

## 200-125 Dumps

### CCNA Cisco Certified Network Associate CCNA (v3.0)

<https://www.certleader.com/200-125-dumps.html>



**NEW QUESTION 1**

Which Type of ipv6 unicast ip address is reachable across the internet ?

- A. Unique Local
- B. Compatible
- C. Link Local
- D. Global

**Answer:** D

**NEW QUESTION 2**

Which three encapsulation layers in the OSI model are combined into the TCP/IP application layer? (Choose three)

- A. Session
- B. transport
- C. presentation
- D. application
- E. data-link
- F. network

**Answer:** ACD

**NEW QUESTION 3**

Drag the cable type on the left to the purpose for which is it best suited on the right. (Not all options are used.)

crossover	switch access port to router
null modem	switch to switch
straight-through	PM COM port to switch
rollover	
9-25 pin serial	

**Answer:**

**Explanation:** Switch to router : rollover Switch to switch : crossover PM Com port: 9 - 25 pin

**NEW QUESTION 4**

Which protocol is a Cisco proprietary implementation of STP?

- A. CST
- B. RSTP
- C. MSTP
- D. PVST+

**Answer:** D

**NEW QUESTION 5**

Which command is used to show the interface status of a router?

- A. show interface status
- B. show ip interface brief
- C. show ip route
- D. show interface

**Answer:** B

**NEW QUESTION 6**

Which feature is configured by setting a variance that is at least two times the metric?

- A. equal cost load balancing
- B. unequal cost load balancing
- C. Path selection
- D. path count

**Answer:** B

**NEW QUESTION 7**

Which type of MAC address is aged automatically by the switch?

- A. automatic
- B. manual
- C. dynamic
- D. static

**Answer:** C

**NEW QUESTION 8**

Which command can you use to test whether a switch supports secure connections and strong authentication?

- A. Switch>ssh -v 1-I admin 10.1.1.1
- B. Router#ssh -v1 -I admin 10.1.1.1
- C. Router>ssh -V2 -I admin 10.1.1.1
- D. Switch#ssh -I admin 10.1.1.1

**Answer:** C

**NEW QUESTION 9**

In which byte of an IP packet can traffic be marked ?

- A. the Tos byte
- B. the Qos byte
- C. the Cos byte
- D. the Dscp byte

**Answer:** A

**Explanation:** Reference:

<http://flylib.com/books/2/686/1/html/2/images/1587051990/graphics/13fig01.gif>

**NEW QUESTION 10**

Which statement about EIGRP on IPv6 device is true?

- A. It is configured directly on the interface
- B. the configuration uses secondary ip address
- C. the neighbors of each device are directly configured
- D. the configuration uses process numbers

**Answer:** A

**Explanation:**

<http://www.cisco.com/c/en/us/support/docs/ip/enhanced-interior-gateway-routing-protocol-eigrp/113267-eigrp-i>

**NEW QUESTION 10**

Which WAN topology is most appropriate for a centrally located server farm with several satellite branches?

- A. star
- B. hub and spoke
- C. point-to-point
- D. full mesh

**Answer:** B

**Explanation:**

In a Hub-and-spoke Site-to-Site Wide Area Network (WAN) network topology, one physical site act as Hub (Example, Main Office), while other physical sites act as spokes. Spoke sites are connected to each other via Hub site. In Huband-spoke Wide Area Network (WAN) topology, the network communication between two spokes always travels through the hub.

**NEW QUESTION 11**

How does NAT overloading provide one-to-many address translation?

- A. it uses a pool of addresses.
- B. it converts IPv4 addresses to unused IPv6 addresses.

- C. it assigns a unique TCP/UDP port to each session.
- D. it uses virtual MAC address and virtual IP addresses.

**Answer: C**

**NEW QUESTION 13**

which command can you enter to troubleshoot the failure of address assignment ?

- A. sh ip dhcp database
- B. sh ip dhcp pool
- C. sh ip dhcp import
- D. sh ip dhcp server statistics

**Answer: B**

**NEW QUESTION 18**

Which VTP mode prevents you from making changes to VLANs?

- A. server
- B. off
- C. client
- D. transparent

**Answer: C**

**NEW QUESTION 21**

Which technology can provide security when connection multiple sites across the internet?

- A. EBGP
- B. DMVPN
- C. Site-to-site vpn
- D. MPLS

**Answer: B**

**NEW QUESTION 23**

which technology supports multiple dynamic secure connections an unsecure transport network ?

- A. DMVPN
- B. VPN
- C. Site-to-site VPN
- D. client VPN

**Answer: A**

**NEW QUESTION 25**

Which keyword enables an HSRP router to take the active role immediately when it comes online?

- A. IP address
- B. Priority
- C. Preempt
- D. Version

**Answer: C**

**NEW QUESTION 30**

Which address class includes network 191.168.0.1/27?

- A. Class C
- B. Class B
- C. Class D
- D. Class A

**Answer: B**

**NEW QUESTION 33**

```

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

Gateway of last resort is 192.168.14.4 to network 0.0.0.0

C    192.168.12.0/24 is directly connected, FastEthernet0/0
C    192.168.13.0/24 is directly connected, FastEthernet0/1
C    192.168.14.0/24 is directly connected, FastEthernet1/0
O    192.168.10.0/24 is variably subnetted, 3 subnets, 3 masks
O    192.168.10.0/24 [110/2] via 192.168.14.4, 00:02:01, FastEthernet1/0
O    192.168.10.32/27 [110/11] via 192.168.13.3, 00:00:52, FastEthernet0/1
O    192.168.0.0/16 [110/2] via 192.168.15.5, 00:05:01, FastEthernet0/1
D    192.168.10.1/32 [90/51778] via 192.168.12.2, 00:03:44, FastEthernet0/0
O*E2 0.0.0.0/0 [110/1] via 192.168.14.4, 00:00:10, FastEthernet1/0
    
```

refer to the exhibit , on R1, which routing protocol is in use on the route to 192.168.10.1?

- A. EIGRP
- B. OSPF
- C. RIP
- D. BGP

**Answer: A**

**NEW QUESTION 38**

which statement about snmpv2 is true ?

- A. it requires password at least eight characters in length
- B. it requires passwords to be encrypted
- C. its privacy algorithms use md5 encryption by default
- D. its authentic and privacy algorithms are enabled without default values

**Answer: D**

**NEW QUESTION 39**

Which two options are fields in an ethernet frame ? choose two

- A. destination ip address
- B. source ip address
- C. type
- D. frame check sequence
- E. header

**Answer: CD**

**NEW QUESTION 42**

Which Two options are features of the extended ping command?

- A. it can send packets from a specified interface or ip address
- B. it can resolve the destination host name
- C. it can ping multiple hosts at the same time
- D. it can count the number of hops to the remote host
- E. it can send a specified number of packets

**Answer: AE**

**NEW QUESTION 44**

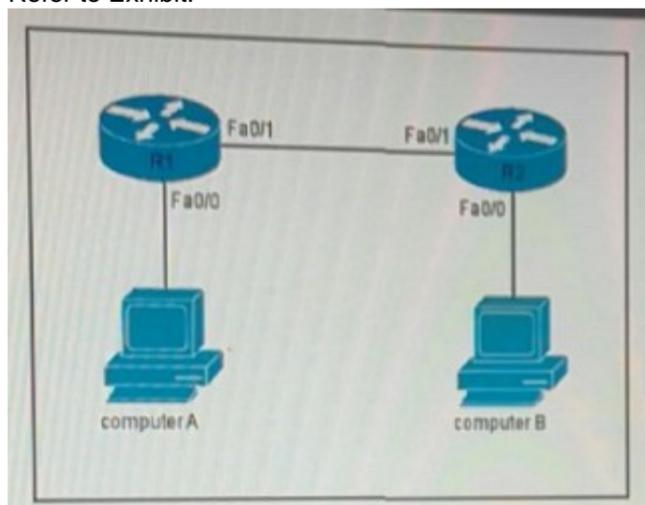
If you configure syslog messages without specifying the logging trap level, which log messages will the router send?

- A. error conditions only
- B. warning and error conditions only
- C. normal but significant conditions only
- D. all levels except debugging
- E. informational messages only

**Answer: E**

**NEW QUESTION 47**

Refer to Exhibit.



If Computer A is sending traffic to computer B, which option is the source ip address when a packet leaves R1 on interface F0/1?

- A. IP address of the R2 interface F0/1
- B. Ip address of computer B
- C. Ip address of R1 interface F0/1
- D. Ip address of Computer A

**Answer: C**

**NEW QUESTION 51**

Which two options describe benefits of aggregated chassis technology (Choose 2)?

- A. it reduces management overhead.
- B. switches can be located anywhere regardless of their physical distance from one another.
- C. it requires only one IP address per VLAN.
- D. it requires only Three IP addresses per VLAN.
- E. it supports HSRP VRRP and GLBP.
- F. it support redundant configuration files.

**Answer: AC**

**NEW QUESTION 53**

To enable router on a stick on a router subinterface, which two steps must you perform ? choose two

- A. configure full duplex and speed
- B. configure a default to route traffic between subinterfaces
- C. configure the subinterface with an ip address
- D. configure encapsulation dot1q
- E. configure an ip route to the vlan destination network

**Answer: CD**

**NEW QUESTION 56**

which layer of the osi model does PPP perform ?

- A. Layer 2
- B. Layer 3
- C. Layer 5
- D. Layer 1

**Answer: A**

**NEW QUESTION 60**

Which options are requirements for configuring RIPv2 on an IPv4 network router? (Choose two.)

- A. enabling RIP on the router
- B. allowing unicast updates for RIP
- C. enabling RIP authentication
- D. connecting RIP to a WAN interface
- E. enabling automatic route summarrization

**Answer: AB**

**NEW QUESTION 62**

Which type of attack can be mitigated by configuring the default native vlan to be unused ?

- A. switch spoofing
- B. cam table overflow
- C. vlan hopping

D. MAC spoofing

**Answer: C**

**NEW QUESTION 65**

Which configuration command can you apply to a router so that its local interface becomes active if all other routers in the group fail?

- A. Router(config)#standby 1 preempt
- B. No additional configuration is required
- C. Router(config)#standby 1 Priority 250
- D. Router(config)#standby 1 track Ethernet

**Answer: A**

**NEW QUESTION 66**

Which WAN topology provides a direct connection from each site to all other sites on the network?

- A. single-homed
- B. full mesh
- C. point-to-point
- D. hub-and-spoke

**Answer: B**

**NEW QUESTION 70**

which feature must you enable to distribute vlans automatically across multiple switch ?

- A. configure NTP
- B. Configure the native VLAN
- C. Define Each vlan
- D. configure VTP

**Answer: D**

**NEW QUESTION 74**

Which 2 statements about extended traceroute command is true?

- A. it can send packets from specified interface or ip address
- B. it can use a specified TTL value.
- C. it can validate the reply data.
- D. it can use a specified TOS.
- E. it can repeated automatically to a specified interval.

**Answer: AB**

**Explanation:** Reference:

[http://www.cisco.com/c/en/us/support/docs/ip/routing-information-protocol-rip/13730-extpingtrace.html#ext\\_troute](http://www.cisco.com/c/en/us/support/docs/ip/routing-information-protocol-rip/13730-extpingtrace.html#ext_troute)

“This table lists the traceroute command field descriptions:

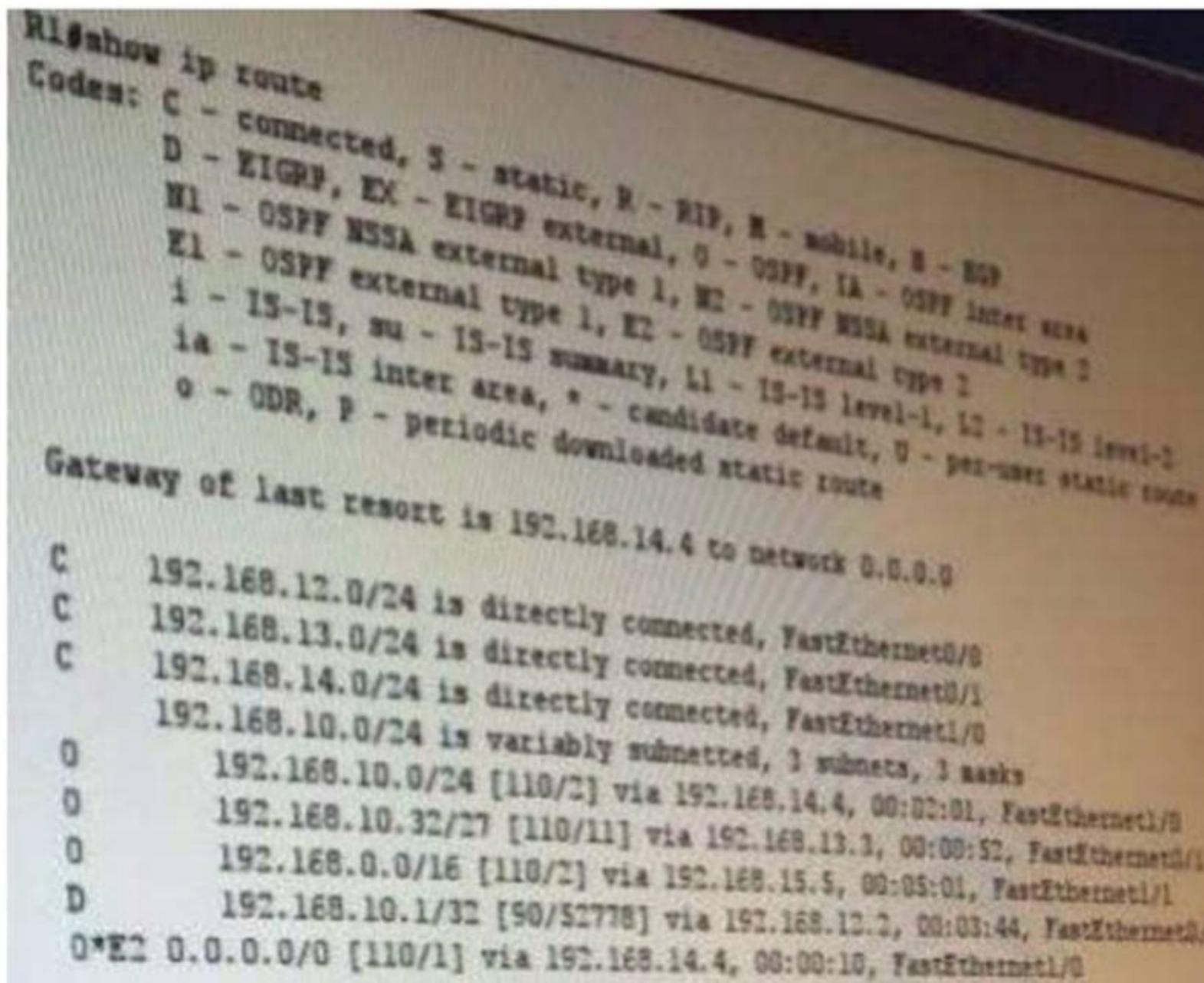
Source address: The interface or IP address of the router to use as a source address for the probes. The router normally picks the IP address of the outbound interface to use.

Minimum Time to Live [1]: The TTL value for the first probes. The default is 1, but it can be set to a higher value to suppress the display of known hops.

Maximum Time to Live [30]: The largest TTL value that can be used. The default is 30. The traceroute command terminates when the destination is reached or when this value is reached.

**NEW QUESTION 79**

Refer to the exhibit.



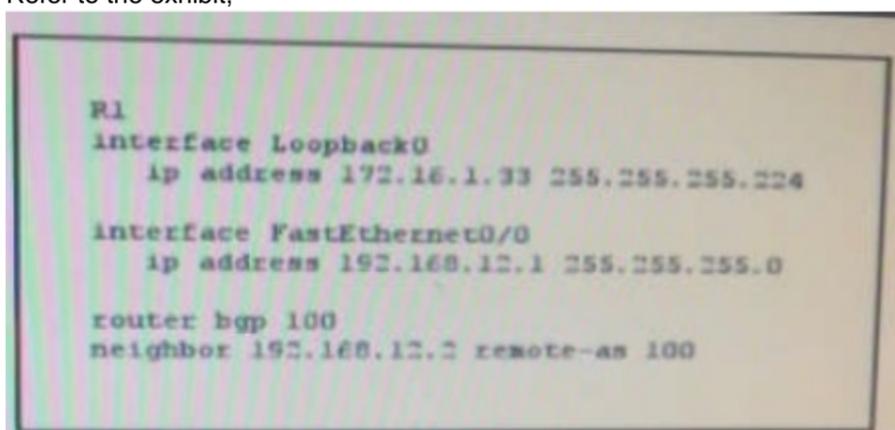
If R1 receives a packet destined to 172.16.1.1, to which IP address does it send the packet ?

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

**Answer: A**

**NEW QUESTION 84**

Refer to the exhibit,



which command do you enter so that R1 advertises the loopback0 interface to the BGP peers?

- A. network 172.16.1.32 mask 255.255.255.224
- B. network 172.16.1.0 0.0.0.0.255
- C. network 172.16.1.32 255.255.255.224
- D. network 172.16.1.33 mask 255.255.255.224
- E. network 172.16.1.32 mask 0.0.0.31
- F. network 172.16.1.32 0.0.0.31

**Answer: A**

**NEW QUESTION 85**

Refer to the exhibit.

```
R1
ipv6 cef

interface FastEthernet0/0
no ip address
ipv6 enable
  ipv6 address 2001:DB8:1::1/64
  ipv6 ospf 1 area 0

ipv6 router ospf 1
  router-id 172.16.1.1
```

After you apply the given configuration to R1, you notice that it failed to enable OSPF. Which action can you take to correct the problem?

- A. Configure a loopback interface on R1
- B. Enable IPv6 unicast routing on R1.
- C. Configure an IPv4 address on interface FO/0.
- D. Configure an autonomous system number on OSPF.

**Answer: C**

**NEW QUESTION 86**

which three options are benefits of using TACACS+ on a device ?

- A. Device administration packets are encrypted in their entirety
- B. it allows the user to remotely access devices from other vendors
- C. it supports access level authorization for commands
- D. it ensures that user activity is untraceable
- E. it allows users to be authenticated against a remote server
- F. it provides a secure accounting facility on the device

**Answer: ACE**

**NEW QUESTION 91**

Which option is the main function of congestion management ?

- A. providing long term storage of buffered data
- B. queuing traffic based on priority
- C. discarding excess traffic
- D. classifying traffic

**Answer: B**

**NEW QUESTION 95**

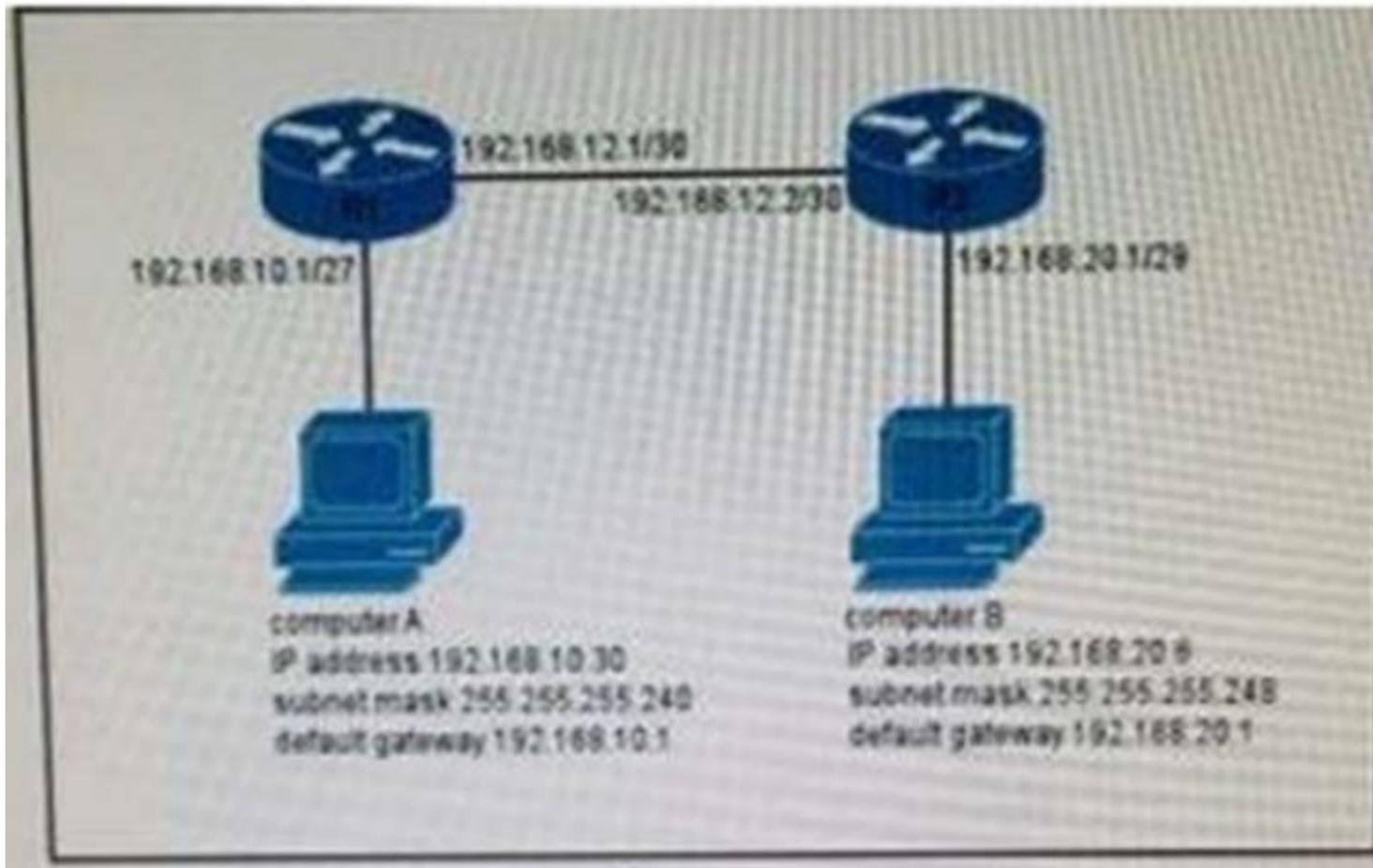
ABPDU guard is configured on an interface that has PortFast Enable. Which state does the interface enter when it receives a BPDU?

