. console
- C. crossover
- D. rollover

Question #1287

Topic 1

What is a characteristic of an SSID in wireless networks?

- A. allows easy file sharing between endpoints
- B. provides protection against spyware
- C. associates a name to a wireless network
- D. eliminates network piggybacking

Question #1288

Topic 1

Which selections must be used on the WLC when implementing a RADIUS server for wireless authentication?

- A. Client Exclusion and SSH
- B. Network Access Control State and SSH
- C. AAA Override and the IP address of the server
- D. 802.1x and the MAC address of the server

Question #1289

DRAG DROP

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

serves as the next-hop addresses in IGP

has a unicast source sent to a group

never used as a source address

confined to a single link

Link-Local Address

Multicast

Question #1290

Topic 1

Which port-security violation mode drops traffic from unknown MAC addresses and forwards an SNMP trap?

- A. shutdown VLAN
- B. protect
- C. restrict
- D. shutdown

Question #1291

Topic 1

What is the purpose of an ESSID?

- A. It allows multiple access points to provide a common network for client connections.
- B. It supports fast roaming features such as 802.11 r, 802.11k, and 802.11v.
- C. It serves as the wireless MAC address of the access point.
- D. It provides greater security than a standard SSID.

Question #1292

Topic 1

DRAG DROP

```
R1# show ip route | begin gateway
Gateway of last resort is not set
  172.16.0.0/16 is variably subnetted, 3 subnets, 2 masks
    172.16.1.0/24 is directly connected, FastEthernet0/0
    172.16.1.1/32 is directly connected, FastEthernet0/0
    172.16.2.0/24 [120/2] via 207.165.200.250, 00:00:25, Serial0/0/0
  192.168.1.0/24 [110/84437] via 207.165.200.254, 00:00:17, Serial0/0/1
  192.168.2.0/24 [90/3184437] via 207.165.200.254, 00:00:15, Serial0/0/1
  207.165.200.0/24 is variably subnetted, 5 subnets, 2 masks
    207.165.200.244/30 [1/1] via 207.165.200.254, Serial0/0/1
    207.165.200.248/30 is directly connected, Serial0/0/0
    207.165.200.249/32 is directly connected, Serial0/0/0
    207.165.200.252/30 is directly connected, Serial0/0/1
    207.165.200.253/32 is directly connected, Serial0/0/1
```

Refer to the exhibit. Drag and drop the learned prefixes from the left onto the preferred route methods from which they were learned on the right. Not all prefixes are used.

172.16.2.0/24	static
192.168.1.0/24	EIGRP
192.168.2.0/24	OSPF
207.165.200.244/30	RIP
207.165.200.248/30	

Question #1293

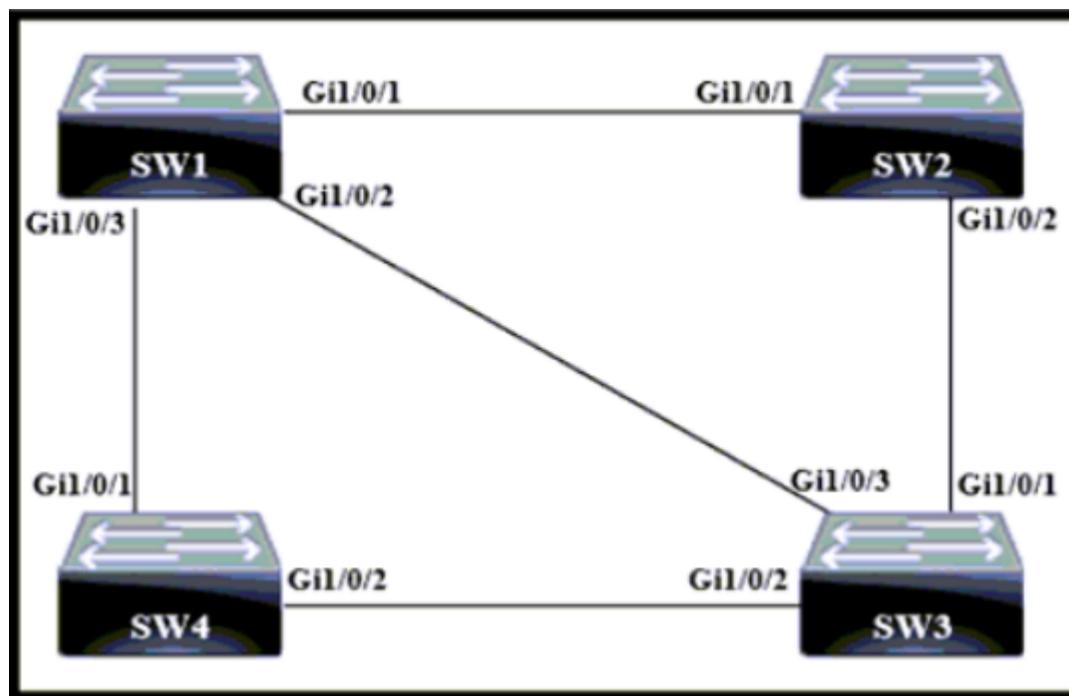
Topic 1

How does a hub handle a frame traveling to a known destination MAC address differently than a switch?

- A. The hub forwards the frame to all ports, and a switch forwards the frame to the known destination.
- B. The hub forwards the frame to all ports in the FIB table, and a switch forwards the frame the destination MAC is known.
- C. The hub forwards the frame using the information in the MAC table, and a switch uses data in its routing table.
- D. The hub forwards the frame only to the port connected to the known MAC address, and a switch forwards the frame to all ports.

Question #1294

Topic 1



Refer to the exhibit. Which switch becomes the root bridge?

A. SW 1 -

Bridge Priority - 20480 -
mac-address 00:10:a1:71:e3:35

B. SW 2 -

Bridge Priority - 20480 -
mac-address 00:10:a1:54:4e:50

C. SW 3 -

Bridge Priority - 57344 -
mac-address 00:10:a1:93:09:2d

D. SW 4 -

Bridge Priority - 57344 -
mac-address 00:10:a1:57:61:80

Question #1295

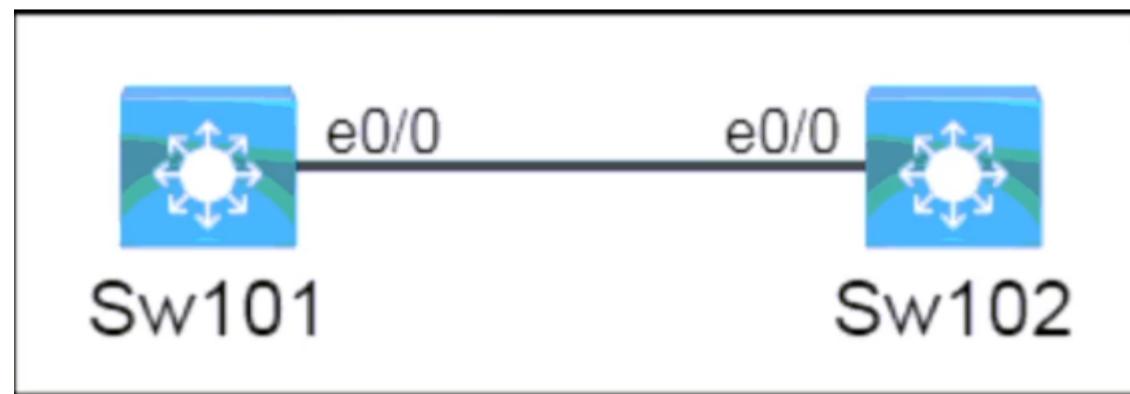
SIMULATION

Guidelines

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Topology



Tasks

All physical cabling is in place. A company plans to deploy 16 new sites. The sites will utilize both IPv4 and IPv6 networks.

1. Subnet 10.20.0.0/16 to meet the subnet requirements and maximize the number of hosts
 - Using the second subnet
 - Assign the first usable IP address to e0/0 on Sw101
 - Assign the last usable IP address to e0/0 on Sw102
2. Subnet 2001:db8::/52 to meet the subnet requirements and maximize the number of hosts
 - Using the second subnet
 - Assign an IPv6 GUA using a unique 64-Bit interface identifier on e0/0 on Sw101
 - Assign an IPv6 GUA using a unique 64-Bit interface identifier on e0/0 on Sw102

Question #1296

Topic 1

Which interface condition is occurring in this output?

```
R18# show interface fa0/0
FastEthernet0/0 is up, line protocol is up
Hardware is DEC21140, address is ca02.7788.0000 (bia ca02.7788.0000)
Description: dallas_subnet
Internet address is 10.32.102.2/30
MTU 1500 bytes, BW 100000 Kbit/sec, DLY 100 usec,
reliability 255/255, txload 255/255, rxload 255/255
Encapsulation ARPA, loopback not set
Keepalive set (60 sec)
Full-duplex, 100 Mb/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 00:00:18
Input queue: 0/300/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/300 (size/max)
30 second input rate 230000000 bits/sec, 40 packets/sec
30 second output rate 200000000 bits/sec, 40 packets/sec
7331 packets input, 7101162 bytes
Received 267 broadcasts (0 IP multicasts)
0 runts, 0 giants, 0 throttles
0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
0 watchdog
0 input packets with dribble condition detected
3927 packets output, 1440403 bytes, 0 underruns
0 output errors, 0 collisions, 0 interface resets
0 unknown protocol drops
0 babbles, 0 late collision, 0 deferred
0 lost carrier, 0 no carrier
0 output buffer failures, 0 output buffers swapped out
```

- A. bad NIC
- B. broadcast storm
- C. duplex mismatch
- D. high throughput

Question #1297

Topic 1

Which interface is used to send traffic to the destination network?