- A. Blocking.
- B. Shutdown.
- C. Listening.
- D. Errdisable.

**Answer: D**

**NEW QUESTION 97**

Refer to the exhibit,



you determine that Computer A cannot ping Computer B.  
Which reason for the problem is most likely true?

- A. The Subnet mask for Computer A is incorrect
- B. The subnet mask for computer B is incorrect
- C. The default gateway address for Computer A is incorrect.
- D. The default gateway address for computer B is incorrect.

**Answer:** A

**Explanation:**

255.255.255.224 =/27

**NEW QUESTION 99**

Which function does traffic shaping perform?

- A. it buffers traffic without queuing it
- B. it queues traffic without buffering it
- C. it drops packets to control the output rate
- D. it buffers and queues excess packets

**Answer:** D

**NEW QUESTION 104**

which address prefix does OSPFv3 use when multiple IPv6 address are configured on a single interface ?

- A. all prefix on the interface
- B. the prefix that the administrator configure for OSPFv3 use
- C. the lowest prefix on the interface
- D. the highest prefix on the interface

**Answer:** A

**Explanation:**

Reference:

[http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute\\_ospf/configuration/15-sy/iro-15-sy-book/ip6-routeospfv3.html#GUID-05F3F09C-FE3E-41D6-9845-111FB17AD030](http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute_ospf/configuration/15-sy/iro-15-sy-book/ip6-routeospfv3.html#GUID-05F3F09C-FE3E-41D6-9845-111FB17AD030)

"In IPv6, you can configure many address prefixes on an interface. In OSPFv3, all address prefixes on an interface are included by default. You cannot select some address prefixes to be imported into OSPFv3; either all address prefixes on an interface are imported, or no address prefixes on an interface are imported."

**NEW QUESTION 105**

Refer to exhibit.

```
Router(config)# interface gigabitEthernet 0/1
Router(config)# ip address 192.168.1.1 255.255.255.0
Router(config)# speed 100
Router(config)# duplex full
```

Which command can you enter to verify link speed and duplex setting on the interface?

- A. router#show ip protocols
- B. router#show startup-config
- C. router#show line
- D. router#show interface gig 0/1

**Answer: D**

**NEW QUESTION 106**

Which value is used to determine the active router in an HSRP default configuration ?

- A. router tracking number
- B. router IP address
- C. router priority
- D. router loopback address

**Answer: C**

**NEW QUESTION 110**

Under normal operations, cisco recommends that you configure switch ports on which vlan ?

- A. on the default vlan
- B. on the management vlan
- C. on the native vlan
- D. on any vlan except the default vlan

**Answer: D**

**Explanation:** Reference:

<http://www.cisco.com/c/en/us/support/docs/switches/catalyst-6500-series-switches/24330-185.html>

**NEW QUESTION 111**

Which header field is new in IPv6?

- A. Hop Limit
- B. Flow Label
- C. Version
- D. Traffic Class

**Answer: A**

**NEW QUESTION 115**

which six-byte field in a basic ethernet frame must be an individual address ?

- A. FCS
- B. SOF
- C. SA
- D. DA

**Answer: C**

**NEW QUESTION 118**

Which two statements about MPLS are true?

- A. it encapsulates all traffic in an ipv4 header
- B. it provides automatic authentication
- C. it uses labels to separate and forward customer traffic
- D. it can carry multiple protocols, including ipv4 and ipv6
- E. it tags customer traffic using 802.1q

**Answer: CD**

**NEW QUESTION 121**

Which definition of default route is true?

- A. A route that is manually configured.
- B. A route used when a destination route is missing.
- C. A route to the exact /32 destination address
- D. Dynamic route learned from the server.

**Answer: C**

**NEW QUESTION 122**

What is true about Cisco Discovery Protocol ?

- A. it discovers the routers, switches and gateways.
- B. it is network layer protocol
- C. it is physical and data link layer protocol
- D. it is Cisco proprietary protocol

**Answer: D**

**NEW QUESTION 125**

Which feature facilitates the tagging of frames on a specific VLAN?

- A. routing
- B. hairpinning
- C. switching
- D. encapsulation

**Answer: D**

**NEW QUESTION 128**

which option is the correct CIDR notation for 192.168.0.0 subnet 255.255.255.252?

- A. /29
- B. /30
- C. /31
- D. /32

**Answer: B**

**NEW QUESTION 130**

Which networking Technology is currently recognized as the standard for computer networking?

- A. System network architecture
- B. Transmission control protocol/Internet protocol
- C. Open system Interconnect
- D. Open network architecture

**Answer: B**

**NEW QUESTION 132**

When you deploy multilink PPP on your network, where must you configure the group IP Address on each device?

- A. In the global config
- B. Under serial interface
- C. Under the routing protocol
- D. Under the multilink interface

**Answer: D**

**NEW QUESTION 134**

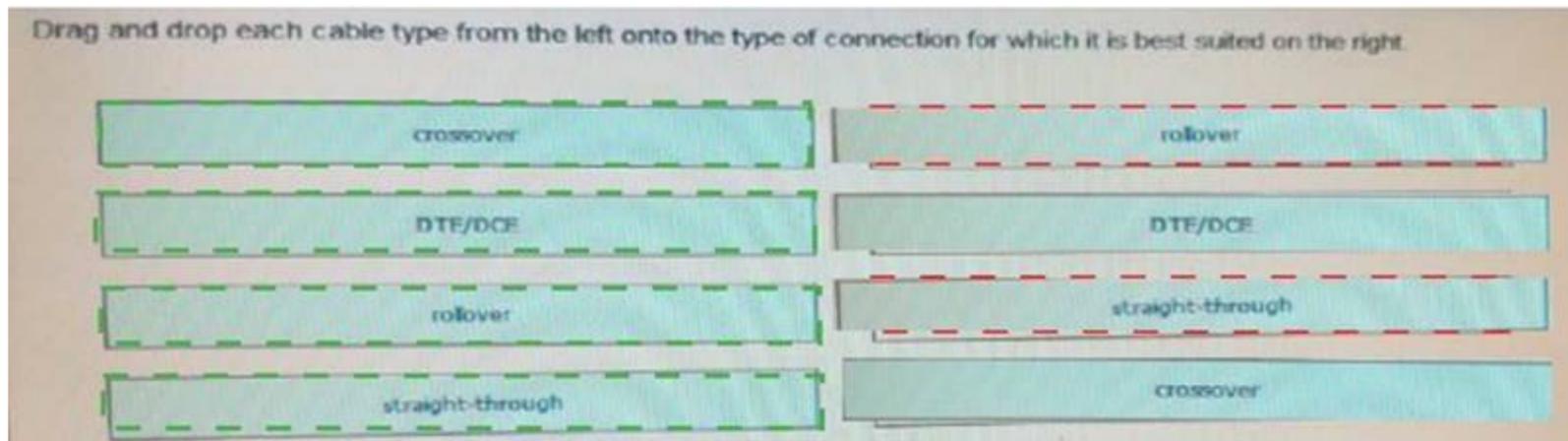
Drag and drop each cable type from the left onto the type of connection for which it is best suited on the right .

Drag and drop each cable type from the left onto the type of connection for which it is best suited on the right .

crossover	console to PC
DTE/DCE	router serial to router serial
rollover	switch to router
straight-through	switch to switch

**Answer:**

**Explanation:**



**NEW QUESTION 138**

Which address block identifies all link-local address

- A. fc00::/7
- B. fc00::/8
- C. fe80::/10

**Answer:** C

**NEW QUESTION 141**

How to trouble DNS issue ( choose two ) ?

- A. Ping a public website IP address.
- B. Ping the DNS Server.
- C. Determine whether a DHCP address has been assigned.
- D. Determine whether the hardware address is correct.
- E. Determine whether the name servers have been configured.

**Answer:** BE

**Explanation:**

Reference: [https://l.facebook.com/l.php?u=http%3A%2F%2Fwww.cisco.com%2Fen%2FUS%2Fdocs%2Finternetworking%2Ftroubleshooting%2Fguide%2Ftr1907.html%23wp1021264&h=ATMT6hWMWkar6G3cbMd8vYoG64obKG4CluxXlmCWtCLencP9vUG0hrC3C0azv18aRsmIsdrKko8ew\\_O6UkUwYCVqgYvxTz3TFquXNKyrnrAa1arE1V4HBFjg4\\_E2gJSawoz2\\_g](https://l.facebook.com/l.php?u=http%3A%2F%2Fwww.cisco.com%2Fen%2FUS%2Fdocs%2Finternetworking%2Ftroubleshooting%2Fguide%2Ftr1907.html%23wp1021264&h=ATMT6hWMWkar6G3cbMd8vYoG64obKG4CluxXlmCWtCLencP9vUG0hrC3C0azv18aRsmIsdrKko8ew_O6UkUwYCVqgYvxTz3TFquXNKyrnrAa1arE1V4HBFjg4_E2gJSawoz2_g)  
Ping the destination by name perform a DNS lookup on the destination

**NEW QUESTION 142**

Which command can you enter to troubleshoot the failure of address assignments?

- A. show ip dhcp pool
- B. show ip dhcp database
- C. show ip dhcp import
- D. clear ip dhcp server statistics

**Answer:** A

**NEW QUESTION 147**

How can you manually configure a switch so that it is selected as the root Switch?

- A. increase the priority number
- B. lower the port priority number
- C. lower the priority number
- D. increase the port priority number

**Answer:** C

**NEW QUESTION 149**

Which two steps must you perform on each device that is configured for ipv4 routing before you implement OSPFv3? (choose two)

- A. configure an autonomous system number
- B. configure a loopback interface
- C. configure a router ID
- D. enable IPv6 on an interface
- E. enable IPv6 unicast routing

**Answer:** CE

**NEW QUESTION 154**

Which function allows EIGRP peers to receive notice of implementing topology changes?

- A. successors
- B. advertised changes
- C. goodbye messages
- D. expiration of the hold timer

**Answer: C**

**NEW QUESTION 156**

Which type of routing protocol operates by exchanging the entire routing information ?

- A. distance vector protocols
- B. link state protocols
- C. path vector protocols
- D. exterior gateway protocols

**Answer: A**

**NEW QUESTION 157**

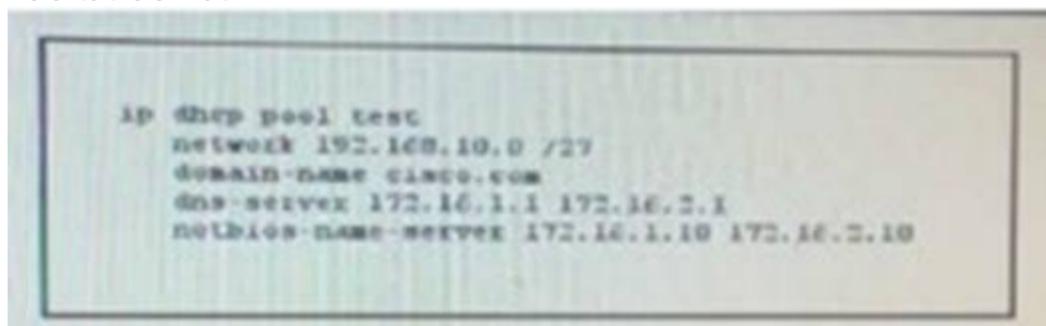
Which statement about upgrading a cisco ios device with TFTP is True ?

- A. The Cisco IOS device must be on the same lan as the TFTP server
- B. The operation is performed in passive mode
- C. The operation is performed in an unencrypted format
- D. The operation is performed in active mode

**Answer: A**

**NEW QUESTION 159**

Refer to the exhibit.



```
ip dhcp pool test
network 192.168.10.0 /27
domain-name cisco.com
dns-server 172.16.1.1 172.16.2.1
no ip dhcp name-server 172.16.1.10 172.16.2.10
```

After you apply the given configuration to a router, the DHCP clients behind the device cannot communicate with hosts outside of their subnet. Which action is most likely to correct the problem?

- A. Configure the dns server on the same subnet as the clients
- B. Activate the dhcp pool
- C. Correct the subnet mask
- D. configure the default gateway

**Answer: D**

**NEW QUESTION 163**

Which MAC protocol sets a random timer to reattempt communication?

- A. IEEE 802.1x
- B. RARP
- C. CSMA/CA
- D. CSMA/CD

**Answer: D**

**NEW QUESTION 167**

A router has learned three possible routes that could be used to reach a destination network. One route is from EIGRP and has a composite metric of 07104371. Another route is from OSPF with a metric of 782. The last is from RIPv2 and has a metric of 4. Which route or routes will the router install in the routing table?

- A. the EIGRP route
- B. the OSPF route
- C. the RIPv2 route
- D. all three routes
- E. the OSPF and RIPv2 routes

**Answer: A**

**NEW QUESTION 169**

Where does the configuration reside when a helper address is configured to support DHCP ?

- A. on the switch trunk interface.
- B. on the router closest to the client.

- C. on the router closest to the server.
- D. on every router along the path.

**Answer:** B

**NEW QUESTION 171**

which major ipv6 address type is supported in ipv4 but rarely used ?

- A. Broadcast
- B. multicast
- C. unicast
- D. anycast

**Answer:** B

**NEW QUESTION 176**

Exhibit:

```

R1
interface FastEthernet0/0
 ip address 172.16.10.1 255.255.255.224

interface FastEthernet0/1
 ip address 172.16.10.33 255.255.255.240

router rip
 network 172.16.0.0
 no auto-summary
    
```

After you apply the given configuration to R1, you determine that it is failing to advertise the 172.16.10.32/27 network which action is most likely to correct the problem ?

- A. enable passive interface
- B. enable manual summarization
- C. enable autosummarization
- D. enable RIPV2

**Answer:** D

**NEW QUESTION 180**

Which VTP mode prevents you from making changes to vlans?

- A. Server.
- B. Client.
- C. Transparent.
- D. Off

**Answer:** B

**Explanation:**

VTP Client

- VTP clients function the same way as VTP servers, but you cannot create, change, or delete VLANs on a VTP client.
- A VTP client only stores the VLAN information for the entire domain while the switch is on.
- A switch reset deletes the VLAN information.
- You must configure VTP client mode on a switch.

**NEW QUESTION 184**

Which three describe the reasons large OSPF networks use a hierarchical design? (Choose Three)

- A. to speed up convergence
- B. to reduce routing overhead
- C. to lower costs by replacing routers with distribution layer switches
- D. to decrease latency by increasing bandwidth
- E. to confine network instability to single areas of the network
- F. to reduce the complexity of router configuration

**Answer:** ABE

**NEW QUESTION 187**

Which type of cable must you use to connect two device with mdi interfaces ?

- A. rolled
- B. crosseover
- C. crossed
- D. straight through

**Answer: C**

**NEW QUESTION 192**

When is a routing table entry identified as directly connected?

- A. when the local router is in use as the network default gateway
- B. when the network resides on a remote router that is physically connected to the local router
- C. when an interface on the route is configure with an ip address and enabled
- D. when the route is statically assigned to reach a specific network

**Answer: C**

**NEW QUESTION 193**

When troubleshooting ethernet connectivity issues how can you verify that an ip address is known to a router?

- A. Check Whether the ip address is in the routing table
- B. Check Whether an ACL is blocking the ip address
- C. Check Whether the ip address is in the CAM Table
- D. Check Whether the ip address is in the ARP Table

**Answer: D**

**NEW QUESTION 196**

which command can you enter to re enable cisco discovery protocol on a local router after it has been disabled ?

- A. Router (config)# cdp run
- B. Router (config-if)# cdp run
- C. Router (config)# cdp enable
- D. Router (config-if)# cdp enable

**Answer: A**

**NEW QUESTION 199**

Which type of secure MAC address must be configured manually?

- A. static
- B. dynamic
- C. sticky
- D. bia

**Answer: A**

**NEW QUESTION 202**

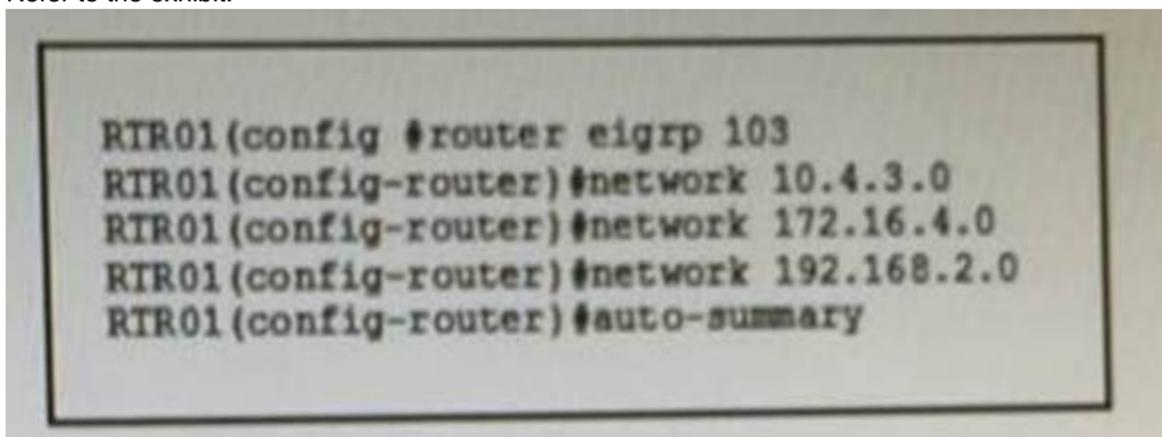
Which RPVST+ port state is excluded from all STP operations?

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

**Answer: D**

**NEW QUESTION 206**

Refer to the exhibit.



If RTR01 as configured as shown, which three addresses will be received by other routers that are running EIGRP on the network? (Choose three.)

- A. 172.16.4.0
- B. 10.0.0.0
- C. 172.16.0.0
- D. 192.168.2.0
- E. 192.168.0.0
- F. 10.4.3.0

**Answer:** ACD

**NEW QUESTION 210**

Which three options are the major components of a network virtualization architecture? (Choose three.)

- A. virtual network services
- B. authentication services
- C. network access control
- D. network resilience
- E. path isolation
- F. policy enforcement

**Answer:** ACE

**NEW QUESTION 213**

Under which circumstance is a router on a stick most appropriate?

- A. When the router must route a single across multiple physical links.
- B. When the router must route multiple subnets across multiple physical links.
- C. When the router must route a single across single physical links.
- D. When the router must route multiple subnets across single physical links.

**Answer:** B

**NEW QUESTION 214**

Which utility can you use to determine whether a switch can send echo requests and replies?

- A. SSH
- B. traceroute
- C. ping
- D. Telnet

**Answer:** C

**NEW QUESTION 217**

How many bits represent network id in a IPv6 address?

- A. 32
- B. 48
- C. 64
- D. 128

**Answer:** C

**Explanation:** <http://networkengineering.stackexchange.com/questions/30836/calculate-networking-bits-for-ipv6>  
64 bits for Network ID and 64 bits for Interface ID 64+64=128

**NEW QUESTION 221**

Refer to the exhibit.

```

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

Gateway of last resort is 192.168.14.4 to network 0.0.0.0

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

IF R1 sends traffic to 192.168.101.45 the traffic is sent through which interface?

- A. FastEthernet0/1
- B. FastEthernet0/0
- C. FastEthernet1/0
- D. FastEthernet1/1

**Answer: C**

**NEW QUESTION 223**

which three options are fields in a basic ethernet data frame ?

- A. preamble
- B. time to live
- C. version
- D. header checksum
- E. length type
- F. frame check sequence

**Answer: AEF**

**NEW QUESTION 225**

Refer to the exhibit .