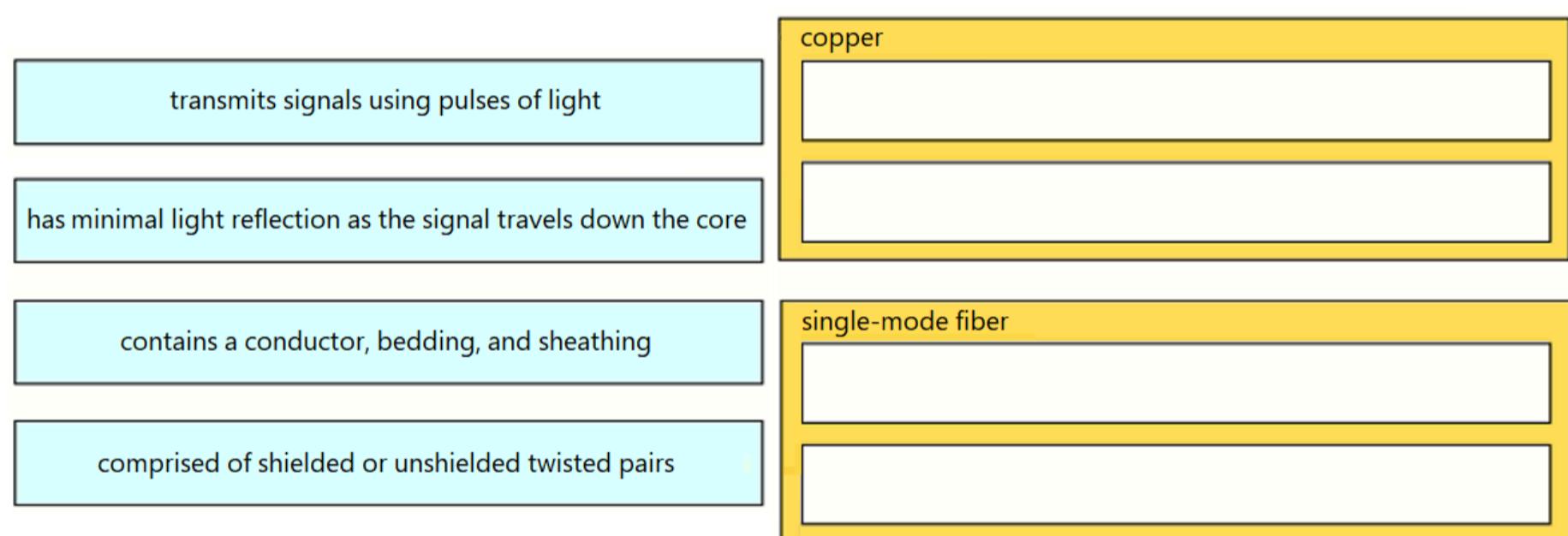
- O 10.90.207.87/26 [110/1912] via F0/7
 - O 10.90.207.87/26 [110/28968] via F0/6
 - R 10.90.207.87/26 [120/14] via F0/4
 - R 10.90.207.87/26 [120/11] via F0/5
-
- A. F0/7
 - B. F0/6
 - C. F0/4
 - D. F0/5

Question #1298

Topic 1

DRAG DROP

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



Question #1299

Topic 1

Which physical component is distributed among multiple virtual machines running on the same hypervisor?

- A. external storage
- B. network interfaces
- C. backplane network
- D. hardware resources

Question #1300

Topic 1

What is a characteristic of private IPv4 addressing?

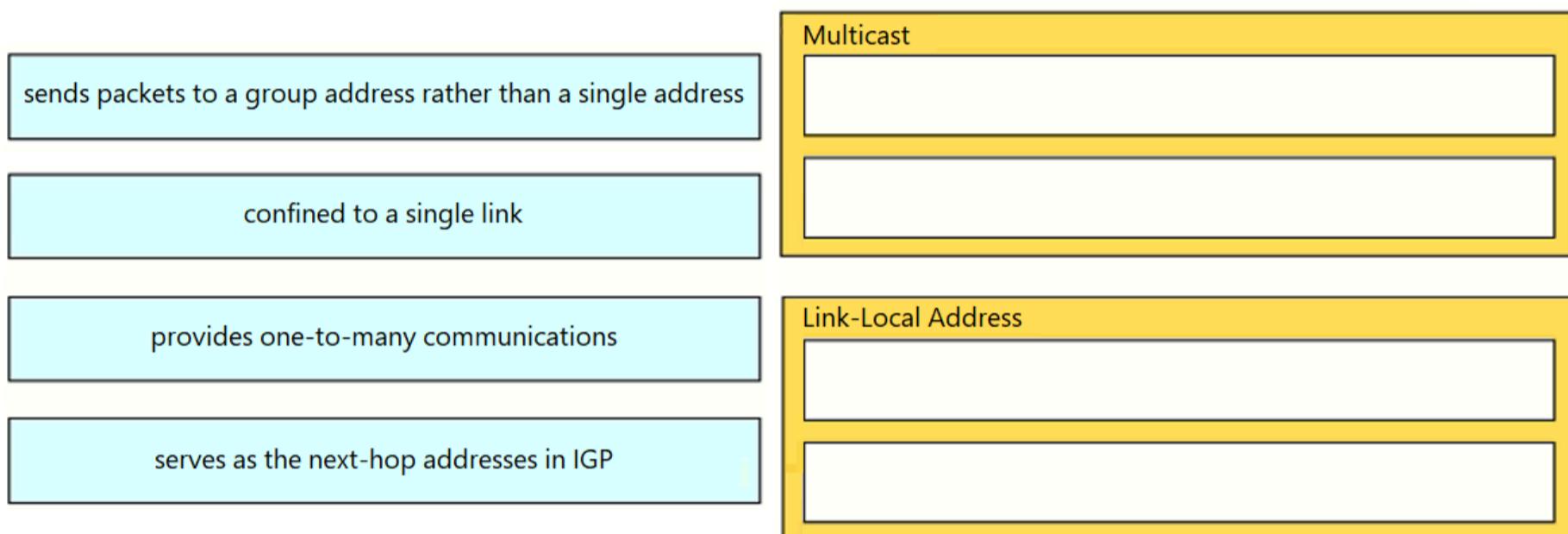
- A. used on the external interface of a firewall
- B. used by ISP's when only one IP is needed to connect to the internet
- C. reduces the forwarding table on network routers
- D. address space which is isolated from the internet

Question #1301

Topic 1

DRAG DROP

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



Question #1302

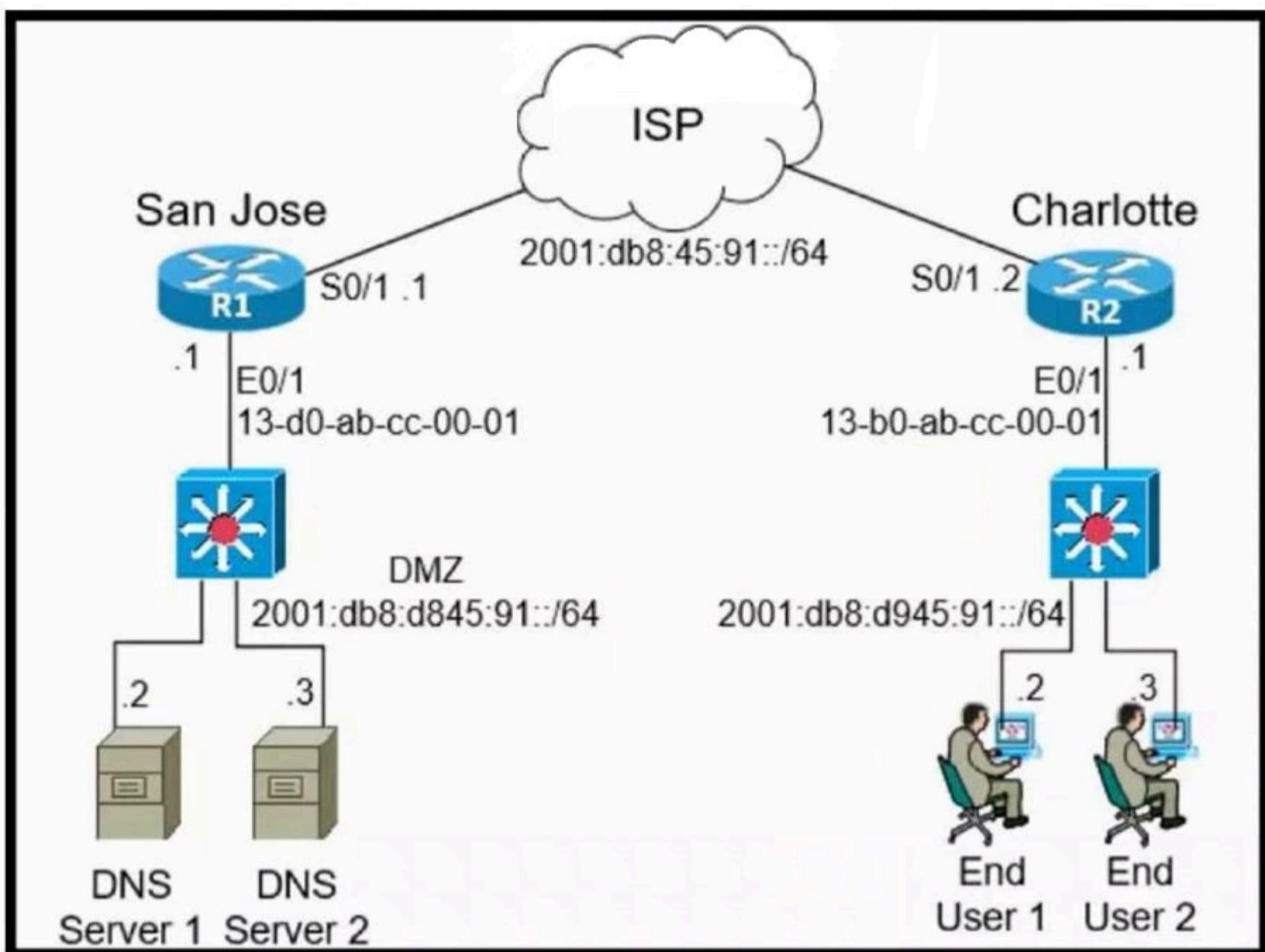
Topic 1

What causes a port to be placed in the err-disabled state?

- A. shutdown command issued on the port
- B. port security violation
- C. nothing plugged into the port
- D. latency

Question #1303

Topic 1



Refer to the exhibit. The IPv6 address for the LAN segment on router R2 must be configured using the EUI-64 format. When configured which ipv6 address is produced by the router?

- A. 2001:db8:d945:91:12A0:AB34:FFCC:1
- B. 2001:db8:d945:91:11B0:ABFF:FECC:1
- C. 2001:db8:d945:91:4661:59FF:FF53:5
- D. 2001:db8:d945:91:1130:ABFF:FECC:1

Question #1304

Topic 1

What is a characteristic of private IPv4 addressing?

- A. reduces the forwarding table on network routers
- B. allows communication across external internet boundaries
- C. assigned by an enterprise organization to internal hosts
- D. complies with Payment Card industry regulations



Refer to the exhibit. Which switch becomes the root bridge?

A. SW 1 -

Bridge Priority - 8192 -
mac-address 00:10:a1:30:eb:38

B. SW 2 -

Bridge Priority - 8192 -
mac-address 00:10:a1:80:fb:29

C. SW 3 -

Bridge Priority - 24576 -
mac-address 00:10:a1:50:55:8f

D. SW 4 -

Bridge Priority - 24576 -
mac-address 00:10:a1:90:7e:66

What is a characteristic of a Layer 2 switch?

- A. responsible for sending data in a particular sequence
- B. maintains stateful transaction information
- C. makes forwarding decisions based on MAC addresses
- D. filters based on a transport layer protocol

Question #1307

What is represented by the word "switch" within this JSON schema?

- 1 [
- 2 {"IDS": "IPS22", "port": "te3/46"},
- 3 {"load balancer": "LB12", "port": "te6/38"},
- 4 {"switch": "SW18", "port": "ge2/41"},
- 5]

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

Question #1308

How does encryption protect the wireless network?

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

Question #1309

DRAG DROP

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

comprised of shielded and unshielded twisted pairs

comprised of insulated glass strands

is affected by electrical and magnetic interference

uses a single wavelength of light

cooper

single-mode fiber

Question #1310

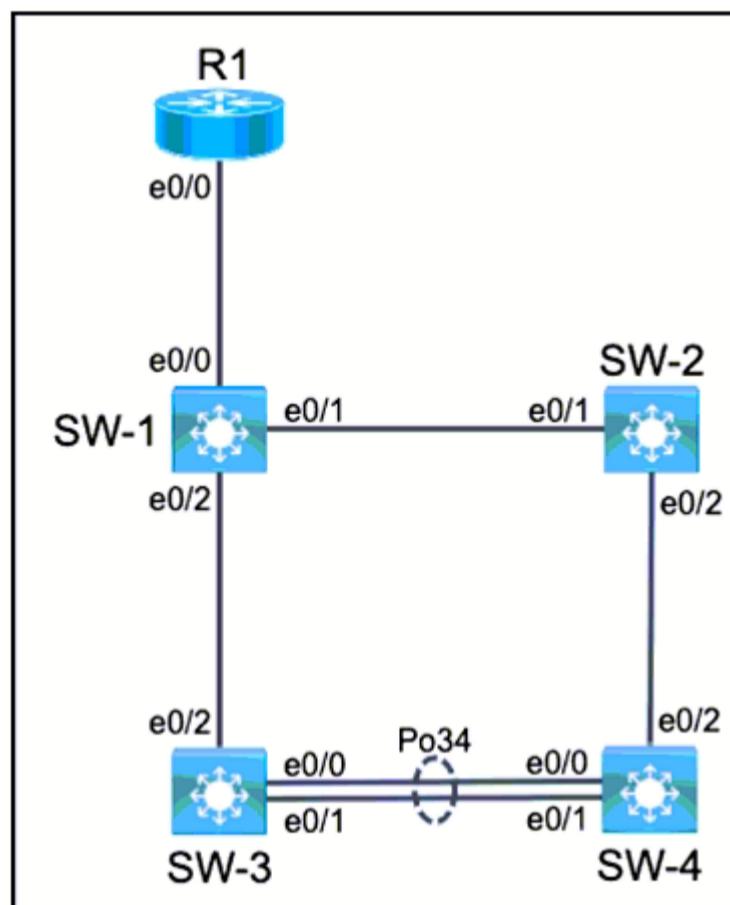
SIMULATION

Guidelines

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Topology



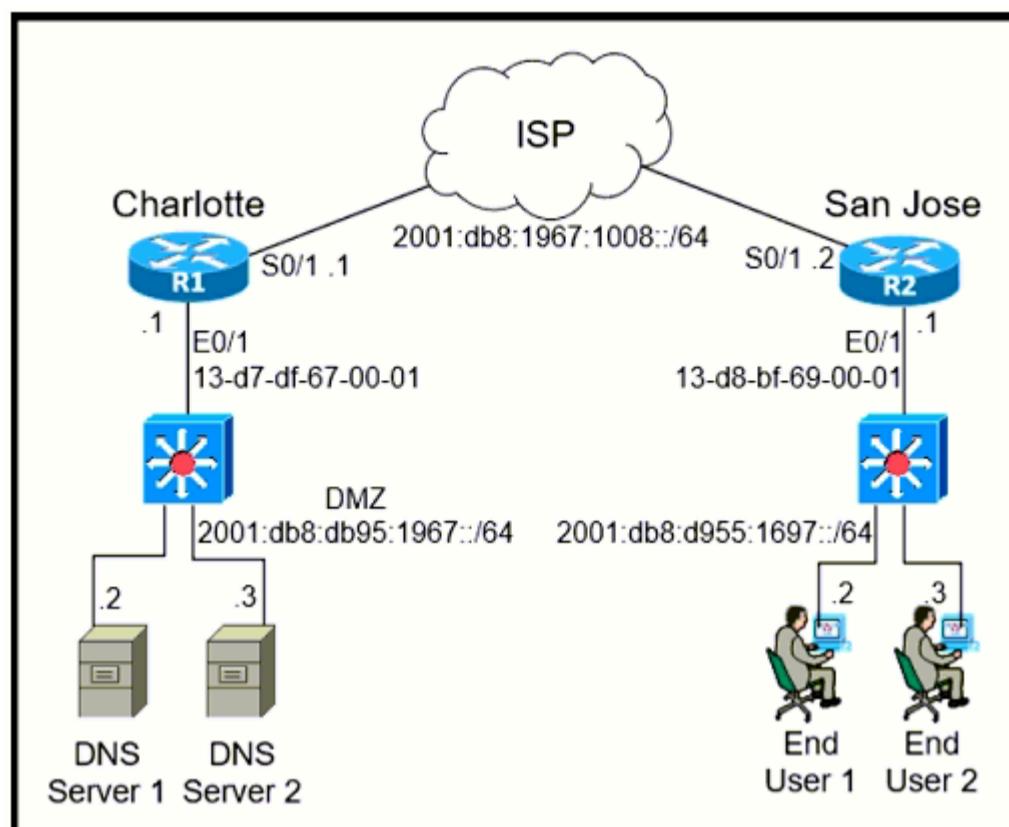
Tasks

All physical cabling is in place and verified. Router R1 is configured and passing traffic for VLANs 5 and 6. All relevant ports are pre-configured as 802.1q trunks.

1. Configure SW-1 port E0/0 to permit only VLANS 5 and 6
2. Configure both SW-1 and SW-2's E0/1 ports to send and receive untagged traffic over VLAN 77
3. Configure SW-2 E0/2 port to permit only VLAN 6
4. Configure both SW-3 and SW-4 ports e0/0 and e0/1 for link aggregation using the industry standard protocol with the following requirements:
 - o SW-3 ports must immediately negotiate the aggregation protocol
 - o SW-4 ports must not initiate the negotiation for the aggregation protocol
 - o Use the designated number assignment

Question #1311

Topic 1



Refer to the exhibit. The IPv6 address for the LAN segment on router R2 must be configured using the EUI-64 format. When configured which ipv6 address is produced by the router?