```

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

Gateway of last resort is 192.168.14.4 to network 0.0.0.0

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

if R1 sends Traffic to 192.168.10.45 the traffic is sent through which interface ?

- A. FastEthernet 0/1
- B. FastEthernet 0/0
- C. FastEthernet 1/0
- D. FastEthernet 1/1

**Answer: A**

**NEW QUESTION 227**

which WAN topology provides a direct connection from each site to all other sites on the network ?

- A. single-homed
- B. full mesh
- C. point-to-point
- D. hub-and-spoke

**Answer: B**

**NEW QUESTION 232**

How does a router handle an incoming packet whose destination network is missing from the routing table?

- A. it discards the packet.
- B. it broadcasts the packet to each network on the router.
- C. it routes the packet to the default route.
- D. it broadcasts the packet to each interface on the router.

**Answer: C**

**NEW QUESTION 236**

Which statement about IPv6 link-local addresses is true ?

- A. they must be configured on all IPv6 interface
- B. They must be globally unique
- C. They must be manually configured
- D. They are advertised globally on the network

**Answer: B**

**NEW QUESTION 239**

Which Command can you enter on a switch to display the ip address associated with connected devices?

- A. Show cdp neighbors
- B. Show cdp neighbors detail
- C. show cdp traffic
- D. show cdp interface

**Answer: B**

**NEW QUESTION 243**

Which two statements about IPv6 address 2002:ab10:beef::/48 are true?(choose two)

- A. The embedded IPv4 address can be globally routed.
- B. It is used for an ISATAP tunnel
- C. The embedded IPv4 address is an RFC 1918 address
- D. The MAC address 20:02:b0:10:be:ef is embedded into the IPv6 address
- E. It is used for a 6to4 tunnel

**Answer: AE**

**NEW QUESTION 247**

DRAG DROP

crossover	switch access port to router
null modem	switch to switch
straight-through	PC COM port to switch
rollover	
9-25 pin serial	

**Answer:**

**Explanation:**

crossover	straight-through
null modem	crossover
straight-through	rollover
rollover	
9-25 pin serial	

Topic 2, New Pool Exam B

**NEW QUESTION 252**

Which statement about unique local IPv6 addresses is true?

- A. Summarization is not supported.
- B. They require all prefixes to be unique.
- C. Their global IDs are assigned sequentially.
- D. They are routable to the public Internet.

**Answer:** B

**NEW QUESTION 255**

In which two circumstances are private IPv4 addresses appropriate? (Choose two)

- A. on internal hosts that stream data solely to external resources
- B. on hosts that communicates only with other internal hosts
- C. on the public-facing interface of a firewall
- D. on hosts that require minimal access to external resources
- E. to allow hosts inside an enterprise to communicate in both directions with hosts outside the enterprise

**Answer:** AB

**NEW QUESTION 259**

What is the most efficient subnet mask for a point to point ipv6 connection?

- A. /127
- B. /128
- C. /64
- D. /48
- E. /32

**Answer:** B

**Explanation:** ref : <https://tools.ietf.org/html/rfc6164>

**NEW QUESTION 262**

You have configured the host computers on a campus LAN to receive their DHCP addresses from the local router to be able to browse their corporate site. Which statement about the network environment is true?

- A. It supports a DNS server for use by DHCP clients.
- B. Two host computers may be assigned the same IP address.
- C. The DNS server must be configured manually on each host.
- D. The domain name must be configured locally on each host computer.

**Answer:** A

**NEW QUESTION 267**

Which statement describes the effect of the copy run start command on a router in enable mode?

- A. The running configuration of the router is saved to NVRAM and used during the boot process.
- B. The router reboots and loads the last saved running configuration.
- C. A copy of the running configuration of the router is sent by FTP to a designated server.
- D. A new running configuration is loaded from flash memory to the router.

**Answer:** A

**NEW QUESTION 271**

Which Ethernet interface command is present when you boot a new Cisco router for the first time?

- A. speed 100
- B. shutdown
- C. ip address 192.168.1.1 255.255.255.0
- D. duplex half

**Answer:** B

**NEW QUESTION 276**

Which APIC-EM tool allows an administrator to verify ACLs throughout the network?

- A. Cisco Intelligent WAN application
- B. traceroute
- C. Network Topology
- D. Path Trace

**Answer:** D

**Explanation:** One of the most important features of the APIC-EM controller is the capability to manage policies across the entire network. APIC-EM ACL Analysis and Path Trace provide tools to allow the administrator to analyze and understand ACL policies and configurations. Administrators are hesitant to change ACLs, for fear of breaking them and causing new problems. Together, ACL Analysis and Path Trace enable the administrator to easily visualize traffic flows and discover

any conflicting, duplicate, or shadowed ACL entries.

**NEW QUESTION 278**

After you configure a new router to connect to a host through the GigabitEthernet0/0 port of the router, you log in to the router and observe that the new link is down. Which action corrects the problem?

- A. Use a crossover cable between the host and R1.
- B. Use a straight through cable between the host and R1.
- C. Configure the host to use R1 as the default gateway.
- D. Use a rollover cable between the host and R1.

**Answer: A**

**NEW QUESTION 281**

Which command do you enter to enable an interface to support PPPoE on a client?

- A. Dev1(config)# bba-group pppoe bba1
- B. Dev1(config-if)# pppoe-client dial-pool-number1
- C. Dev1(config-if)# pppoe enable group bba1
- D. Dev1(config-if)# pppoe enable

**Answer: D**

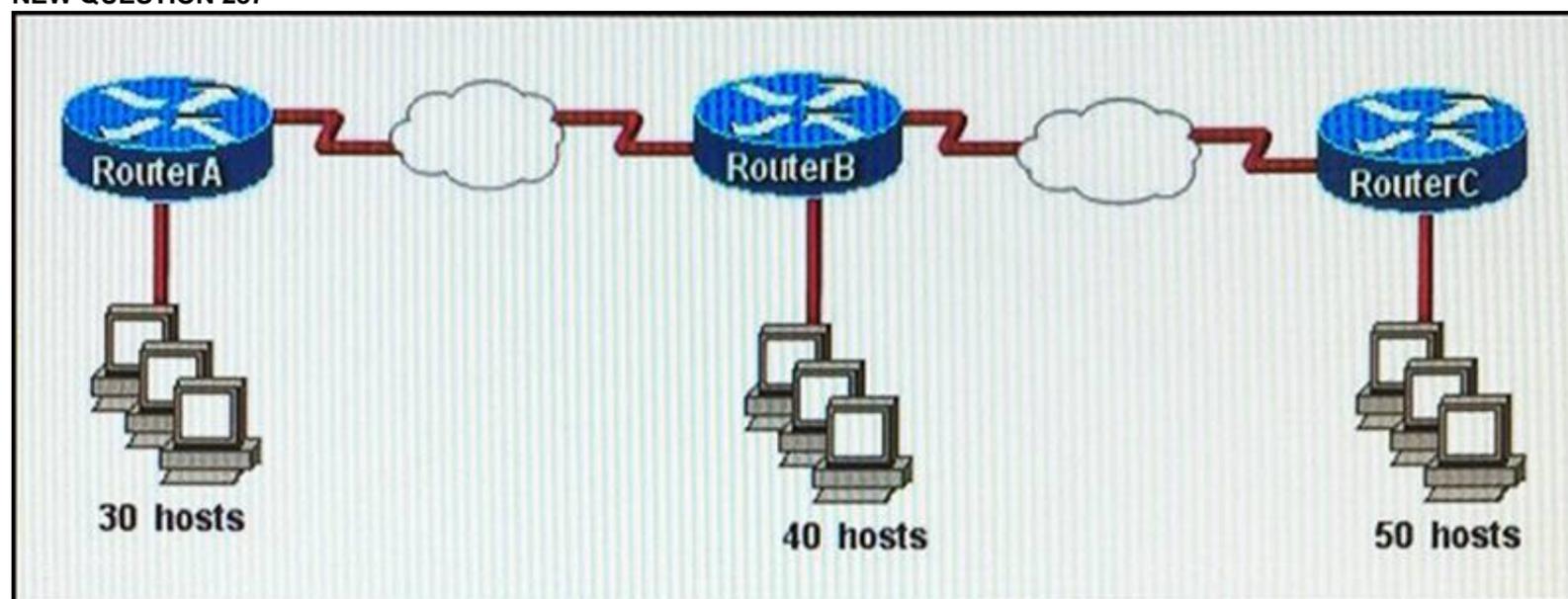
**NEW QUESTION 285**

What is the default encapsulation type for Cisco WAN serial interfaces?

- A. Frame Relay
- B. HDLC
- C. PPP
- D. SDLC

**Answer: B**

**NEW QUESTION 287**



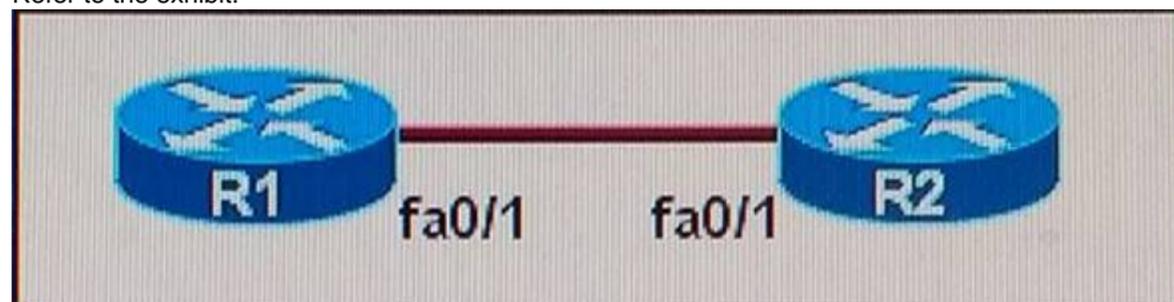
Refer to the exhibit. The enterprise has decided to use the network address 172.16.0.0. The network administrator needs to design a classful addressing scheme to accommodate the three subnets, with 30, 40, and 50 hosts, as shown. Which subnet mask would accommodate this network?

- A. 255.255.255.224
- B. 255.255.255.240
- C. 255.255.255.252
- D. 255.255.255.248
- E. 255.255.255.192

**Answer: E**

**NEW QUESTION 289**

Refer to the exhibit.



The two routers have had their startup configurations cleared and have been restarted. At a minimum, which option below must the administrator do to enable

CDP to exchange information between R1 and R2?

- A. Configure the router with the `cdp enable` command.
- B. Configure IP addressing and `no shutdown` commands on both the R1 and R2 fa0/1 interfaces.
- C. Configure IP addressing and `no shutdown` commands on either of the R1 or R2 fa0/1 interfaces.
- D. Enter `no shutdown` commands on the R1 and R2 fa0/1 interfaces.

**Answer:** D

**NEW QUESTION 294**

Which adverse situation can occur if an Ethernet cable is too long?

- A. late collisions
- B. giants
- C. interface resets
- D. runts

**Answer:** A

**NEW QUESTION 299**

Which three checks must you perform when troubleshooting EIGRPv6 adjacencies? (Choose three.)

- A. Verify that IPv6 is enabled.
- B. Verify that the `network` command has been configured.
- C. Verify that auto summary is enabled.
- D. Verify that the interface is up.
- E. Verify that an IPv4 address has been configured.
- F. Verify that the router ID has been configured.

**Answer:** ADF

**NEW QUESTION 304**

Which of the port is not part of STP protocol.?

- A. Listening
- B. Learning
- C. Forwarding
- D. Discarding

**Answer:** D

**NEW QUESTION 305**

Drag and drop the extended traceout option from the left onto the correct description on the right.

maximum time to live	A value that, when reached, terminates the traceroute command.
minimum time to live	IP header options.
numeric display	Overrides the router's selection of an outbound interface.
source address	Sets the interval for which the probe will wait for a response.
timeout	Suppresses the display of known hops.
timestamp, verbose	Suppresses the display of hostnames.

**Answer:**

**Explanation:** <https://www.cisco.com/c/en/us/support/docs/ip/routing-information-protocol-rip/13730-ext-ping-trace.html>

**NEW QUESTION 306**

Which functionality does an SVI provide?

- A. OSI Layer 2 connectivity to switches
- B. remote switch administration
- C. traffic routing for VLANs
- D. OSI Layer 3 connectivity to switches

**Answer: C**

**NEW QUESTION 309**

After you configure a GRE tunnel between two networks, the tunnel comes up normally, but workstations on each side of the tunnel cannot communicate. Which reason for the problem is most likely true?

- A. The tunnel source address is incorrect.
- B. The tunnel destination address is incorrect.
- C. The route between the networks is undefined.
- D. The IP MTU is incorrect.
- E. The distance configuration is missing.

**Answer: D**

**NEW QUESTION 314**

Under which two circumstances is network traffic most likely to use an Exterior Gateway Routing Protocol? (Choose two)

- A. When an employee connects to an employer branch office in a different city.
- B. When network traffic is routing to a different building on a corporate campus.
- C. When an employee is browsing the public internet.
- D. When an employee checks email while working onsite at the data center.
- E. When a user browsing the web site of a business partner.

**Answer: AD**

**NEW QUESTION 319**

Drag and drop the BGP components from the left onto the correct descriptions on the right.

autonomous system number	device that is running BGP
BGP Speaker	neighbor device that shares the same AS number as the local device.
eBGP Peer	neighbor that located outside of administrative domain of the local device.
BGP Peer	Value that identifies an administrative domain
Prefix	value that is advertised with the network keyword.

**Answer:**

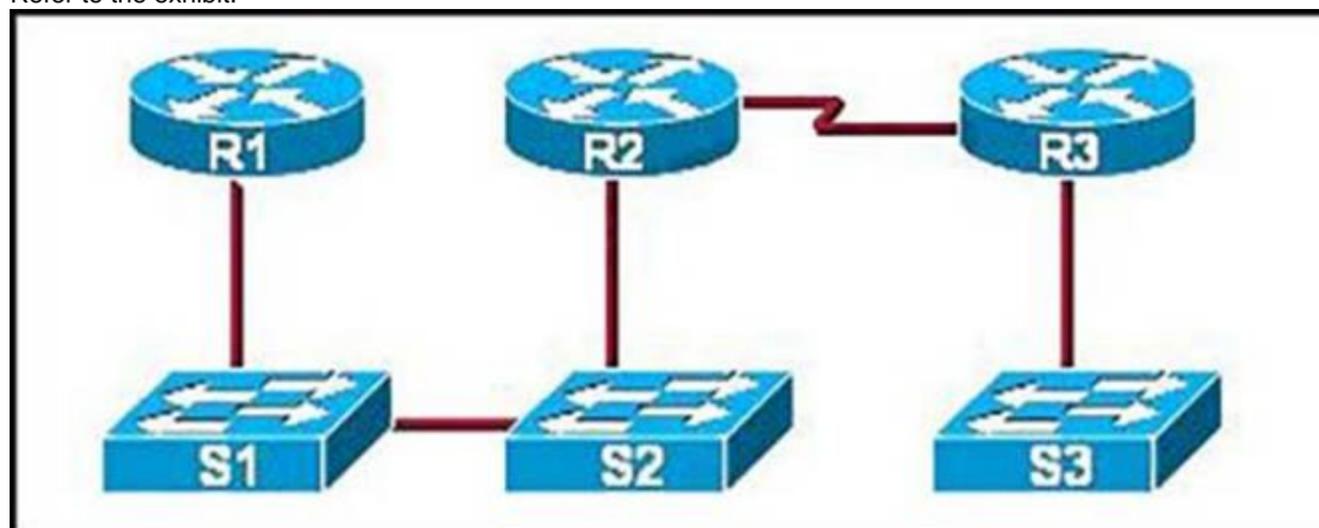
**Explanation:** BGP speaker: device that is running BGP

+ Prefix = Value that is advertised with the network keyword.

eBGP Peer = neighbor that located outside of administrative domain of the local device. BGP Peer = neighbor device that shares the same AS number as the local device. Autonomous system number = Value that identifies an administrative domain

**NEW QUESTION 323**

Refer to the exhibit.



If CDP is enabled on all devices and interfaces, which devices will appear in the output of a show cdp neighbors command issued from R2?

- A. R1, S1, S2, R3 and S3

- B. R2 and R3
- C. R3 and S2
- D. R1 and R3
- E. R1, S1, S2, and R3

**Answer:** C

**NEW QUESTION 324**

Which tunneling mechanism embeds an IPv4 address within an IPv6 address?

- A. Teredo
- B. 6to4
- C. 4to6
- D. GRE
- E. ISATAP

**Answer:** B

**Explanation:** ref :<https://tools.ietf.org/html/rfc6052#section-2>

**NEW QUESTION 325**

Which statement is a Cisco best practice for switch port security?

- A. Vacant switch ports must be shut down.
- B. Empty ports must be enabled in VLAN 1.
- C. VLAN 1 must be configured as the native VLAN.
- D. Err-disabled ports must be configured to automatically re-enable.

**Answer:** A

**NEW QUESTION 329**

Which protocol does ipv6 use to discover other ipv6 nodes on the same segment?

- A. CLNS
- B. TCPv6
- C. NHRP
- D. NDP
- E. ARP

**Answer:** D

**Explanation:** ref : <https://tools.ietf.org/html/rfc4861>

**NEW QUESTION 331**

Which two statements about the spanning-tree bridge ID are true? (Choose two.)

- A. It is composed of a 4-bit bridge priority and a 12-bit system ID extension.
- B. The bridge ID is transmitted in the IP header to elect the root bridge.
- C. The system ID extension is a value between 1 and 4095.
- D. It is composed of an 8-bit bridge priority and a 16-bit system ID extension.
- E. The bridge priority must be incremented in blocks of 4096.

**Answer:** AE

**NEW QUESTION 332**

Which two functions can be performed by a local DNS server? (Choose two)

- A. transferring spirit horizon traffic between zones
- B. Forwarding name resolution requests to an external DNS server
- C. assigning IP addresses to local clients
- D. resolving names locally
- E. copying updated IOS images to Cisco switches

**Answer:** BD

**NEW QUESTION 337**

Why would a network administrator configure port security on a switch?

- A. to limit the number of Layer 2 broadcasts on a particular switch port
- B. to prevent unauthorized Telnet access to a switch port
- C. to prevent unauthorized hosts from accessing the LAN
- D. block unauthorized access to the switch management interfaces

**Answer:** C

**NEW QUESTION 341**

Which two statements describe the operation of the CSMA/CD access method? (Choose two.)

- A. After a collision, all stations run a random backoff algorithm
- B. When the backoff delay period has expired, all stations have equal priority to transmit data.
- C. In a CSMA/CD collision domain, multiple stations can successfully transmit data simultaneously.
- D. After a collision, the station that detected the collision has first priority to resend the lost data.
- E. The use of hubs to enlarge the size of collision domain is one way to improve the operation of the CSMA/CD access method.
- F. After a collision, all stations involved run an identical backoff algorithm and then synchronize with each other prior to transmitting data.
- G. In a CSMA/CD collision domain, stations must wait until media is not in use before transmitting.

**Answer:** AF

**NEW QUESTION 343**

Which VLAN bridge priority value is assigned by the set spantree root command?

- A. 8192
- B. 16384
- C. 28672
- D. 32768

**Answer:** A

**NEW QUESTION 344**

Which two statements are true regarding ICMP packets? (Choose two.)

- A. They are encapsulated within IP datagrams.
- B. They guarantee datagram delivery.
- C. TRACERT uses ICMP packets.
- D. They acknowledge receipt of TCP segments.
- E. They are encapsulated within UDP datagrams.

**Answer:** AC

**NEW QUESTION 347**

Which command can you enter in a network switch configuration so that learned mac addresses are saved in configuration as they connect ?

- A. Switch(config-if)#Switch port-security
- B. Switch(config-if)#Switch port-security Mac-address sticky
- C. Switch(config-if)#Switch port-security maximum 10
- D. Switch(config-if)#Switch mode access

**Answer:** B

**NEW QUESTION 350**

Which two statements about access points are true? (Choose Two)

- A. They can provide access within enterprises and to the public.
- B. in Most cases, they are physically connected to other network devices to provide network connectivity.
- C. They can protect a network from internal and external threats.
- D. Most access points provide Wi-Fi and Bluetooth connectivity.
- E. They must be hardwired to a modem.

**Answer:** CD

**NEW QUESTION 352**

Which table displays the MAC addresses that are learned on a switch?

- A. FIB
- B. ARP
- C. TCAM
- D. CAM

**Answer:** D

**NEW QUESTION 354**

Which three statements are true about the operation of a full-duplex Ethernet network? (Choose three.)