- A. 2001:db8:d955:1697:1130:ABFF:FECC:1
- B. 2001:db8:d955:1697:4657:149F:FE65:1
- C. 2001:db8:d955:1697:11D8:BFFF:FE69:1
- D. 2001:db8:d955:1697:12D8:BAFE:FF01:1

Question #1312

Topic 1

What is represented by the word "LB13" within this JSON schema?

```

1 [
2 {"load balancer": "LB13", "port": "fe9/2"},
3 {"firewall": "FW20", "port": "e2/28"},
4 {"router": "R41", "port": "te7/27"},
5 ]
  
```

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

Question #1313

```
{  
  "Interfaces": ["ethernet0/3", "ethernet0/4", "ethernet0/5"]  
}
```

Refer to the exhibit. Which type of JSON data is shown?

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

Question #1314

What is a characteristic of private IPv4 addressing?

- A. enables secure connectivity over the internet
- B. allows communication across external internet boundaries
- C. assigned by an enterprise organization to internal hosts
- D. used by ISP's when only one IP is needed to connect to the internet

Question #1315

A DHCP pool has been created with the name NOCC. The pool is using 192.168.20.0/24 and must use the next to last usable IP address as the default gateway for the DHCP clients. What is the next step in the process?

- A. next-server 192.168.20.254
- B. network 192.168.20.254 255.255.255.0 secondary
- C. default-router 192.168.20.253
- D. ip default-gateway 0.0.0.0 0.0.0.0 192.168.20.253

Question #1316

Which Windows command is used instead of the route print command to display the contents of the IP routing table?

- A. ipconfig
- B. netstat -r
- C. netstat -n
- D. ifconfig

Question #1317

Topic 1

What is a characteristic of frame switching?

- A. rewrites the source and destination MAC address
- B. performs a lookup to learn the destination interface
- C. sends a retransmission request when a new frame is received
- D. inspects and drops frames from unknown destinations

Question #1318

Topic 1

```
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 10, Dead 40, Wait 40, 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 1.1.1.1, Network Type POINT-TO-POINT, Cost: 1
  Transmit Delay is 1 sec, State POINT-TO-POINT,
  Timer intervals configured, Hello 15, 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)
```

Refer to the exhibit. The network engineer is confining 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)#interface g0/0/0 -

R2(config-if)#ip ospf hello-interval 10
- B. R2(config)#router ospf 1 -

R2(config-router)#router-id 192.168.1.1
- C. R2(config)#router ospf 1 -

R2(config-router)#network 192.168.1.0 255.255.255.0 area 2
- D. R2(config)#interface g0/0/0 -

R2(config-if)#ip ospf dead-interval 45

Question #1319

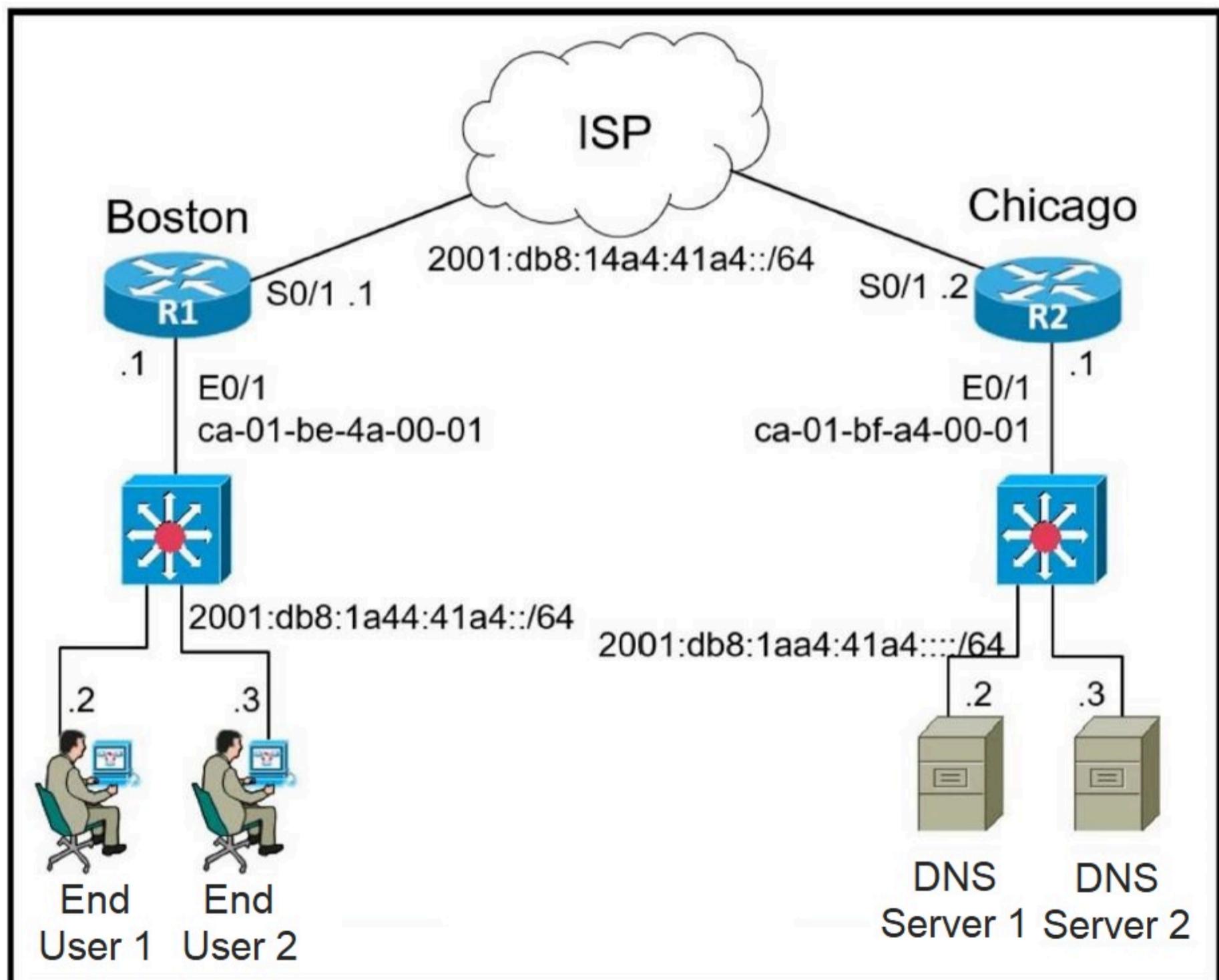
Topic 1

What is a characteristic of an SSID in wireless networks?

- A. allows easy file sharing between endpoints
- B. identifies a wireless network
- C. eliminates network piggybacking
- D. requires the use of PoE for functionality

Question #1320

Topic 1



Refer to the exhibit. The IPv6 address for the LAN segment on router R1 must be configured using the EUI-64 format. When configured which ipv6 address is produced by the router?

- A. 2001:db8:1a44:41a4:C081:BFFF:FE4A:1
- B. 2001:db8:1a44:41a4:C801:BEFF:FE4A:1
- C. 2001:db8:1a44:41a4:4660:592F:FE65:1
- D. 2001:db8:1a44:41a4:C800:BAFE:FF00:1

Question #1321

Topic 1

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

- A. It continuously attempts to resolve the URL until the command is cancelled.
- B. It initiates a ping request to the URL.
- C. It prompts the user to specify the desired IP address.
- D. It attempts to query a DNS server on the network.

Question #1322

Topic 1

How does MAC learning function?

- A. overwrites the known source MAC address in the address table
- B. enabled by default on all VLANs and interfaces
- C. protects against denial of service attacks
- D. forwards frames to a neighbor port using CDP

Question #1323

Topic 1

DRAG DROP

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

contains a conductor, bedding, and sheathing

contains a core, cladding, and coating

affected by electrical and magnetic interference

comprised of insulated glass strands

cooper

single-mode fiber

Question #1324

Topic 1

How does MAC learning function?

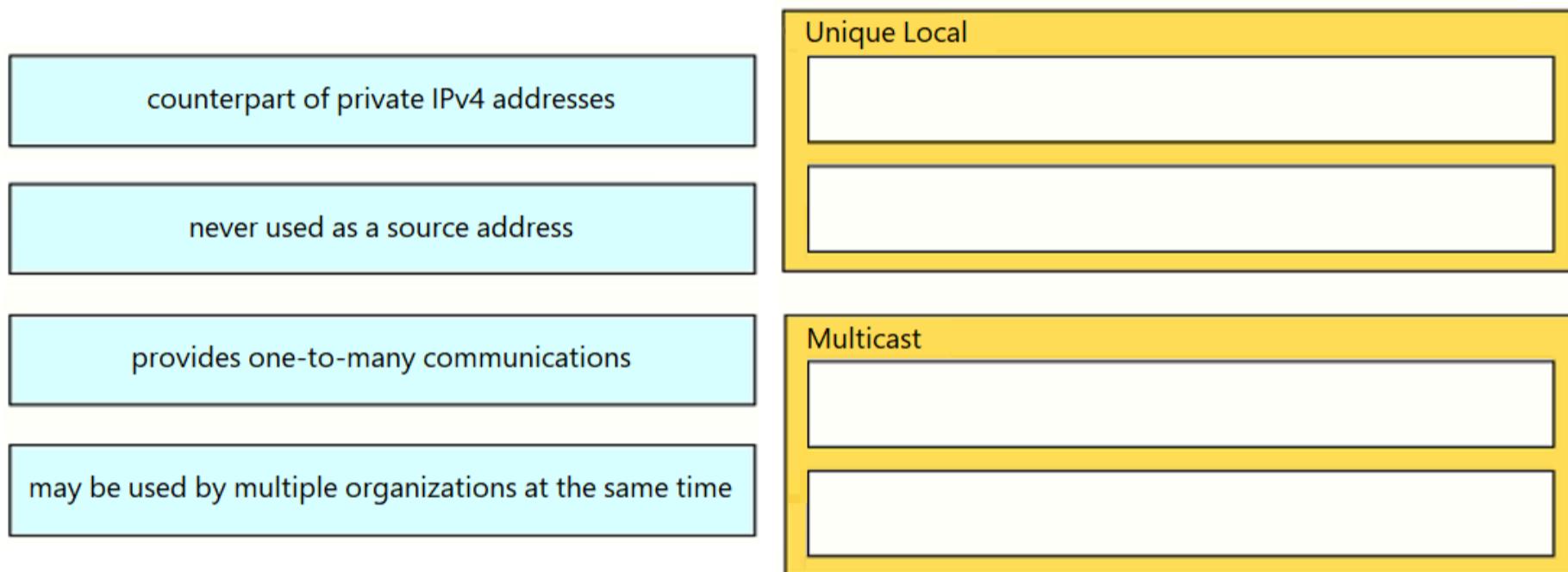
- A. sends a retransmission request when a new frame is received
- B. enabled by default on all VLANs and interfaces
- C. populates the ARP table with the egress port
- D. protects against denial of service attacks

Question #1325

Topic 1

DRAG DROP

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



Question #1326

Topic 1

What is a characteristic of frame switching?