- A. The host network card and the switch port must be capable of operating in full-duplex mode.
- B. Ethernet hub ports are preconfigured for full-duplex mode.
- C. A dedicated switch port is required for each full-duplex node.
- D. There are no collisions in full-duplex mode.
- E. In a full-duplex environment, the host network card must check for the availability of the network media before transmitting.

**Answer:** ACD

**NEW QUESTION 358**

Which two IP SLA operations can you use to measure the end-to-end response time for all IP traffic between a Cisco router and an end device?

- A. ICMP path echo
- B. UDP echo
- C. ICMP path jitter
- D. UDP jitter
- E. TCP connect
- F. ICMP echo

**Answer:** AF

**NEW QUESTION 359**

Which three statements about IPv6 address fd14:920b:f83d:4079::/64 are true? (Choose three)

- A. The subnet ID is 14920bf83d
- B. The subnet ID is 4079
- C. The global ID is 14920bf83d
- D. The address is a link-local address
- E. The global ID is 4079
- F. The address is a unique local address

**Answer:** BCF

**Explanation:** [https://www.ripe.net/participate/member-support/lir-basics/ipv6\\_reference\\_card.pdf](https://www.ripe.net/participate/member-support/lir-basics/ipv6_reference_card.pdf)

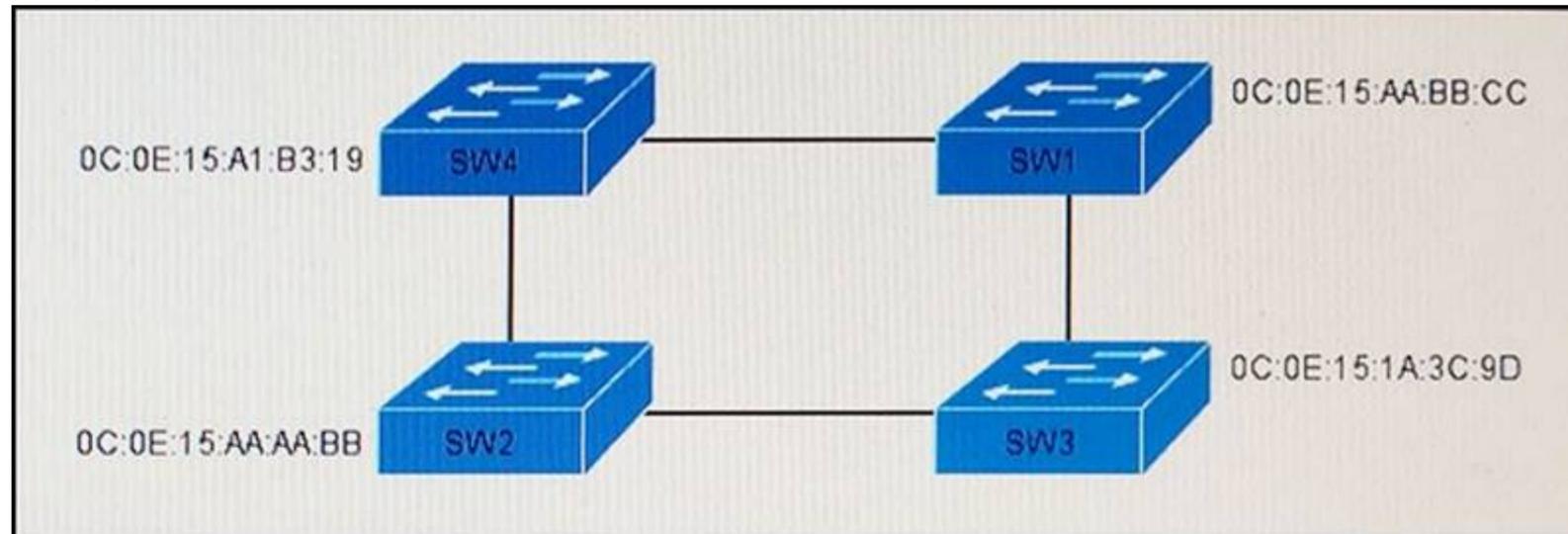
**NEW QUESTION 361**

Which statement describes the effect of the overload keyword in the ip nat inside source list 90 interface ethernet 0/0 overload command?

- A. Addresses that match access list inside are translated to the IP address of the Ethernet 0/0 interface.
- B. Hosts that match access list inside are translated to an address in the Ethernet 0/0 network.
- C. Hosts on the Ethernet 0/0 LAN are translated to the address pool in access list 90.
- D. Addresses that match access list 90 are translated through PAT to the IP address of the Ethernet 0/0 interface.

**Answer:** D

**NEW QUESTION 364**

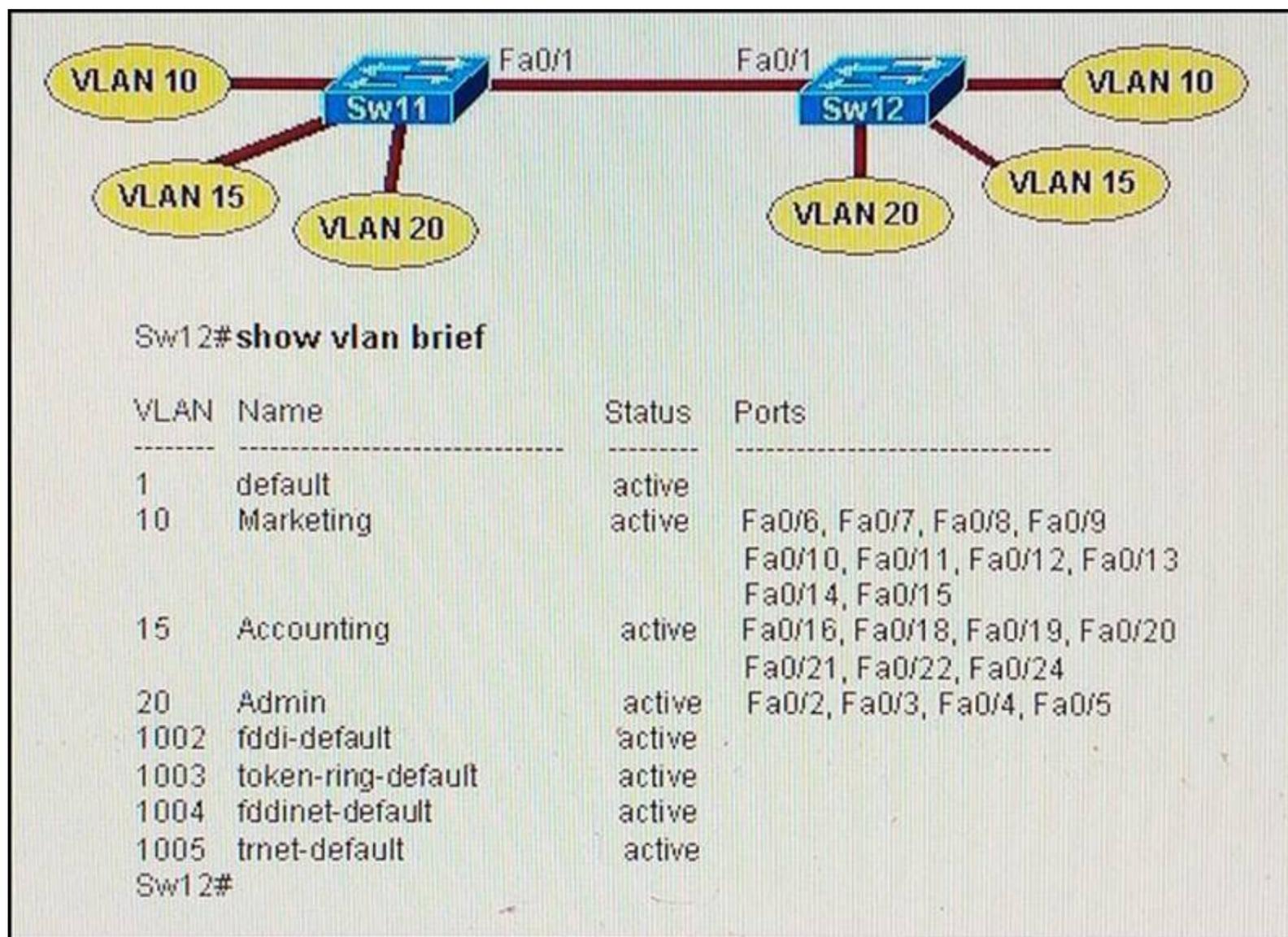


Refer to the exhibit. Which switch in this configuration becomes the root bridge?

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

**Answer:** C

**NEW QUESTION 368**



Refer to the exhibit. A technician has configured the FastEthernet0/1 interface on Sw11 as an access link in VLAN 1. Based on the output from the show vlan brief command issued on Sw12, what will be the result of making this change on Sw11?

- A. Hosts will not be able to communicate between the two switches.
- B. The hosts in all VLANs on the two switches will be able to communicate with each other.
- C. Only the hosts in VLAN10 and VLAN 15 on the two switches will be able to communicate with each other.
- D. Only the hosts in VLAN 1 on the two switches will be able to communicate with each other.

**Answer:** A

**NEW QUESTION 371**

Which three statements about DWDM are true? (Choose three)

- A. It allows a single strand of fiber to support bidirectional communications
- B. It is used for long-distance and submarine cable systems
- C. It can multiplex up to 256 channels on a single fiber
- D. It supports both the SDH and SONET standards
- E. Each channel can carry up to a 1-Gbps signal
- F. It supports simplex communications over multiple strands of fiber

**Answer:** CDE

**Explanation:** ref: [https://www.cisco.com/en/US/products/hw/optical/ps2011/products\\_data\\_sheet09186a008012a900.html](https://www.cisco.com/en/US/products/hw/optical/ps2011/products_data_sheet09186a008012a900.html)

**NEW QUESTION 375**

If two OSPF neighbors have formed complete adjacency and are exchanging link-state advertisements, which state have they reached?

- A. Exstart
- B. 2-Way
- C. FULL
- D. Exchange

**Answer:** C

**Explanation:** <https://www.google.com/search?q=state+ospf&source=lnms&tbm=isch&sa=X&ved=0ahUKEwjg7ebXjtLVAh>

**NEW QUESTION 376**

Which command can you enter to assign an interface to the default VLAN?

- A. Switch(config-if)# switchport access vlan 1
- B. Switch(config-if)# switchport trunk native vlan 1
- C. Switch(config-if)# vlan 1

D. Switch(config)# int vlan 1

**Answer:** A

**NEW QUESTION 377**

Which three statements accurately describe CDP? (Choose three.)

- A. CDP can discover Cisco devices that are not directly connected.
- B. CDP is a network layer protocol.
- C. CDP can discover directly connected neighboring Cisco devices.
- D. CDP is a datalink layer protocol.
- E. CDP is a Cisco proprietary protocol.
- F. CDP is an IEEE standard protocol.

**Answer:** CDE

**NEW QUESTION 382**

Which three statements are typical characteristics of VLAN arrangements? (Choose three.)

- A. VLANs cannot span multiple switches.
- B. VLANs typically decrease the number of collision domains.
- C. Connectivity between VLANs requires a Layer 3 device.
- D. Each VLAN uses a separate address space.
- E. A new switch has no VLANs configured.
- F. A switch maintains a separate bridging table for each VLAN.

**Answer:** CDF

**NEW QUESTION 385**

Which command do we use to see SNMP version

- A. show snmp pending
- B. show snmp engineID
- C. snmp-server something

**Answer:** A

**Explanation:** ref: [https://www.cisco.com/c/en/us/td/docs/ios/12\\_2/configfun/command/reference/ffun\\_r/frf014.html#wp1053304](https://www.cisco.com/c/en/us/td/docs/ios/12_2/configfun/command/reference/ffun_r/frf014.html#wp1053304)

**NEW QUESTION 386**

Which command can you enter on a switch to determine the current SNMP security model ?

- A. Show snmp pending
- B. show snmp group
- C. snmp server contact
- D. show snmp engineID

**Answer:** B

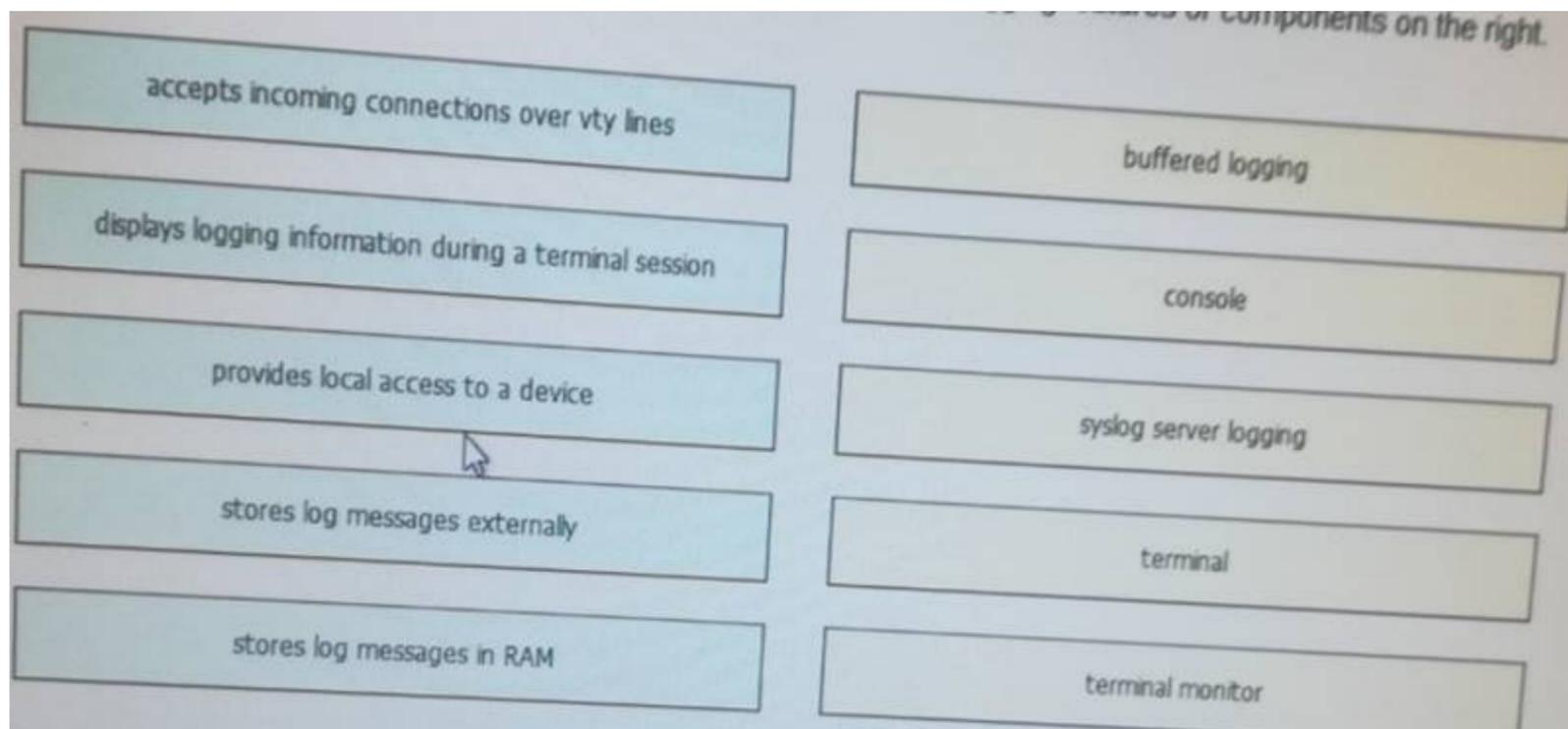
**Explanation:** show snmp group

To display the names of groups on the router and the security model, the status of the different views, and the storage type of each group, use the show snmp group EXEC command.

[https://www.cisco.com/c/en/us/td/docs/ios/12\\_2/configfun/command/reference/ffun\\_r/frf014.html](https://www.cisco.com/c/en/us/td/docs/ios/12_2/configfun/command/reference/ffun_r/frf014.html)

**NEW QUESTION 389**

Drag and drop the descriptions of logging from the left onto the correct logging features or components on the right.



**Answer:**

**Explanation:** Accept incoming cnc over vty lines-----terminal Display logging inf during a terminal session-----terminal monitor Provides loval access to a device-----console Stores log msg externally -----syslog server logging Stores log msg in RAM-----buffered logging

**NEW QUESTION 391**

You work as a network engineer for SASCOM Network Ltd company. On router HQ, a provider link has been enabled and you must configure an IPv6 default route on HQ and make sure that this route is advertised in IPv6 OSPF process. Also, you must troubleshoot another issue. The router HQ is not forming an IPv6 OSPF neighbor relationship with router BR.

Topology Details

Two routers HQ and BR are connected via serial links.

Router HQ has interface Ethernet0/1 connected to the provider cloud and interface Ethernet 0/0 connected to RA1

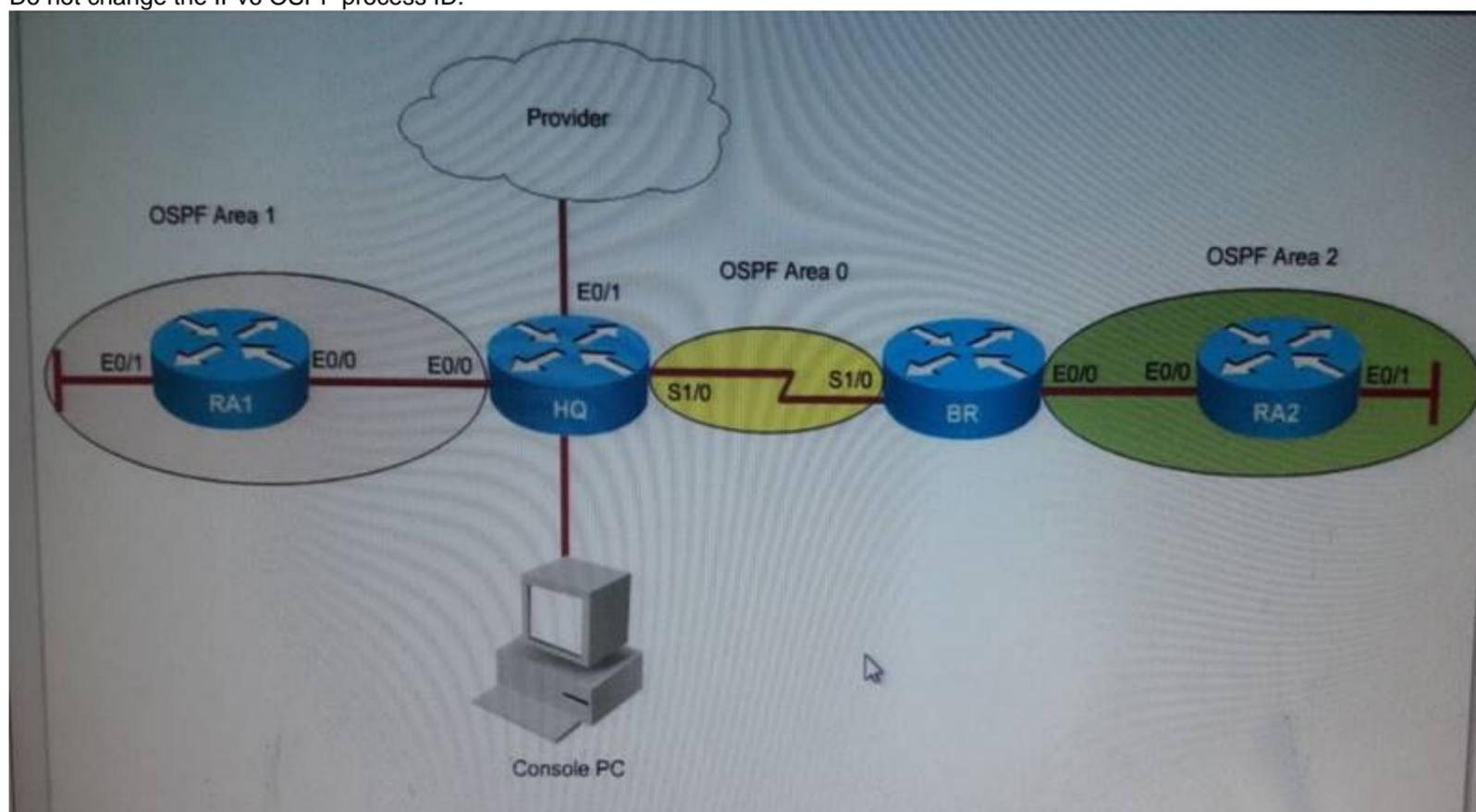
Router BR has interface Ethernet 0/0 connected to another router RA2.