- A. performs a lookup to learn the destination interface
- B. disabled by default on all interfaces and VLANs
- C. buffers and forwards frames with less than 5 CRCs
- D. protects against denial of service attacks

Question #1327

DRAG DROP

- Drag and drop the commands from the left onto the destination interfaces on the right. Not all commands are used.

Answer Area

uses templates to implement QoS configuration

ability to boost a wi-fi signal

requires a special adapter for PoE

supplies user connection data within a device group

configurable as a workgroup bridge

Access Point

Wireless LAN Controller

Question #1328

What is a function of a Next-Generation IPS?

- A. It analyzes and mitigates observed vulnerabilities in a network.
- B. It serves as a controller within a controller-based network
- C. It integrates with a RADIUS server to enforce Layer 2 device authentication rules
- D. It makes forwarding decisions based on learned MAC addresses

Question #1329

DRAG DROP

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

Answer Area

is affected by electrical and magnetic interference

is ideal over longer distances with little loss of integrity

is comprised of shielded and unshielded twisted pairs

transmits signals using pulses of light



Question #1330

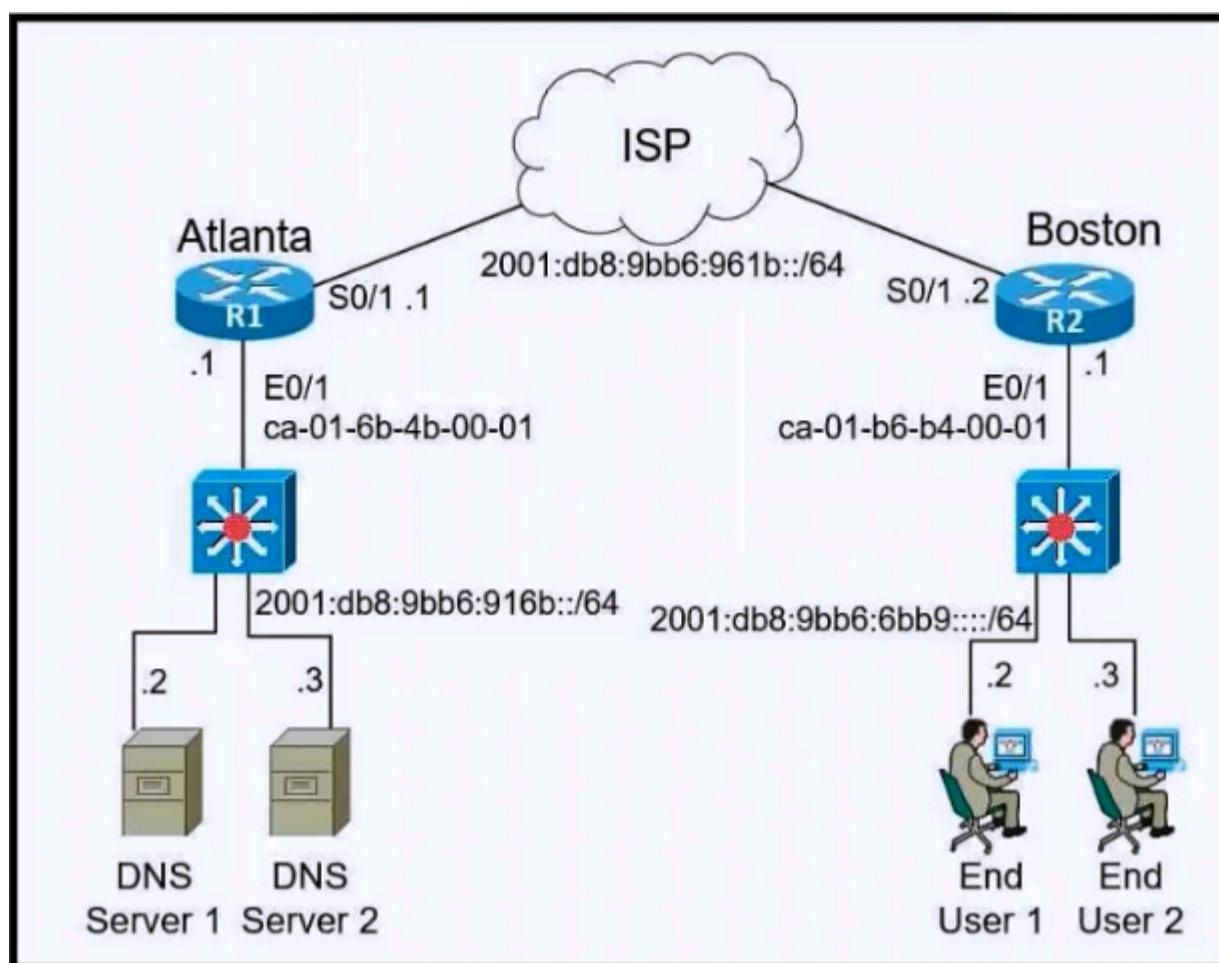
Topic 1

What is a characteristic of encryption in wireless networks?

- A. prevents intercepted data from being easily read
- B. uses a unidirectional handshake for authentication
- C. intercepts data threats before they attack a network
- D. uses integrity checks to identify forgery attacks

Question #1331

Topic 1



Refer to the exhibit. The IPv6 address for the LAN segment on router R2 must be configured using the EUI-64 format. When configured which ipv6 address is produced by the router?

- A. 2001:db8:9bb6:6bb9:C081:B6FF:FF4B:1
- B. 2001:db8:9bb6:6bb9:C001:6BFE:FF01:1
- C. 2001:db8:9bb6:6bb9:4679:824F:FE88:1
- D. 2001:db8:9bb6:6bb9:C801:B6FF:FEB8:1

Question #1332

Topic 1

What is a characteristic of a Layer 2 switch?

- A. tracks the number of active TCP connections
- B. maintains stateful transaction information
- C. filters based on a transport layer protocol
- D. supports segmentation using tagging protocols

Question #1333

Topic 1

Which interface is used to send traffic to the destination network?

- D 10.47.114.119/29 [90/6451] via F0/2
- D 10.47.114.119/29 [90/52201] via F0/20
- R 10.47.114.119/29 [120/9] via F0/12
- R 10.47.114.119/29 [120/10] via F0/10

- A. F0/2
- B. F0/20
- C. F0/12
- D. F0/10

Question #1334

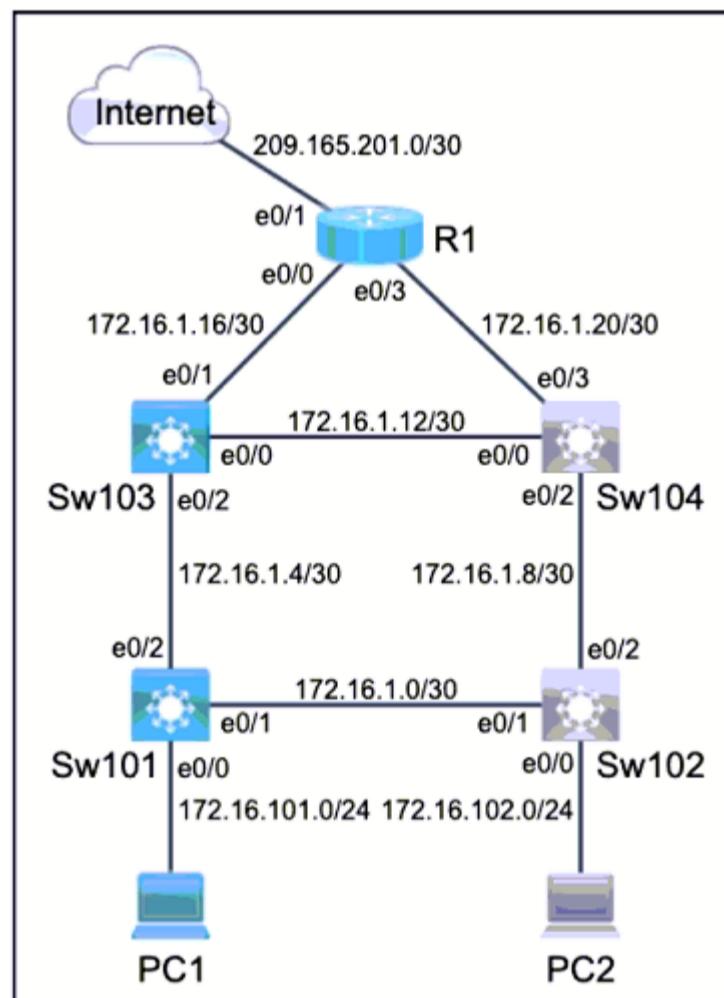
SIMULATION

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.
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Topology



Tasks

Refer to the topology. All physical cabling is in place. Configure local users accounts, modify the Named ACL (NACL), and configure DHCP Snooping. The current contents of the NACL must remain intact.