IPv6 Routing Details

All routers are running IPv6 OSPF routing with process ID number 100 Refer to the topology diagram for information about the OSPF areas The Loopback 0 IPv4 address is the OSPF router ID on each router

Configuration requirements

- Configure IPv6 default route on router HQ with default gateway as 2001:DB8:B:B1B2::1.
- Verify by pinging provider test IPv6 address 2001 :DB8:0:1111:1 after configuring default route on HQ.
- Make sure that the default route is advertised in IPv6 OSPF on router HQ This default route should be advertised only when HQ has a default route in its routing table.
- Router HQ is not forming IPv6 OSPF neighbor with BR. You must troubleshoot and resolve this issue Special Note: To gain the maximum number of points, you must complete the necessary configurations and fix IPv6 OSPF neighbor issue with router BR IPv6 OSPFv3 must be configured without using address families. Do not change the IPv6 OSPF process ID.



**Answer:**

**Explanation:** 1- configure default route on router HQ : ipv6 unicast-routing ipv6 route ::/0 2001:DB8:B:B1B2::1  
2- advertise this route under ospfv3  
ipv6 router ospf 100  
Default-information originate  
3- fix adjacency problem if a area mismatches We need to enter in s1/0  
ipv6 ospf 100 area 0

**NEW QUESTION 392**

Drag and drop the network programmability features from the left onto the correct description on the right.

HTTPS	call to the APIC-EM API from a library
JSON	data-structure format that passes parameters for API calls
OpenFlow	northbound API
RBAC	southbound API
REST	token-based security mechanism

**Answer:**

**Explanation:**

HTTPS	RBAC
JSON	JSON
OpenFlow	REST
RBAC	OpenFlow
REST	HTTPS

**NEW QUESTION 394**

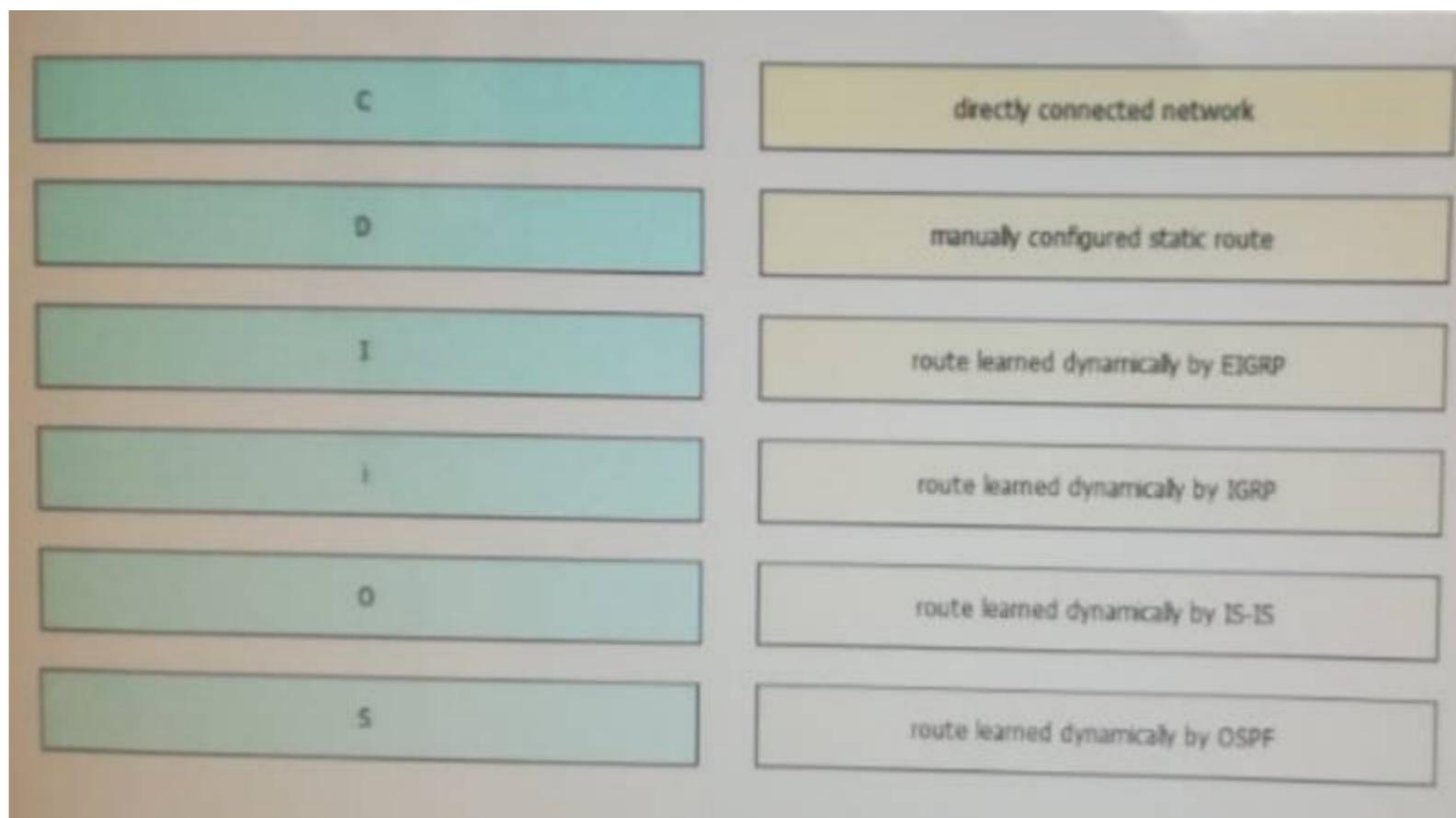
In which CLI configuration mode can you configure the hostname of a device?

- A. line mode
- B. interface mode
- C. global mode
- D. router mode

**Answer: C**

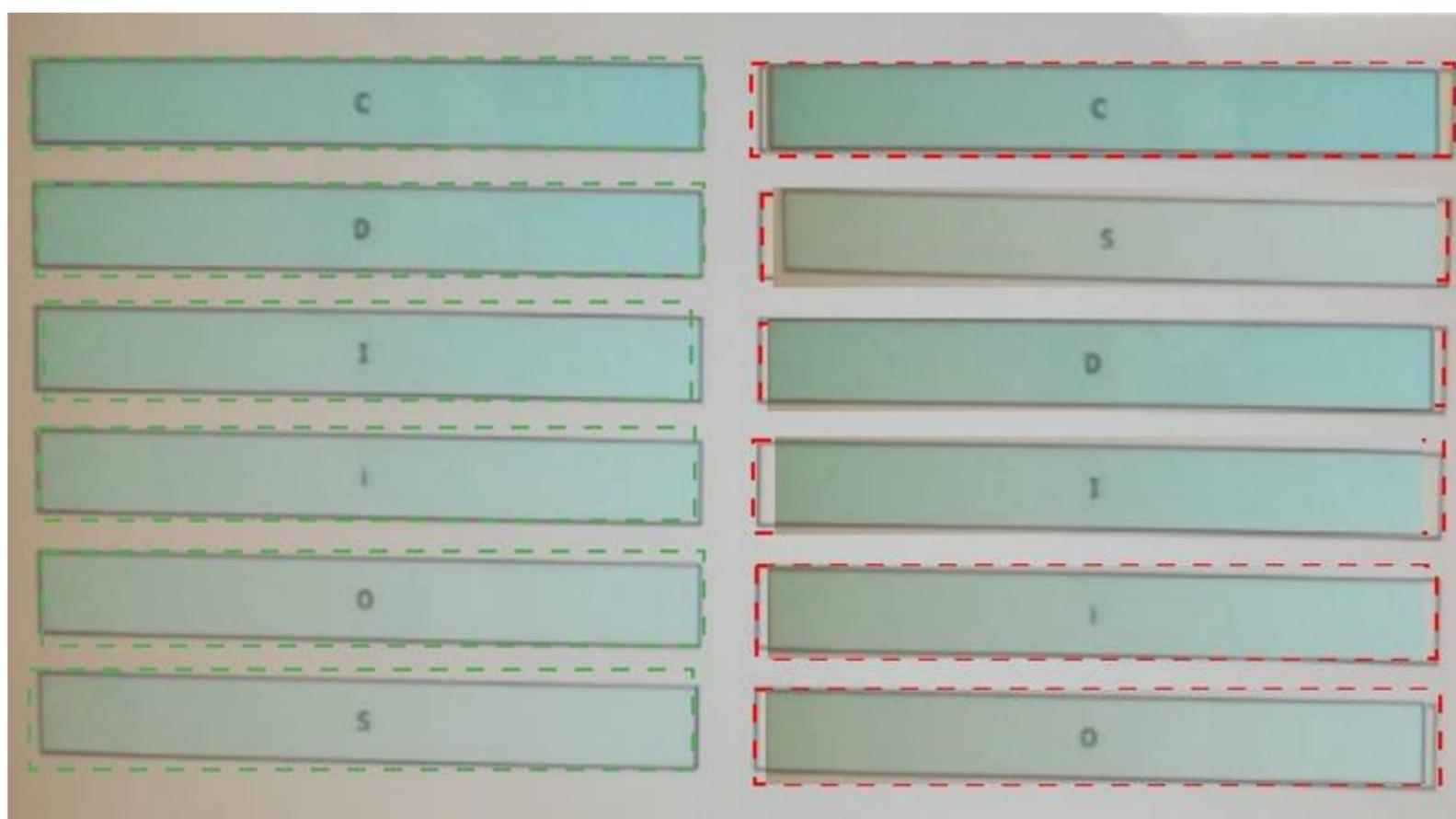
**NEW QUESTION 396**

Drag and Drop the route source codes in a routing table from the left onto the correct meanings on the right.



**Answer:**

**Explanation:**



**NEW QUESTION 401**

After you configure a default route to the Internet on a router, the route is missing from the routing table. Which option describes a possible reason for the problem?

- A. The next-hop address is unreachable.
- B. The default route was configured on a passive interface.
- C. Dynamic routing is disabled.
- D. Cisco Discovery Protocol is disabled on the interface used to reach the next hop.

**Answer: A**

**NEW QUESTION 403**

The command `ip route 192.168.100.160 255.255.255.224 192.168.10.2` was issued on a router. No routing protocols or other static routes are configured on the router. Which statement is true about this command?

- A. The interface with IP address 192.168.10.2 is on this router.
- B. The command sets a gateway of last resort for the router.
- C. Packets that are destined for host 192.168.100.160 will be sent to 192.168.10.2.
- D. The command creates a static route for all IP traffic with the source address 192.168.100.160.

Answer: C

**NEW QUESTION 406**

Which three features are represented by the letter A in AAA authentication? (Choose three.)

- A. authorization
- B. accountability
- C. authority
- D. authentication
- E. accounting
- F. accessibility

Answer: ADE

**NEW QUESTION 410**

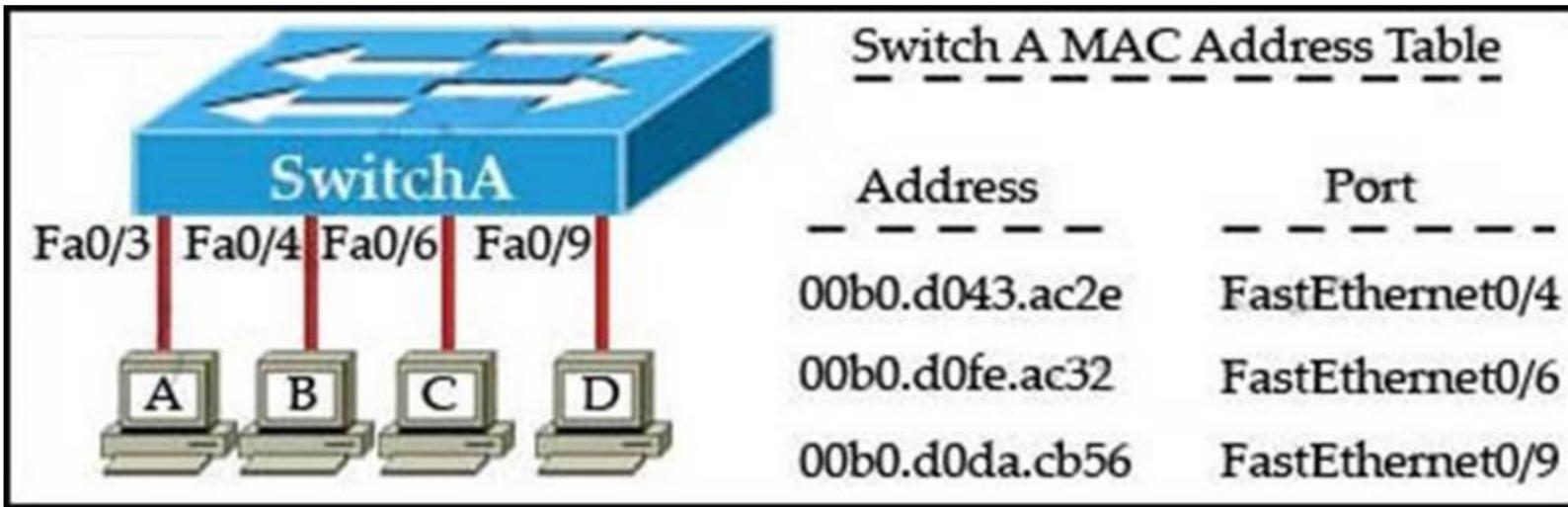
Drag and Drop the descriptions of IP protocol transmissions from the left onto the correct IP traffic types on the right.

Answer:

Explanation:

**NEW QUESTION 414**

Refer to the exhibit.



The exhibit is showing the topology and the MAC address table. Host A sends a data frame to host D. Which option describes what the switch will do when it receives the frame from host A?

- A. The switch will flood the frame out of all ports except for port Fa0/3.
- B. The switch will add the destination address of the frame to the MAC address table and forward the frame to host D.
- C. The switch will add the source address and port to the MAC address table and forward the frame to host D.
- D. The switch will discard the frame and send an error message back to host A.

Answer: C

**NEW QUESTION 419**

Drag and drop the MAC address types from the left onto the correct descriptions on the right?

dynamic secure MAC address	cleared from the CAM table when the switch reboots
nonsecure MAC address	configured with the switchport port-security mac-address command
static secure MAC address	dynamically learned addresses that can be retained permanently
sticky MAC address	requires access VLAN configuration only

Answer:

Explanation:

dynamic secure MAC address	nonsecure MAC address
nonsecure MAC address	sticky MAC address
static secure MAC address	dynamic secure MAC address
sticky MAC address	static secure MAC address

**NEW QUESTION 424**

Which functions can be centralized by an SDN controller?

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

Answer: C

**NEW QUESTION 429**

What is the subnet address of 192.168.1.42 255.255.255.248?

- A. 192.168.1.16/28
- B. 192.168.1.32/27
- C. 192.168.1.40/29
- D. 192.168.1.8/29
- E. 192.168.1.48/29

**Answer:** C

**NEW QUESTION 430**

Routers R1 and R2 are on the same network segment, and both routers use interface GigabitEthernet0/0. If R1 loses communication to R2, which two items should you check as you begin troubleshooting? (Choose two.)

- A. Verify that R2 is using 802.1q encapsulation.
- B. Verify that the GigabitEthernet0/0 interfaces on R1 and R2 are configured with the same subnetmask.
- C. Verify that the R1 GigabitEthernet0/0 interface is up and the line protocol is down.
- D. Verify that R1 and R2 both are using HDLC encapsulation.
- E. Verify that the R1 GigabitEthernet0/0 interface is up and the line protocol is up.

**Answer:** BE

**NEW QUESTION 435**

Which NTP concept indicates the distance between a device and the reliable time source?

- A. clock offset
- B. stratum
- C. reference
- D. dispersion

**Answer:** B

**NEW QUESTION 437**

Which two actions must you take to configure a PAgP EthernetChannel between two switches, S1 and S2? (Choose two.)

- A. Configure thechannel-group 1 mode autocommand on S1.
- B. Configure thechannel-group1 mode desirablecommand on S2.
- C. Configure thechannel-group 1 mode activecommand on S2.
- D. Configure thechannel-group 1 mode oncommand on S2.
- E. Configure thechannel-group 1 mode activecommand on S1.

**Answer:** AB

**NEW QUESTION 440**

Which option is the industry-standard protocol for etherChannel?

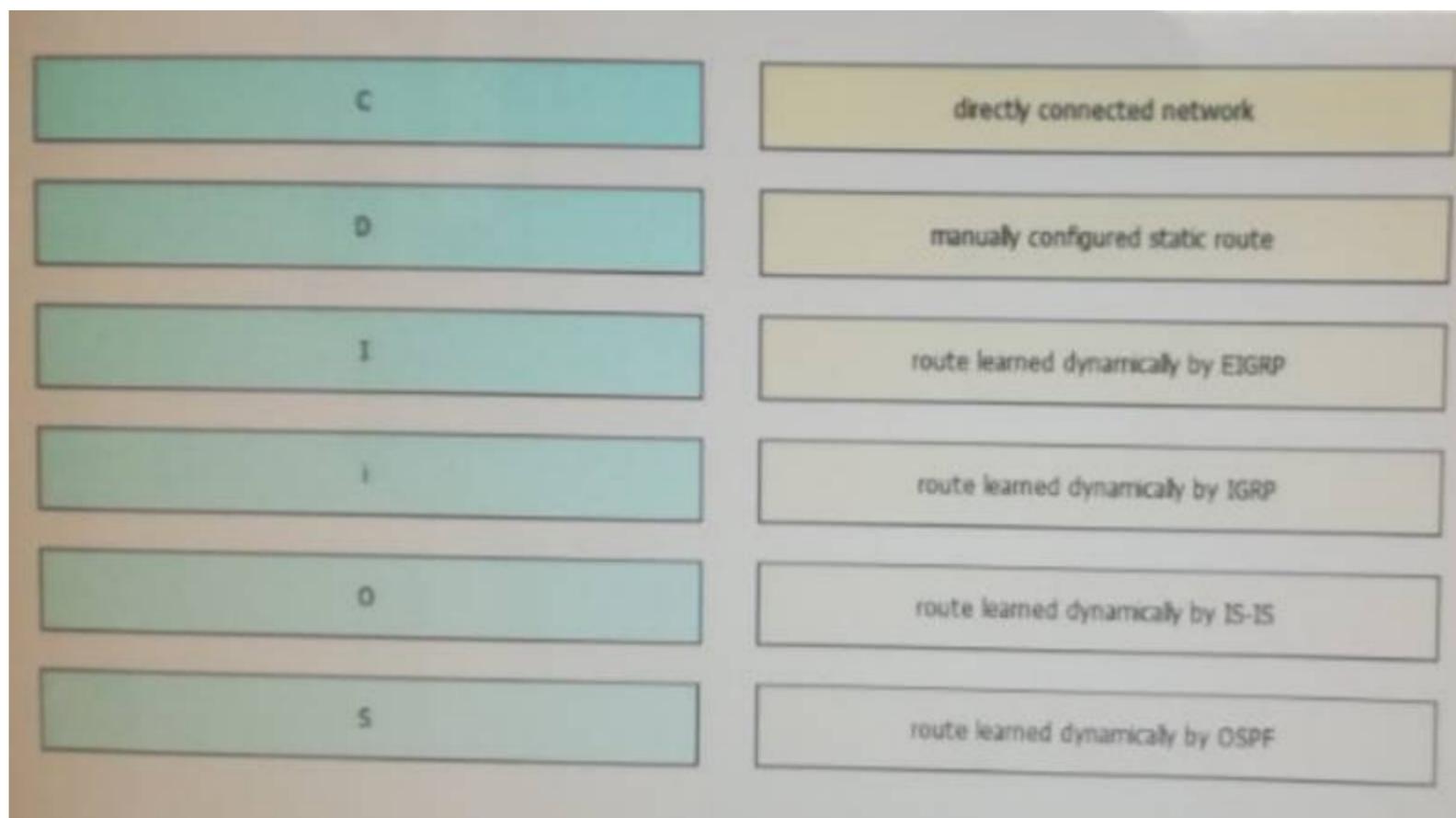
- A. Cisco Discovery protocol
- B. PAgp
- C. LACP
- D. DTP

**Answer:** B

**Explanation:** <http://www.omniseu.com/cisco-certified-network-associate-ccna/etherchannel-pagp-and-lacp-modes.php>

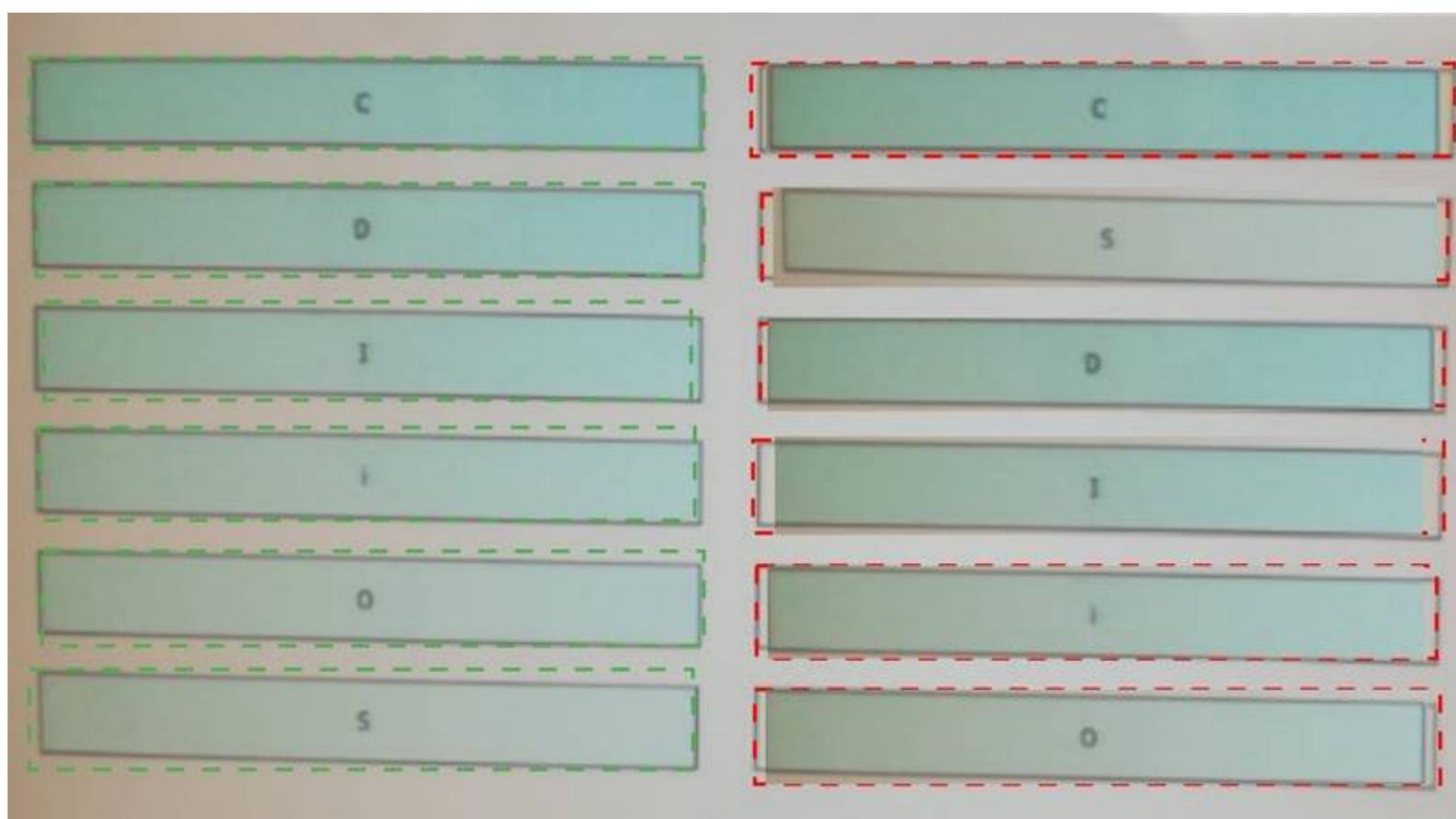
**NEW QUESTION 444**

Drag and drop the route source codes in a routing table from the left onto the correct meanings on the right.