1. Configure a local account on Sw103 with telnet access only on virtual ports 0-4. Use the following information:

- Username: devnet
- Password: access8cli
- Algorithm type: SHA256
- Privilege level: Exec mode

2. Using the minimum number of ACEs, modify the existing NACL "INTERNET_ACL" to control network traffic destined for the Internet, and apply the ACL on R1:

- Allow HTTPS from 172.16.0.0/16
- Allow Telnet only for VLAN 101
- Restrict all other traffic and log the ingress interface, source MAC address, the packet's source and destination IP addresses, and ports

3. Configure Sw101:

- Enable DHCP Snooping for VLAN 101
- Disable DHCP Option-82 data insertion
- Enable DHCP Snooping MAC address verification

Question #1335

Topic 1

Which Rapid PVST+ feature should be configured on a switch port to immediately send traffic to a connected server as soon as it is active?

- A. portfast
- B. uplinkfast
- C. BPDU guard
- D. loop guard

Question #1336

Topic 1

DRAG DROP

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

Answer Area

publicly routable in the same way as IPv4 addresses

provides one-to-many communications

has a unicast source sent to a group

routable and reachable via the Internet

Global Unicast Address

Multicast

Question #1337

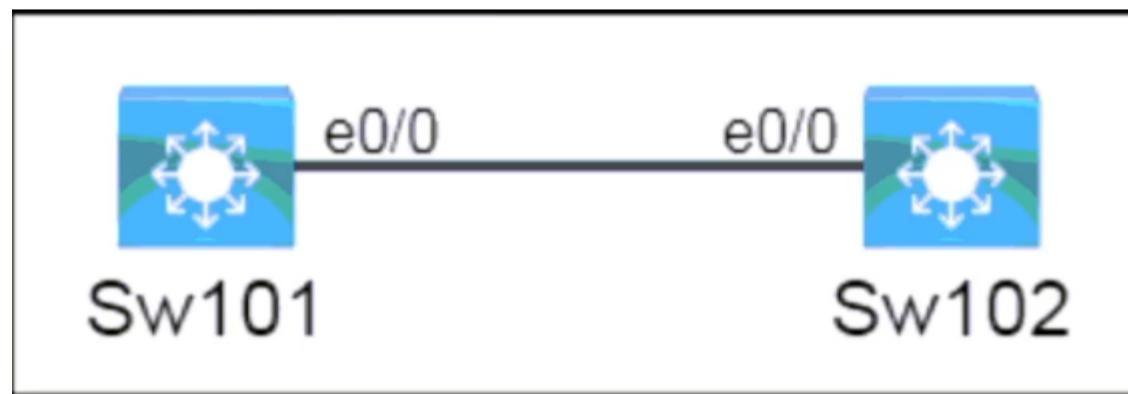
SIMULATION

Guidelines

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Topology



Tasks

All physical cabling is in place. A company plans to deploy 64 new sites. The sites will utilize both IPv4 and IPv6 networks.

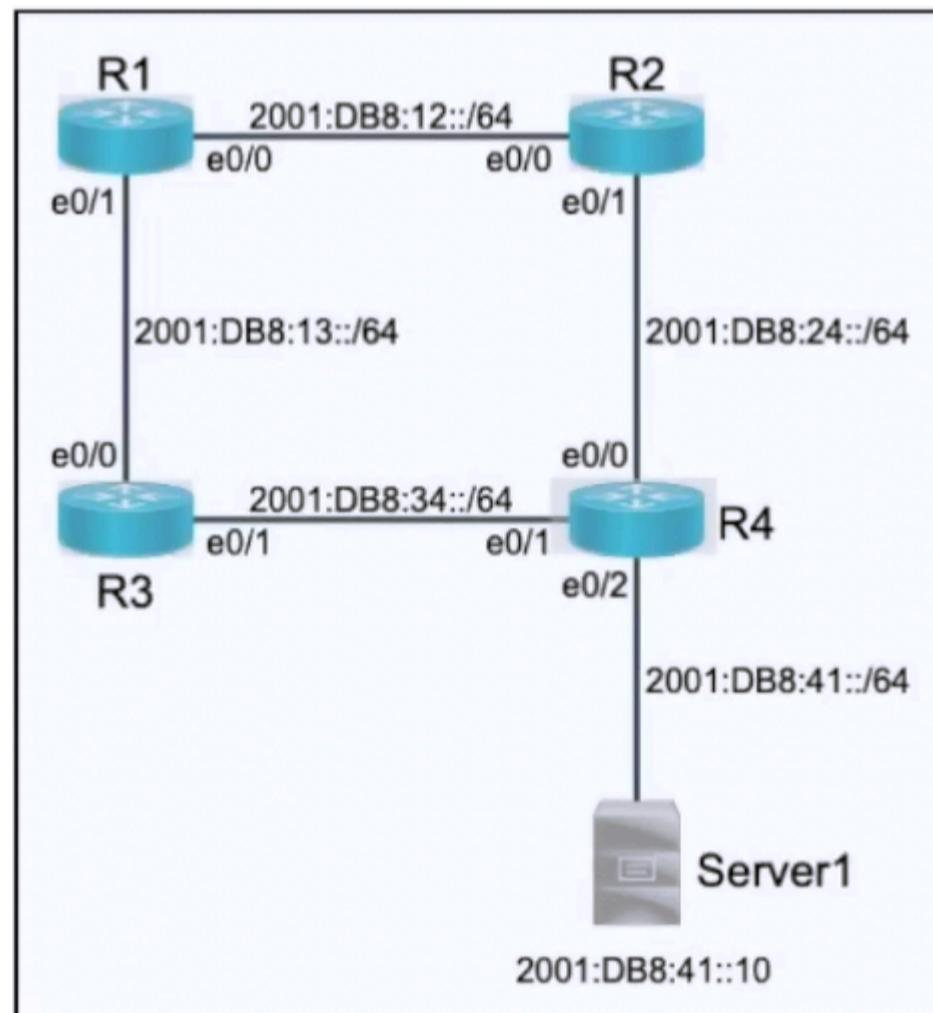
1. Subnet 10.30.64.0/19 to meet the subnet requirements and maximize the number of hosts
 - Using the second subnet
 - Assign the first usable IP address to e0/0 on Sw101
 - Assign the last usable IP address to e0/0 on Sw102
2. Subnet 2001:db8::/56 to meet the subnet requirements and maximize the number of hosts
 - Using the second subnet
 - Assign an IPv6 GUA using a unique 64-Bit interface identifier on e0/0 on Sw101
 - Assign an IPv6 GUA using a unique 64-Bit interface identifier on e0/0 on Sw102

Question #1338

SIMULATION**Guidelines**

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Topology**Tasks**

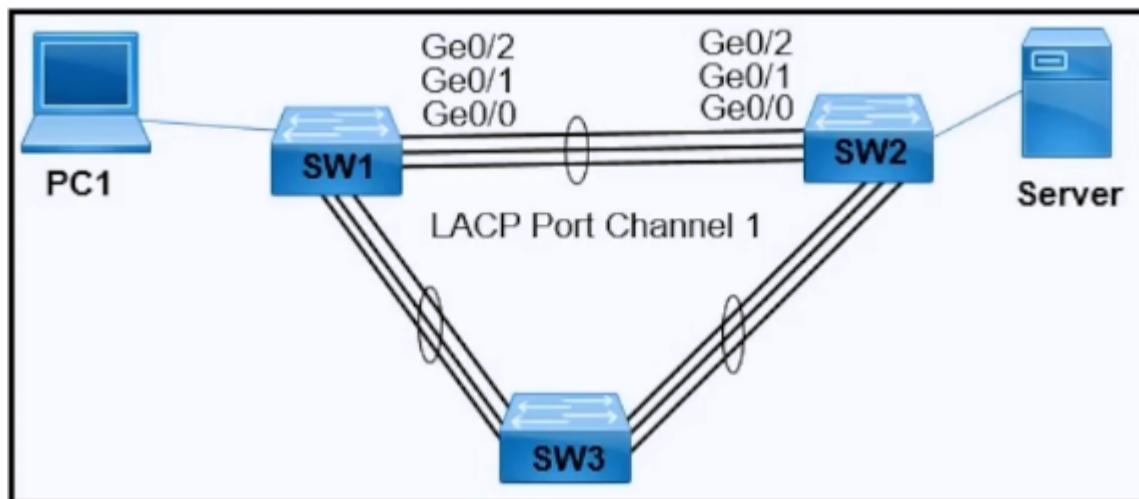
All physical cabling is in place. Configurations should ensure that connectivity is established end-to-end.