**Answer:**

**Explanation:**



**NEW QUESTION 446**

Which statement about DHCP address pools is true?

- A. A network must be defined before you can configure a manual binding.
- B. Only one DNSserver can be identified for an individual DHCP group.
- C. You can use a subnet mask of prefix length to define a network.
- D. The domain name of the DHCP pool is specified in the global configuration of the router.

**Answer: C**

**NEW QUESTION 451**

Which value can you modify to configure a specific interface as the preferred forwarding interface?

- A. the VLAN priority
- B. the hello time
- C. the port priority
- D. the interface number

**Answer: C**

**NEW QUESTION 455**

Which statement about 6to4 tunneling is true?

- A. One tunnel endpoint must be configured with IPv4 only.
- B. Both tunnel endpoint must be configured with IPv4 only.
- C. It establishes a point-to-point tunnel.
- D. Both tunnel endpoints must support IPv4 and IPv6.

**Answer:** D

**NEW QUESTION 457**

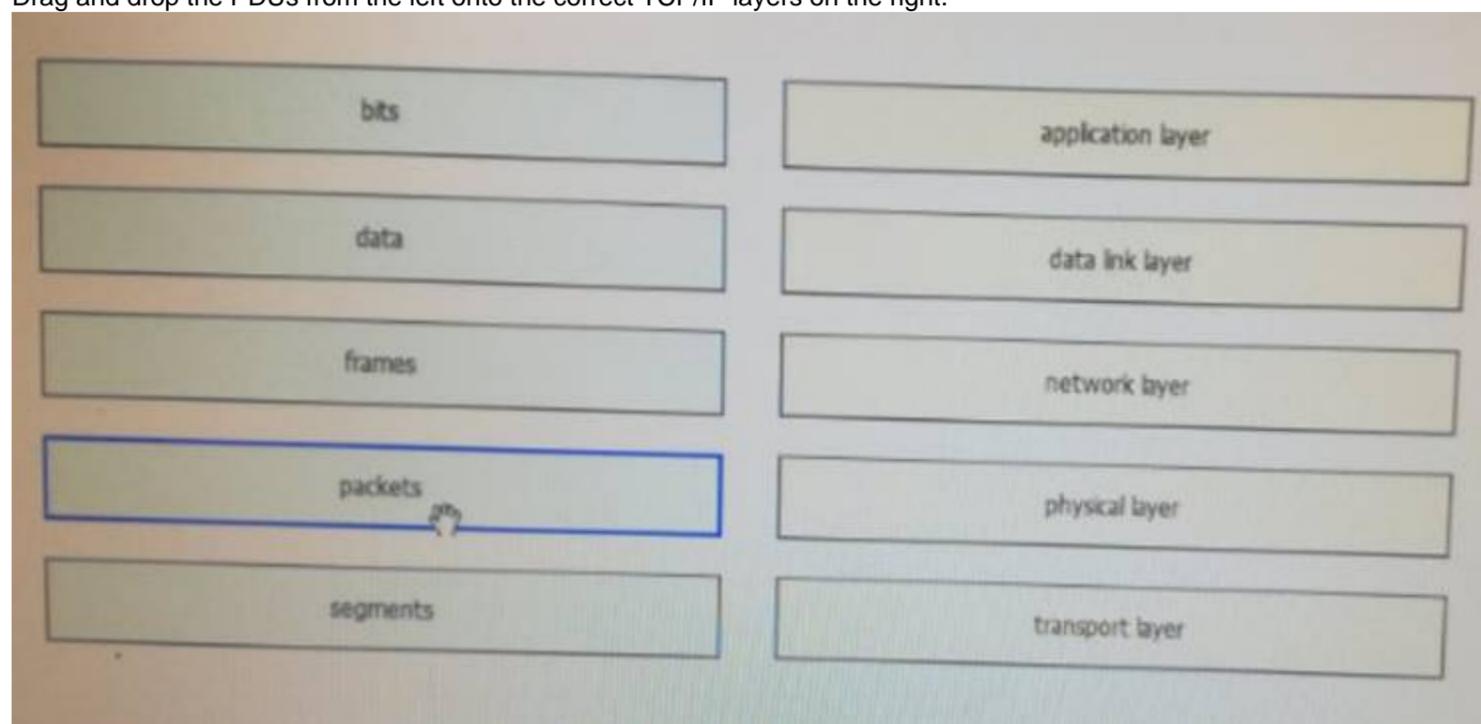
Which technique can you use to route IPv6 traffic over an IPv4 infrastructure?

- A. NAT
- B. 6to4 tunneling
- C. L2TPv3
- D. dual-stack

**Answer:** B

**NEW QUESTION 461**

Drag and drop the PDUs from the left onto the correct TCP/IP layers on the right.



**Answer:**

**Explanation:** <http://knutsonco.tripod.com/id9.html>

Here, is a table constructed to show you how OSI compares with TCP/IP, and how they both correspond with Encapsulation units (PDUs).

OSI #	OSI Layer Name	TCP/IP #	TCP/IP Layer Name	TCP/IP protocols at each TCP/IP Layer	TCP Utilities	Encapsulation Units (PDUs)
7	Application	4	Application	FTP, HTTP, SMTP DNS, TFTP	Telnet	Data
6	Presentation	4	Application	FTP, HTTP, SMTP DNS, TFTP	Telnet	Data
5	Session	4	Application	FTP, HTTP, SMTP DNS, TFTP	Telnet	Data
4	Transport	3	Transport	TCP	NONE	Segment
3	Network	2	Internet	IP	Ping Trace	Packet
2	Datalink	1	Network Access	NONE	NONE	Frames
1	Physical	1	Network Access	NONE	NONE	Bits

**NEW QUESTION 465**

What are two advantages of dynamic routing? (Choose two)

- A. It produces minimal CPU load.
- B. It can load-balance traffic over multiple link without manual intervention
- C. It allows the network administrator to choose the best route.
- D. it can be implemented easily even in large environments.
- E. it can operate without a Layer 3 device

**Answer:** BD

**Explanation:** <http://www.ciscopress.com/articles/article.asp?p=2180210&seqNum=5>

**NEW QUESTION 469**

Which statement describes the effect of the exec-timeout 30 command?

- A. The router maintains a user session indefinitely after it is active for 30 seconds.
- B. The router disconnects the user session if it is inactive for 30 minutes.
- C. The router maintains a user session indefinitely after it is active for 30 minutes.
- D. The router disconnects a user session if it is inactive for 30 seconds.

**Answer:** B

**NEW QUESTION 474**

An administrator has connected devices to a switch and, for security reasons, wants the dynamically learned MAC addresses from the address table added to the running configuration. Which action must be taken to accomplish this?

- A. Use the `switchport port-security` command to allow MAC addresses to be added to the configuration.
- B. Enable port security and use the `keyword sticky`.
- C. Set the switchport mode to trunk and save the running configuration.
- D. Use the `switchport protected` command to have the MAC addresses added to the configuration.

**Answer:** B

**NEW QUESTION 479**

Which NAT command can be applied to an interface?

- A. `ip nat inside`
- B. `ip nat inside test access-list-number pool pool-name`
- C. `ip nat inside source static 10.10.10.0 10.10.10.50`
- D. `ip nat pool test 10.10.10.0 10.10.10.50 255.255.255.0`

**Answer:** A

**NEW QUESTION 484**

Which port-security feature allows a switch to learn MAC addresses dynamically and add them to the running configuration?

- A. `security violation restrict mode`
- B. `switch port protection`
- C. `sticky learning`
- D. `security violation protect mode`

**Answer:** C

**Explanation:** You can configure an interface to convert the dynamic MAC addresses to sticky secure MAC addresses and to add them to the running configuration by enabling sticky learning. To enable sticky learning, enter the `switchport port-security mac-address sticky` interface configuration command. When you enter this command, the interface converts all the dynamic secure MAC addresses, including those that were dynamically learned before sticky learning was enabled, to sticky secure MAC addresses.

**NEW QUESTION 488**

A workstation has just resolved a browser URL to the IP address of a server. Which protocol will the workstation now use to determine the destination MAC address to be placed into frames directed toward the server?

- A. ARP
- B. RARP
- C. DNS
- D. DHCP
- E. HTTP

**Answer:** A

**NEW QUESTION 489**

You are performing the initial configuration on a new Cisco device. Drag the task from the left onto the required or optional category on the right.

**Answer:**

**Explanation:** [https://www.cisco.com/c/en/us/td/docs/routers/access/1900/software/configuration/guide/Software\\_Configuration.html](https://www.cisco.com/c/en/us/td/docs/routers/access/1900/software/configuration/guide/Software_Configuration.html)

**NEW QUESTION 490**

Which type does a port become when it receives the best BPDU on a bridge?

- A. the backup port
- B. the root port
- C. the designated port
- D. the alternate port

**Answer: B**

**NEW QUESTION 493**

A network associate is adding security to the configuration of the Corp1 router. The user on host C should be able to use a web browser to access financial information from the Finance Web Server. No other hosts from the LAN nor the Core should be able to use a web browser to access this server. Since there are multiple resources for the corporation at this location including other resources on the Finance Web Server, all other traffic should be allowed.

The task is to create and apply an access-list with no more than three statements that will allow ONLY host C web access to the Finance Web Server. No other hosts will have web access to the Finance Web Server. All other traffic is permitted.

Access to the router CLI can be gained by clicking on the appropriate host. All passwords have been temporarily set to "cisco".

The Core connection uses an IP address of 198.18.196.65.

The computers in the Hosts LAN have been assigned addresses of 192.168.33.1 - 192.168.33.254

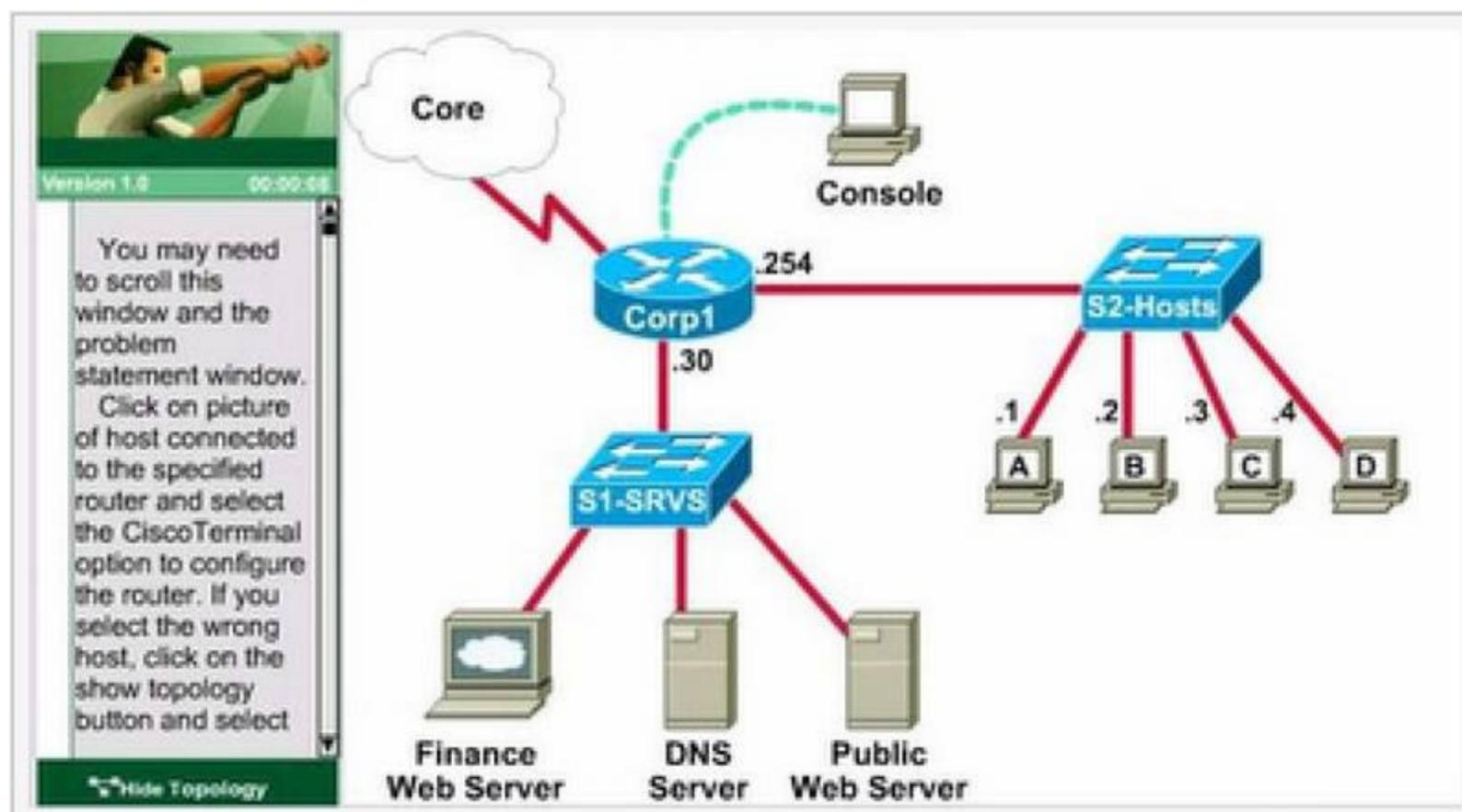
host A 192.168.33.1

host B 192.168.33.2

host C 192.168.33.3

host D 192.168.33.4

The servers in the Server LAN have been assigned addresses of 172.22.242.17 - 172.22.242.30. The Finance Web Server is assigned an IP address of 172.22.242.23.



**Answer:**

**Explanation:** Select the console on Corp1 router

Configuring ACL

Corp1>enable

Corp1#configure terminal

comment: To permit only Host C (192.168.33.3){source addr} to access finance server address (172.22.242.23) {destination addr} on port number 80 (web)

Corp1(config)#access-list 100 permit tcp host 192.168.33.3 host 172.22.242.23 eq 80

comment: To deny any source to access finance server address (172.22.242.23) {destination addr} on port number 80 (web)

Corp1(config)#access-list 100 deny tcp any host 172.22.242.23 eq 80

comment: To permit ip protocol from any source to access any destination because of the implicit deny any any statement at the end of ACL.

Corp1(config)#access-list 100 permit ip any any Applying the ACL on the Interface

comment: Check show ip interface brief command to identify the interface type and number by checking the IP address configured.

Corp1(config)#interface fa 0/1

If the ip address configured already is incorrect as well as the subnet mask. This should be corrected in order ACL to work

type this commands at interface mode :

no ip address 192.x.x.x 255.x.x.x (removes incorrect configured ipaddress and subnet mask) Configure Correct IP Address and subnet mask:

ip address 172.22.242.30 255.255.255.240 ( range of address specified going to server is given as 172.22.242.17 - 172.22.242.30 )

Comment: Place the ACL to check for packets going outside the interface towards the finance web server. Corp1(config-if)#ip access-group 100 out

Corp1(config-if)#end

Important: To save your running config to startup before exit. Corp1#copy running-config startup-config

Verifying the Configuration:

Step1: show ip interface brief command identifies the interface on which to apply access list.

Step2: Click on each host A, B, C, & D. Host opens a web browser page, Select address box of the web browser and type the ip address of finance web server (172.22.242.23) to test whether it permits /deny access to the finance web Server.

Step 3: Only Host C (192.168.33.3) has access to the server. If the other host can also access then maybe something went wrong in your configuration. Check whether you configured correctly and in order.

Step 4: If only Host C (192.168.33.3) can access the Finance Web Server you can click on NEXT button to successfully submit the ACL SIM.

**NEW QUESTION 496**

In which circumstance is static routing most useful?

- A. on a stub network
- B. on a network with frequent routingchanges
- C. on a network that experiences frequent link failures
- D. on a large network that must share routes quickly between routers

**Answer:** A

**NEW QUESTION 497**

Which two options will help to solve the problem of a network that is suffering a broadcast storm? (Choose two.)

- A. a Layer 3 switch
- B. a hub
- C. a bridge
- D. an access point
- E. a router

**Answer:** AE

**NEW QUESTION 502**

Which two statements about EIGRP on IPv6 networks are true? (Choose two)

- A. it is globally configured
- B. it is configured on the interface
- C. it supports a shutdown feature
- D. it is configured using a network statement
- E. it is a vendor agnostic.

**Answer:** BC

**Explanation:** <https://www.cisco.com/c/en/us/support/docs/ip/enhanced-interior-gateway-routing-protocol-eigrp/113267-eigrp->

**NEW QUESTION 506**

What are types of IPv6 static routes? (Choose Three )

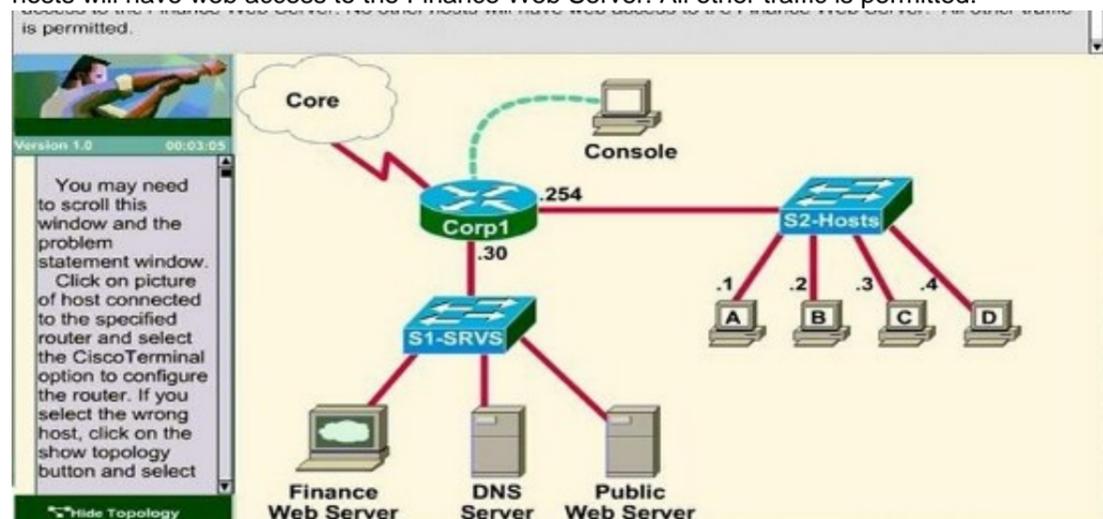
- A. Recursive Static routes
- B. Directly connected static routes
- C. Fully specified static routes
- D. Dynamically specified static routes
- E. injected static routes
- F. Redistributed static routes

**Answer:** ABC

**Explanation:** Static Routes  
Directly Attached Static Routes  
Recursive Static Routes  
Fully Specified Static Routes  
Floating Static Routes

**NEW QUESTION 510**

A network associate is adding security to the configuration of the Corp1 router. The user on host C should be able to use a web browser to access financial information from the Finance Web Server. No other hosts from the LAN nor the Core should be able to use a web browser to access this server. Since there are multiple resources for the corporation at this location including other resources on the Finance Web Server, all other traffic should be allowed. The task is to create and apply an access-list with no more than three statements that will allow ONLY host C web access to the Finance Web Server. No other hosts will have web access to the Finance Web Server. All other traffic is permitted.



Access to the router CLI can be gained by clicking on the appropriate host. All passwords have been temporarily set to "cisco".

The Core connection uses an IP address of 198.18.247.65

The computers in the Hosts LAN have been assigned addresses of 192.168.240.1 - 192.168.240.254

host A 192.168.240.1

host B 192.168.240.2

host C 192.168.240.3

**Answer:**

**Explanation:** Corp1#conf t

```
Corp1(config)# access-list 128 permit tcp host 192.168.240.1 host 172.22.141.26 eq www Corp1(config)# access-list 128 deny tcp any host 172.22.141.26 eq www
```

```
Corp1(config)# access-list 128 permit ip any any Corp1(config)#int fa0/1
```

```
Corp1(config-if)#ip access-group 128 out Corp1(config-if)#end
```

```
Corp1#copy run startup-config
```

**NEW QUESTION 513**

Which Cisco SDN controller supports existing enterprise network devices?

- A. APIC-EM
- B. OpenFlow
- C. Open SDN
- D. ACI

**Answer: C**

**NEW QUESTION 514**

Which two things does a router do when it forwards a packet? (Choose two.)

- A. determines the next hop on the path
- B. switches the packet to the appropriate outgoing interfaces
- C. computes the destination host address
- D. forwards ARP requests
- E. updates the destination IP address

**Answer: AB**

**NEW QUESTION 515**

Which two characteristics are representatives of a link-state routing protocol? (Choose two.)

- A. provides common view of entire topology
- B. exchanges routing tables for its own routes with neighbors
- C. calculates feasible path
- D. utilizes event-triggered updates
- E. utilizes frequent periodic updates

**Answer: AD**

**NEW QUESTION 516**

Which two statements about RIPv2 are true? (Choose two )

- A. It must be manually enabled after RIP is configured as the routing protocol
- B. It uses multicast address 224.0.0.2 to share routing information between peers
- C. its default administrative distance is 120
- D. It is a link-state routing protocol
- E. It is an EGP routing protocol

**Answer: AC**

**NEW QUESTION 518**

For which two protocols can PortFast alleviate potential host startup issues? (Choose two.)

- A. DHCP
- B. DNS
- C. OSPF
- D. RIP
- E. CDP

**Answer: AE**

**NEW QUESTION 522**

Which two VLANs are reserved for system use only? (Choose two.)

- A. 2
- B. 4095
- C. 1001
- D. 4096
- E. 1

**Answer: B**

**Explanation:**

VLANs	Range	Usage	Propagated by VTP
0, 4095	Reserved	For system use only. You cannot see or use these VLANs.	N/A
1	Normal	Cisco default. You can use this VLAN but you cannot delete it.	Yes
2-1001	Normal	Used for Ethernet VLANs; you can create, use, and delete these VLANs.	Yes
1002-1005	Normal	Cisco defaults for FDDI and Token Ring. You cannot delete VLANs 1002-1005.	Yes
1006-4094	Extended	For Ethernet VLANs only. When configuring extended-range VLANs, note the following: <ul style="list-style-type: none"> <li>Layer 3 ports and some software features require internal VLANs. Internal VLANs are allocated from 1006 and up. You cannot use a VLAN that has been allocated for such use. To display the VLANs used internally, enter the <b>show vlan internal usage</b> command.</li> <li>Switches running Catalyst product family software do not support configuration of VLANs 1006-1024. If you configure VLANs 1006-1024, ensure that the VLANs do not extend to any switches running Catalyst product family software.</li> <li>You must enable the extended system ID to use extended range VLANs. See the "Enabling the Extended System ID" section.</li> </ul>	No

**NEW QUESTION 527**

```
***ip dhcp pool my pool*****
***network 192.168.10.0/27***
***domain name cisco.com***
***name server some ip***
```

Dhcp client in the back can not communicate with hosts in the outside of their subnet ?

- A. need to activate dhcp pool
- B. need to configure default gateway
- C. other option
- D. other option

**Answer: B**

**NEW QUESTION 531**

Router R1 has a static route that is configured to a destination network. A directly connected interface is configured with an ip address in the same destination network . which statement about R1 is true ?

- A. R1 refuses to advertise the dynamic route to other neighbors
- B. R1 sends a withdrawal signal to the neighboring router
- C. R1 disables the routing protocol
- D. R1 prefers the directly connected interface

**Answer: D**

**NEW QUESTION 532**

Which statements is true about Router on Stick?

- A. When a router have multiple subnets on a single physical link.
- B. When a router have single subnet on multiple physical links.
- C. When a router have multiple interface on single physical links.
- D. When a router have single interface on multiple physical links

**Answer: A**

**NEW QUESTION 536**

Which three commands are required to enable NTP authentication on a Cisco router? (Choose three)

- A. ntp peer

- B. ntp max-associations
- C. ntp authenticate
- D. ntp trusted-key
- E. ntp authentication-key
- F. ntp refclock

**Answer:** CDE

**Explanation:** <http://blog.ine.com/2007/12/28/how-does-ntp-authentication-work/>

#### NEW QUESTION 540

Which three are the possible trunking modes for a switch port? (Choose three.)

- A. forwarding
- B. desirable
- C. transparent
- D. Auto
- E. on
- F. off

**Answer:** BDE

#### NEW QUESTION 544

Which feature automatically disables Cisco Express Forwarding when it is enabled?

- A. multicast
- B. IP redirects
- C. RIB
- D. ACL logging

**Answer:** D

**Explanation:** If you enable CiscoExpress Forwarding and then create an access list that uses the logkeyword, the packets that match the access list are not Cisco Express Forwarding switched. They are process switched. Logging disables Cisco Express Forwarding.

#### NEW QUESTION 549

Which protocol verifies connectivity between two switches that are configured with IP addresses in the same network?

- A. ICMP
- B. STP
- C. VTP
- D. HSRP

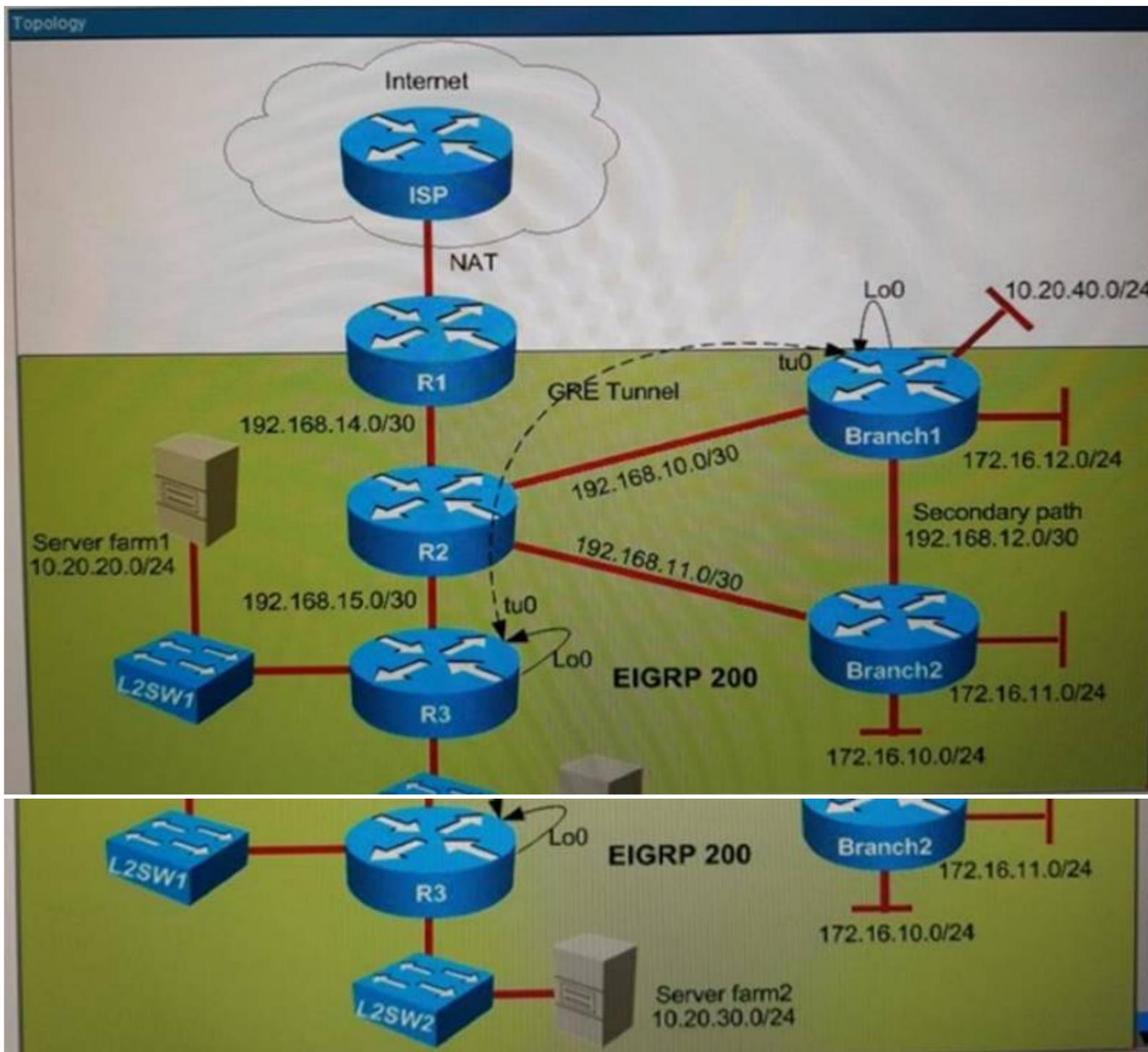
**Answer:** A

#### NEW QUESTION 553

You are implementing EIGRP between the main office and branch offices. In Phase 1 you must implement and verify EIGRP configurations as mentioned in the topology in Phase 2. your colleague is expected to do NAT and ISP configurations

Identify the issues that you are encountering during Phase 1 EIGRP implementation.

- Router R1 connects the main office to the Internet and routers R2 and R3 are internal routers
  - Routers Branch 1 and Branch2 connect to router R2 in the main office.
  - Users from the Branch1 LAN network 10 20 40 0724 are expected to perform testing of the application that is hosted on the servers in Server farm1, before servers are available for production
  - The GRE tunnel is configured between R3 and Branch1, and traffic between server farm1 and Branch1 LAN network 10 20 40 0/24 is routed through the GRE tunnel using static routes
  - The link between Branch1 and Branch2 is used as a secondary path in the event of failure of the primary path to mam office
- You have console access on R1. R2. R3. Branch1, and Branch2 devices Use only show commands to troubleshoot the issues
- Topology:



```

Branch1
ip address 10.20.40.1 255.255.255.0
:
:
router eigrp 200
 network 10.16.200.2 0.0.0.0
 network 172.16.12.0 0.0.0.255
 network 192.168.10.0
 network 192.168.12.0
:
ip forward-protocol nd
:
:
no ip http server
no ip http secure-server
ip route 10.20.20.0 255.255.255.0 Tunnel
:
:

```

```

R3
interface Ethernet0/0
  description ***Link to Server farm2***
  ip address 10.20.30.1 255.255.255.0
!
interface Ethernet0/1
  description ***Link to Server farm1***
  ip address 10.20.20.1 255.255.255.0
!
interface Ethernet0/2
  description ***Link to R2***
  ip address 192.168.15.2 255.255.255.252
!
interface Ethernet0/3
  no ip address
  shutdown

```

You are verifying the EIGRP configurations in the topology. Which statement is true?

- A. Branch2 LAN network 172.16.11.0/24 is not advertised into the EIGRP network.
- B. Branch2 LAN network 172.16.10.0/24 is not advertised into the EIGRP network
- C. R3 server farm2 network 10.20.30.0/24 is not advertised into the EIGRP network.
- D. Branch1 LAN network 172.16.12.0/24 is not advertised into the EIGRP network

**Answer: B**

**NEW QUESTION 556**

which command can you enter to verify that a router is synced with a configured time source ?

- A. Show ntp associations
- B. show ntp authenticate
- C. ntp server time
- D. ntp authenticate
- E. ntp associations

**Answer: A**

**NEW QUESTION 558**

Refer to the exhibit.

```

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

Gateway of last resort is 192.168.14.4 to network 0.0.0.0

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

```

What is the metric for the route from R1 to 192.168.10.1?

- A. 2
- B. 90
- C. 110
- D. 52778

**Answer:** D

**NEW QUESTION 563**

Which three circumstances can cause a GRE tunnel to be in an up/down state for site id:28254851? (Choose three.)

- A. The tunnel interface IP address is misconfigured.
- B. The tunnel source interface is down.
- C. A valid route to the destination address is missing from the routing table.
- D. The tunnel address is routed through the tunnel itself.
- E. The ISP is blocking the traffic.
- F. An ACL is blocking the outbound traffic.

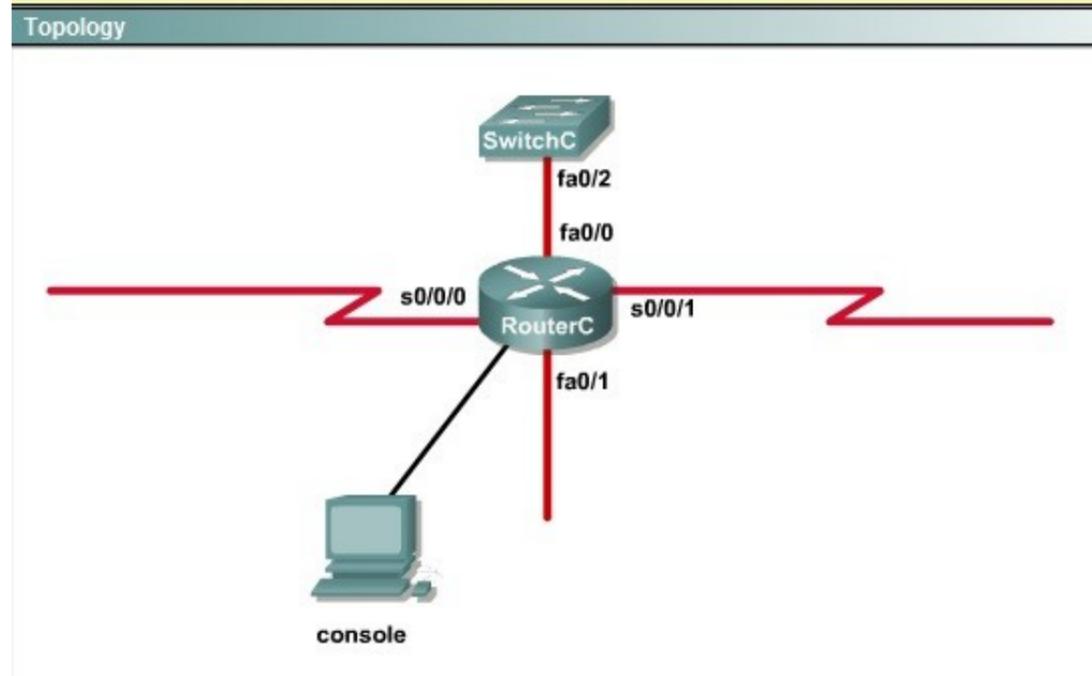
**Answer:** BCD

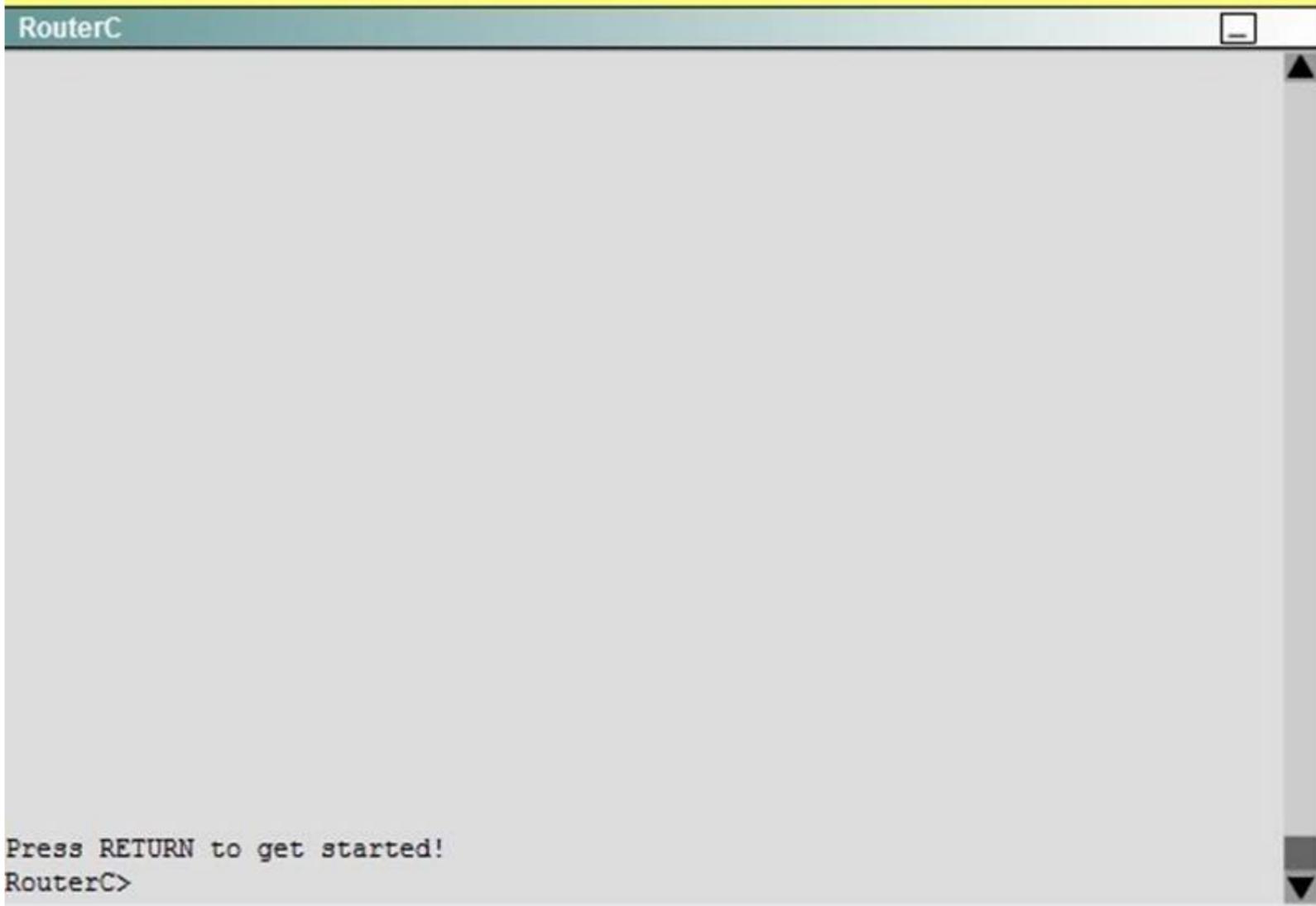
**NEW QUESTION 567**

An administrator is trying to ping and telnet from SwitchC to RouterC with the results shown below.

```
SwitchC>  
SwitchC> ping 10.4.4.3  
Type escape sequence to abort.  
Sending 5, 100-byte ICMP Echos to 10.4.4.3, timeout is 2 seconds:  
U.U.U  
Success rate is 0 percent (0/5)  
SwitchC>  
SwitchC> telnet 10.4.4.3  
Trying 10.4.4.3 ...  
% Destination unreachable; gateway or host down  
SwitchC>
```

Click the console connected to RouterC and issue the appropriate commands to answer the questions.