1. Configure a route on R1 to ensure that R1 prefers R2 to reach the 2001:db8:41::/64 network

2. Configure a floating route on R1, and ensure that R1 uses R3 to reach the 2001 :db8:41::/64 network if the connection between R1 and R2 is down
3. Ping and traceroute should be working

Question #1339

Topic 1



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

- A. SW2# configure terminal -


```
SW2(config)# interface port-channel 4
SW2(config-if)# port-channel min-links 2
```
- B. SW2# configure terminal -


```
SW2(config)# interface port-channel 4
SW2(config-if)# lacp port-priority 32000
```
- C. SW2# configure terminal -


```
SW2(config)# interface port-channel 4
SW2(config-if)# lacp max-bundle 2
```
- D. SW2# configure terminal -


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

Question #1340

Topic 1

An administrator is configuring a Cisco Catalyst switch so that it will accept management connections only from hosts in the 203.0.113.0/24 network. Other traffic passing through the switch must transit without interruption. Which two configurations must the engineer apply to the router? (Choose two.)

- A. interface range vlan 1 - 4094


```
ip access-group Management out
```
- B. line vty 0 15


```
access-class Management in
```
- C. ip access-list standard Management

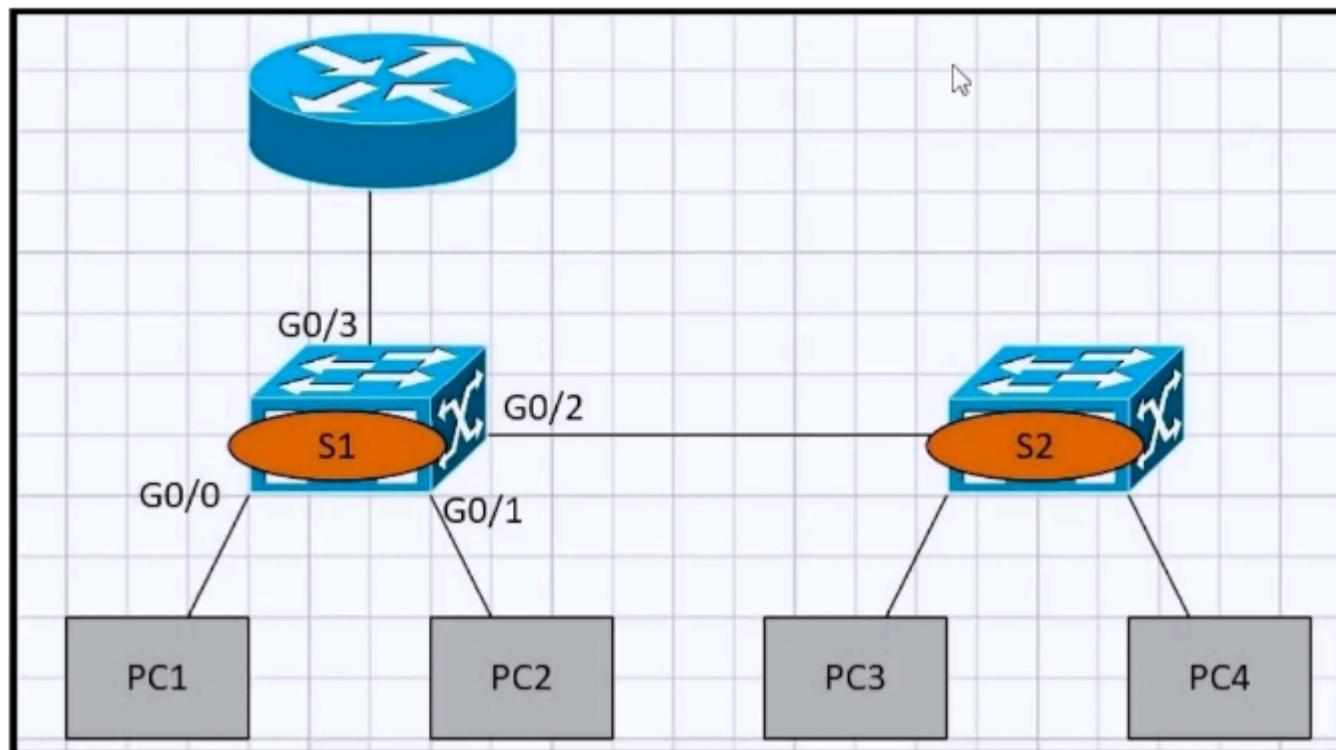

```
permit 203.0.113.0 0.0.0.255
```
- D. ip access-list standard Management


```
permit 203.0.113.0 255.255.255.0
```
- E. ip access-list extended Management


```
permit tcp any range 22 23 203.0.113.0 0.0.0.255
```

Question #1341

Topic 1



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

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

Question #1342

Topic 1

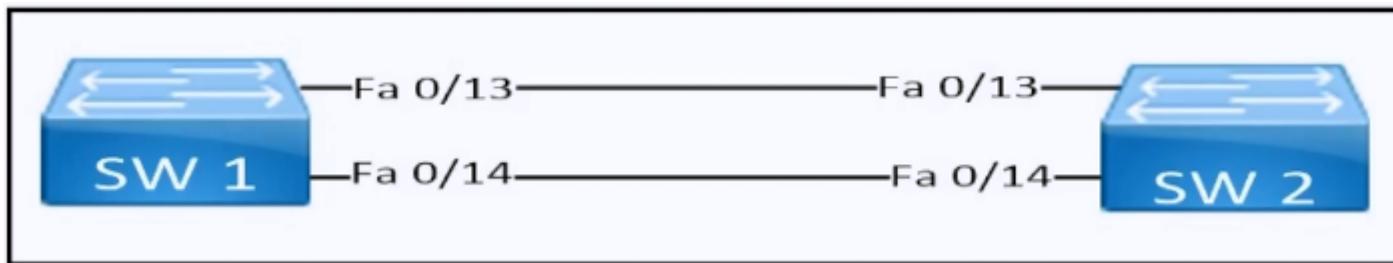
Which interface condition is occurring in this output?

```
R30# show interface fa0/0
FastEthernet0/0 is up, line protocol is up
Hardware is DEC21140, address is ca02.7788.0000 (bia ca02.7788.0000)
Description: madrid_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)
Half-duplex, 100 Mb/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 00:00:18
Input queue: 0/300/0/0 (size/max/drops/flushes); Total output drops: 0
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
7331 packets input, 7101162 bytes
Received 267 broadcasts (0 IP multicasts)
35 runts, 0 giants, 0 throttles
0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
0 watchdog
0 input packets with dribble condition detected
3927 packets output, 1440403 bytes, 0 underruns
0 output errors, 480 collisions, 0 interface resets
0 unknown protocol drops
0 babbles, 0 late collision, 0 deferred
0 lost carrier, 0 no carrier
0 output buffer failures, 0 output buffers swapped out
```

- A. duplex mismatch
- B. high throughput
- C. bad NIC
- D. queueing

Question #1343

Topic 1



Refer to the exhibit. Which set of commands must be applied to the two switches to configure an LACP Layer 2 EtherChannel?

- A. SW1(config)#interface range f0/13 -14
SW1(config-if-range)#channel-group 1 mode auto

SW2(config)#interface range f0/13 -14
SW2(config-if-range)#channel-group 1 mode passive
- B. SW1(config)#interface range f0/13 -14
SW1(config-if-range)#channel-group 1 mode desirable

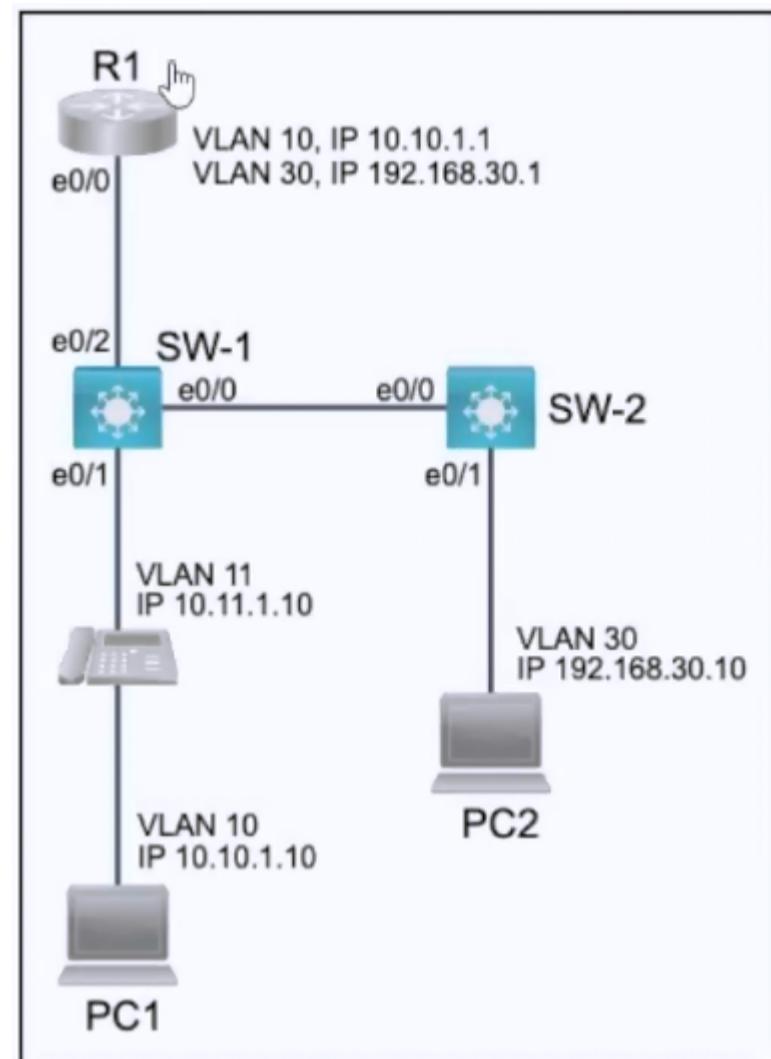
SW2(config)#interface range f0/13 -14
SW2(config-if-range)#channel-group 1 mode passive
- C. SW1(config)#interface range f0/13 -14
SW1(config-if-range)#channel-group 1 mode on

SW2(config)#interface range f0/13 -14
SW2(config-if-range)#channel-group 1 mode passive
- D. SW1(config)#interface range f0/13 -14
SW1(config-if-range)#channel-group 1 mode active

SW2(config)#interface range f0/13 -14
SW2(config-if-range)#channel-group 1 mode passive

Question #1344

SIMULATION



R1 has been pre-configured with all the necessary commands. All physical cabling is in place and verified. Connectivity to the end devices must be configured.

1. Configure SW-1 switch port 0/1 to carry traffic for the Cisco IP phone and PC
2. Configure SW-2 E0/1 to carry traffic for PC2
3. Configure VLAN 10 with the name "Engineering" on SW-1
4. Configure the link between SW-1 and SW-2 to use the vendor neutral neighbor discovery protocol
5. Configure the link on SW-1 to R1 so that it does not allow the Cisco neighbor discovery protocol to pass

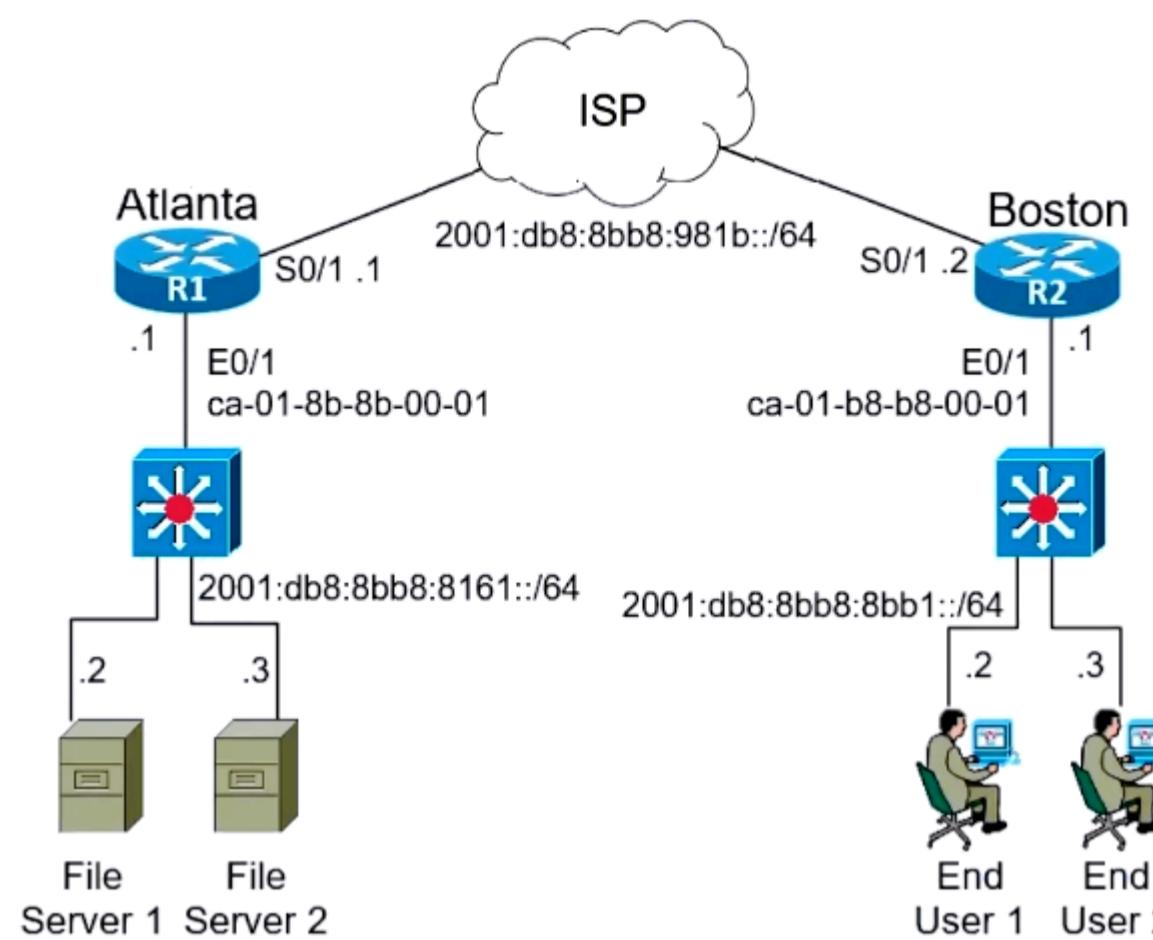
Question #1345

Topic 1

How is noise defined in Wi-Fi?

- A. measured difference between the desired Wi-Fi signal and an interfering Wi-Fi signal
- B. any interference that is not Wi-Fi traffic that degrades the desired signal
- C. signals from other Wi-Fi networks that interfere with the local signal
- D. ratio of signal-to-noise rating supplied by the wireless device

Question #1346



Refer to the exhibit. The IPv6 address for the LAN segment on router R2 must be configured using the EUI-64 format. When configured which ipv6 address is produced by the router?

- A. 2001:db8:8bb8:8bb1:C081:B8FF:FF4B:1
- B. 2001:db8:8bb8:8bb1:C001:8BFE:FF01:1
- C. 2001:db8:8bb8:8bb4:6792:43FF:EF87:1
- D. 2001:db8:8bb8:8bb1:C801:B8FF:FEB8:1

Question #1347

What is a characteristic of frame switching?

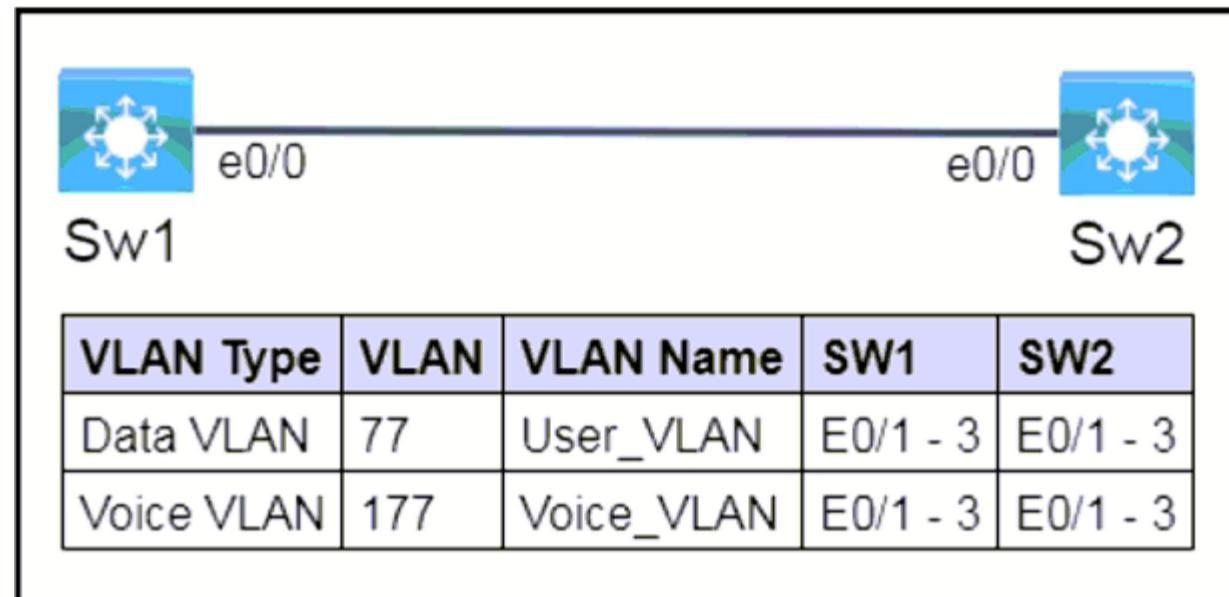
- A. floods unknown destinations to all ports except the receiving port
- B. inspects and drops frames from unknown destinations
- C. forwards frames to a neighbor port using CDP
- D. protects against denial of service attacks

Question #1348

SIMULATION**Guidelines**

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Topology**Tasks**

All physical cabling is in place and verified. Connectivity for the Switches on ports E0/1, E0/2, and E0/3 must be configured and available for voice and data capabilities.

1. Configure Sw1 and Sw2 with both VLANS, naming them according to the VLAN Name provided in the topology.
2. Configure the E0/1, E0/2, and E0/3 ports on both switches for both VLANS and ensure that Cisco IP phones and PCs pass traffic.
3. Configure Sw1 and Sw2 to allow neighbor discovery via the vendor-neutral protocol on e0/0.

Question #1349

Topic 1

What are two reasons to implement DHCP in a network? (Choose two.)

- A. manually control and configure IP addresses on network devices
- B. control the length of time an IP address is used by a network device
- C. reduce administration time in managing IP address ranges for clients
- D. dynamic control over the best path to reach an IP address
- E. access a website by name instead of by IP address