<output omitted>

```
interface Loopback1
 ip address 172.16.4.1.255.255.255.0
!
interface Loopback2
 ip address 10.145.145.1 255.255.255.0
 ipv6 address 2001:410:2:3::/64 eui-64
!
interface FastEthernet0/0
 ip address 10.4.4.3.255.255.255.0
 ip access-group 106 in
 duplex auto
 speed auto
!
interface FastEthernet0/1
 no ip address
 shutdown
 duplex auto
 speed auto
!
interface Serial0/0/0
 bandwidth 64
 no ip address
 ip access-group 102 out
 encapsulation frame-relay
 ip ospf authentication
 ip ospf authentication
 ip ospf authentication-key san-fran
!
interface Serial0/0/0.1 point-to-point
 ip address 10.140.3.2 255.255.255.0
 ip authentication mode eigrp 100 md5
 ip authentication key-chain eigrp 100 icndchain
 frame-relay interface-dlci 120
!
interface Serail0/0/1
 bandwidth 64
 ip address 10.45.45.1 255.255.255.0
 ip access-group 102 in
 ip authentication mode eigrp 100 md5
 ip authentication key-chain eigrp 100 icndchain
```

```
router eigrp 100
 network 10.0.0.0
 network 172.16.0.0
 network 192.168.2.0
 not auto-summary
!
router ospf 100
 log-adjacency-changes
 network 10.4.4.3 0.0.0.0 area 0
 network 10.45.45.1 0.0.0.0 area 0
 network 10.140.3.2 0.0.0.0 area 0
 network 192.168.2.62 0.0.0.0 area 0
!
router rip
 version 2
 network 10.0.0.0
 network 172.16.0.0
!
ip default-gateway 10.1.1.2
!
!
ip http server
no ip http secure-server
!
```

```

access-list 102 permit tcp any any eq ftp
access-list 102 permit tcp any any eq ftp-data
access-list 102 deny tcp any any eq telnet
access-list 102 deny icmp any any echo-reply
access-list 102 permit ip any any

access-list 104 permit tcp any any eq ftp
access-list 104 permit tcp any any eq ftp-data
access-list 104 deny tcp any any eq telnet
access-list 104 permit icmp any any echo
access-list 104 deny icmp any any echo-reply
access-list 104 permit ip any any

access-list 106 permit tcp any any eq ftp
access-list 106 permit tcp any any ftp-data
access-list 106 deny tcp any any eq telnet
access-list 106 permit icmp any any echo-reply
access-list 110 permit udp any any eq domain
access-list 110 permit udp any eq domain any
access-list 110 permit tcp any any eq domain
access-list 110 permit tcp any eq domain any
access-list 110 permit tcp any any

access-list 114 permit ip 10.4.4.0.0.0.255 any

access-list 115 permit ip 0.0.0.0 255.255.255.0 any

access-list 122 deny tcp any any
access-list 122 deny imp any any echo-reply
access-list 122 permit ip any any
!
<output omitted>

```

What would be the effect of issuing the command ip access-group 115 in on the s0/0/1 interface?

- A. No host could connect to RouterC through s0/0/1.
- B. Telnet and ping would work but routing updates would fail.
- C. FTP, FTP-DATA, echo, and www would work but telnet would fail.
- D. Only traffic from the 10.4.4.0 network would pass through the interface.

**Answer:** A

**Explanation:** First let's see what was configured on interface S0/0/1:

```

interface Serial0/0/1
 bandwidth 64
 ip address 10.45.45.1 255.255.255.0
 ip access-group 102 in

```

**NEW QUESTION 569**

What is the correct statement below after examining the R1 routing table?

- A. Traffic that is destined to 10.10.10.0/24 from R1 LAN network uses static route instead RIPv2 Because the static route AD that is configured is less than the AD of RIPv2
- B. Traffic that is destined to 10.10.10.0/24 from R1 LAN network uses RIPv2 instead static route Because the static route AD that is configured is higher than the AD of RIPv2
- C. Traffic that is destined to 10.10.10.0/24 from R1 LAN network uses static route instead RIPv2 But the traffic is forwarded to the ISP instead of the internal network.
- D. Traffic that is destined to 10.10.10.0/24 from R1 LAN network uses RIPv2 instead static route Because the static route AD that is configured is 255

**Answer:** B

**Explanation:**

Configuration are below for the answer.

```
R1
!
ip route 10.10.10.0 255.255.255.0 172.16.14.2 200
!
```

**NEW QUESTION 571**

Which option is the benefit of implementing an intelligent DNS for a cloud computing solution?

- A. It reduces the need for a backup data center.
- B. It can redirect user requests to locations that are using fewer network resources.
- C. It enables the ISP to maintain DNS records automatically.
- D. It eliminates the need for a GSS.

**Answer:** B

**NEW QUESTION 576**

Which Layer 2 protocol encapsulation type supports synchronous and asynchronous circuits and has built-in security mechanisms?

- A. HDLC
- B. PPP
- C. X.25
- D. Frame Relay

**Answer:** B

**Explanation:** PPP: Provides router-to-router and host-to-network connections over synchronous and asynchronous circuits. PPP was designed to work with several network layer protocols, including IP. PPP also has built-in security mechanisms, such as Password Authentication Protocol (PAP) and Challenge Handshake Authentication Protocol (CHAP).

**NEW QUESTION 578**

Which configuration register value can you set on a cisco device so that it ignores the nvram when it boots ?

- A. 0x2120
- B. 0x2124
- C. 0x2102
- D. 0x2142

**Answer:** D

**NEW QUESTION 582**

Which command would you configure globally on a Cisco router that would allow you to view directly connected Cisco devices?

- A. enable cdp
- B. cdp enable
- C. cdp run
- D. run cdp

**Answer:** C

**Explanation:** CDP is enabled on Cisco routers by default. If you prefer not to use the CDP capability, disable it with the no cdp run command. In order to reenabling CDP, use the cdp run command in global configuration mode. The "cdp enable" command is an interface command, not global.

**NEW QUESTION 587**

In which two formats can the IPv6 address fd15:0db8:0000:0000:0700:0003:400F:572B be written? (Choose two.)

- A. fd15:0db8:0000:0000:700:3:400F:572B
- B. fd15::db8::700:3:400F:572B
- C. fd15:db8:0::700:3:4F:527B
- D. fd15:0db8::7:3:4F:527B
- E. fd15:db8::700:3:400F:572B

**Answer:** AE

**NEW QUESTION 588**

What are three characteristics of the TCP protocol? (Choose three.)

- A. It uses a single SYN-ACK message to establish a connection.
- B. The connection is established before data is transmitted.
- C. It ensures that all data is transmitted and received by the remote device.
- D. It supports significantly higher transmission speeds than UDP.
- E. It requires applications to determine when data packets must be retransmitted.

F. It uses separate SYN and ACK messages to establish a connection.

**Answer:** BCF

**NEW QUESTION 590**

Drag and drop the CSMA components from the left onto the correct descriptions on the right

1-persistent	access mode used for Ethernet networks
CSMA/CA	access mode used for Wi-Fi networks
CSMA/CD	access mode used in the controller area network
O-persistent	rules that define the system response when a collision occurs on an Ethernet network
P-persistent	rules that define the system response when a collision occurs on a Wi-Fi network

**Answer:**

**Explanation:** Access mode used for Ethernet networks = 1-Persistent

Access mode used for Wi-fi networks = P-Persistent

Access mode used in the controller area network = O-persistent

Rules that define the system response when a collision occurs on an Ethernet network = CSMA/CD Rules that define the system response when a collision occurs

on a Wi-Fi network = CSMA/CA

**NEW QUESTION 592**

Which of the following is a security best practice?

- A. Use multifactor VPN authentication.
- B. Use only commercially licensed software
- C. Use only WiFi instead of Ethernet cabling
- D. use only solid state hard drives in servers.

**Answer:** A

**NEW QUESTION 595**

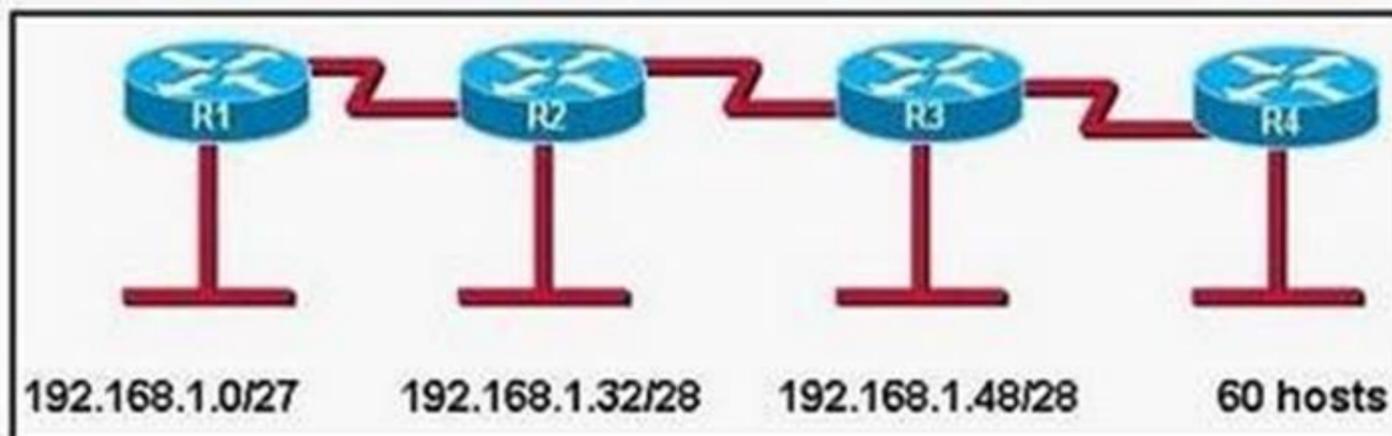
Which two statements about IPv6 and routing protocols are true? (Choose two.)

- A. Link-local addresses are used to form routing adjacencies.
- B. OSPFv3 was developed to support IPv6 routing.
- C. EIGRP, OSPF, and BGP are the only routing protocols that support IPv6.
- D. Loopback addresses are used to form routing adjacencies.
- E. EIGRPv3 was developed to support IPv6 routing.

**Answer:** AB

**NEW QUESTION 599**

Refer to the exhibit.



A new subnet with 60 hosts has been added to the network. Which subnet address should this network use to provide enough usable addresses while wasting the fewest addresses?

- A. 192.168.1.56/26
- B. 192.168.1.56/27
- C. 192.168.1.64/26
- D. 192.168.1.64/27

**Answer:** C

**Explanation:** A subnet with 60 host is  $2^2 \times 2^2 \times 2^2 \times 2^2 = 64 - 2 == 62$   
 6 bits needed for hosts part. Therefore subnet bits are 2 bits (8-6) in fourth octet.  $8\text{bits} + 8\text{bits} + 8\text{bits} + 2\text{bits} = /26$   
 /26 bits subnet is  $24\text{bits} + 11000000 = 24\text{bits} + 192\ 256 - 192 = 64$   
 0 -63  
 64 - 127

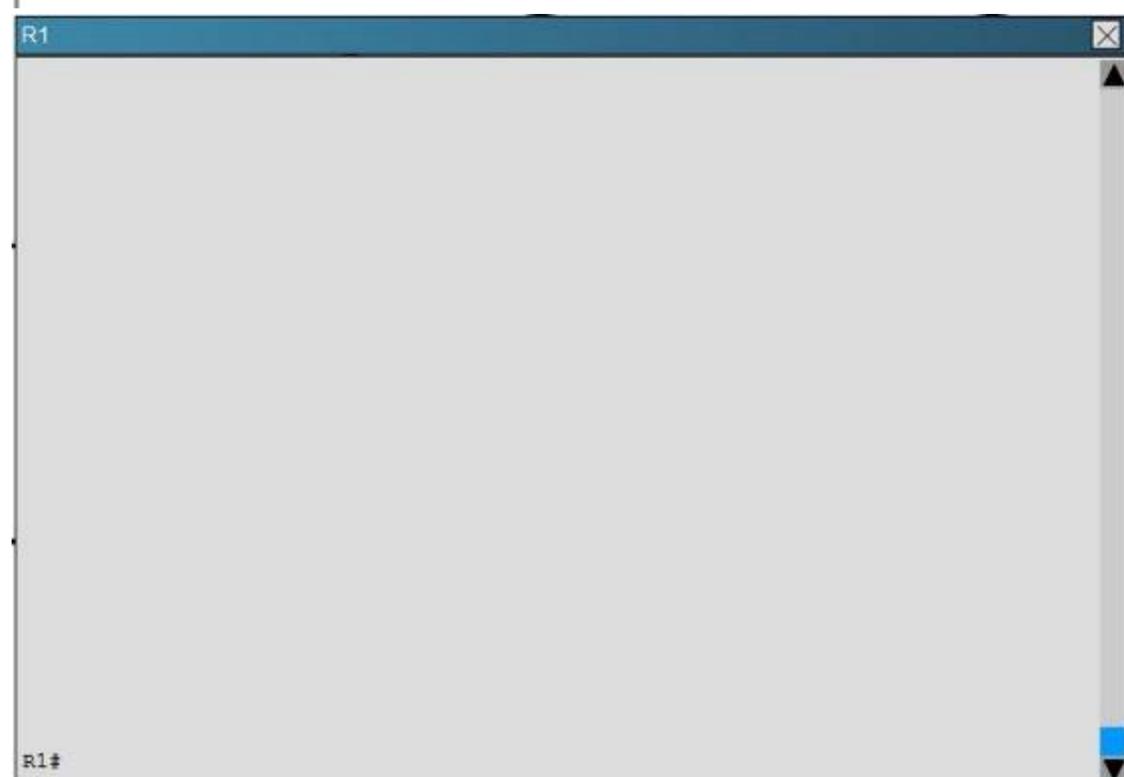
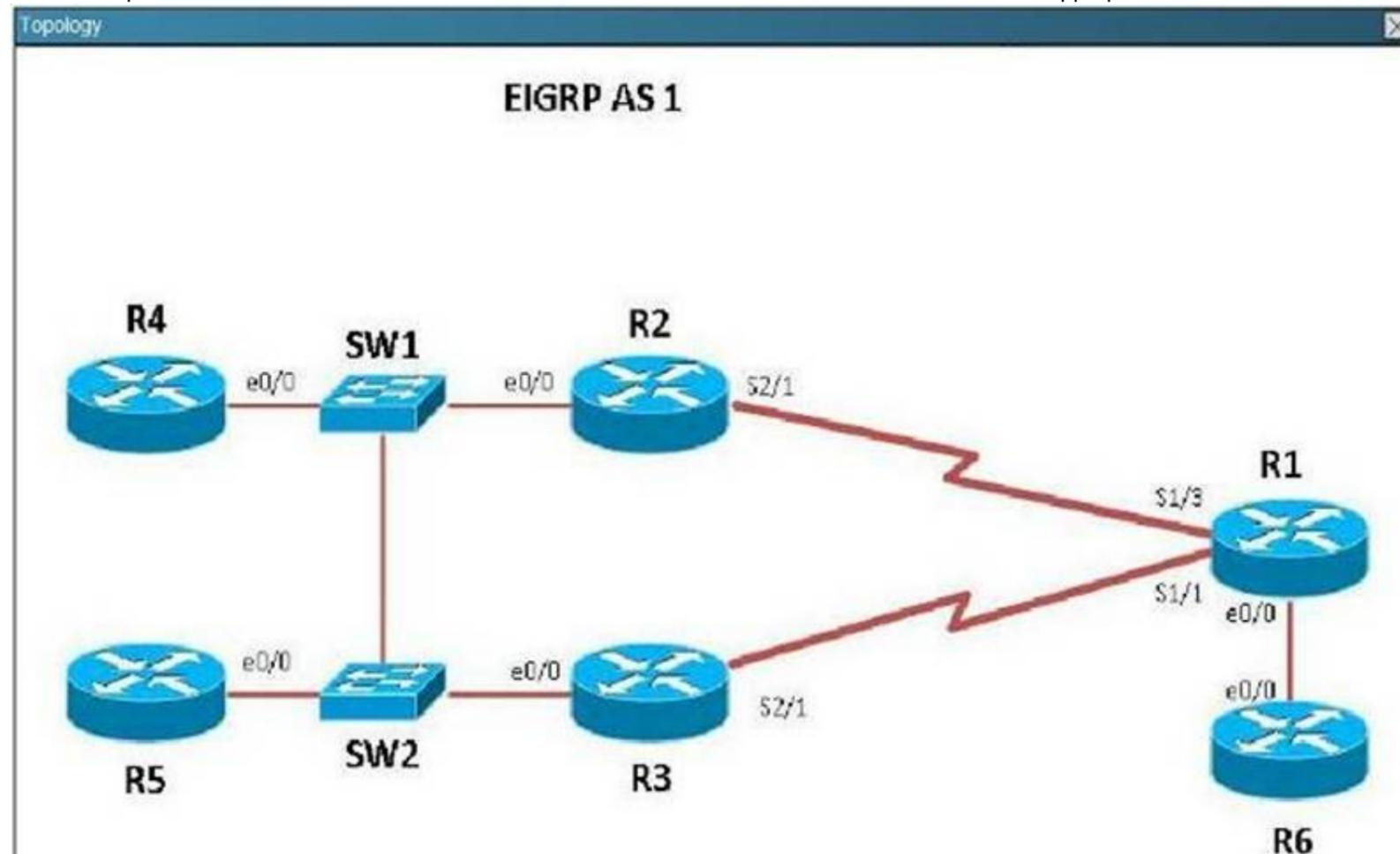
**NEW QUESTION 600**

Scenario

Refer to the topology. Your company has connected the routers R1, R2, and R3 with serial links. R2 and R3 are connected to the switches SW1 and SW2, respectively. SW1 and SW2 are also connected to the routers R4 and R5.

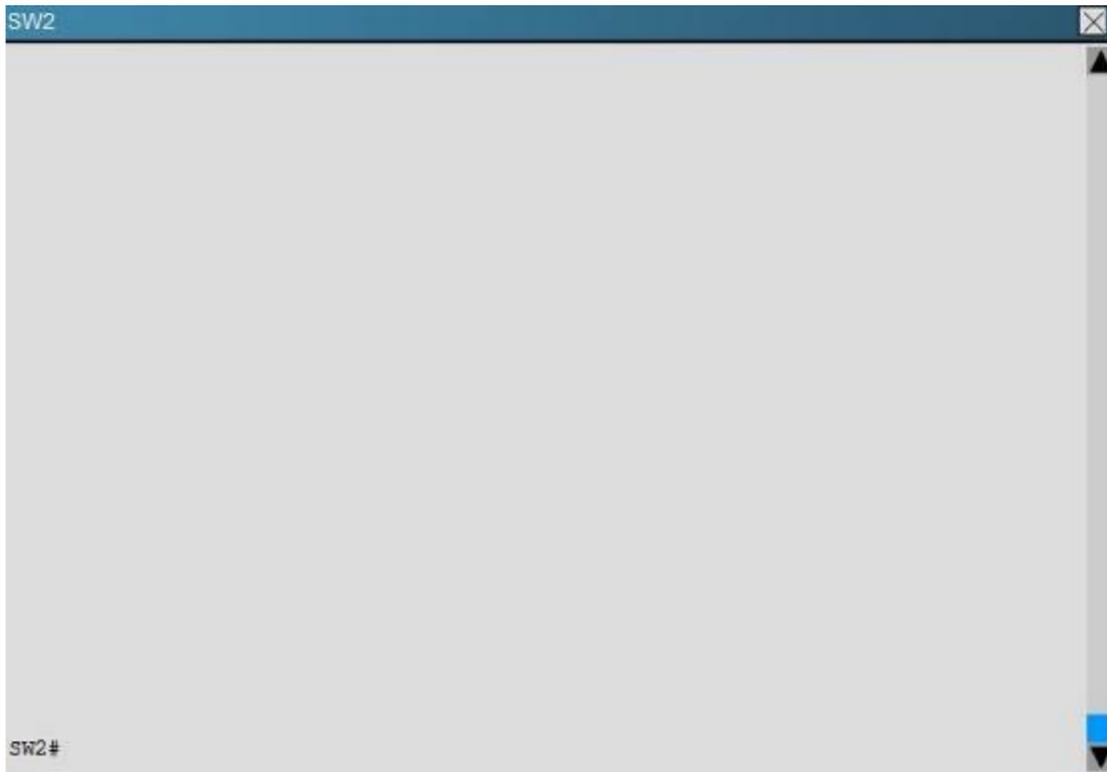
The EIGRP routing protocol is configured.

You are required to troubleshoot and resolve the EIGRP issues between the various routers. Use the appropriate show commands to troubleshoot the issues.



The image displays three vertically stacked, empty rectangular panels. Each panel has a dark blue title bar at the top with a close button (X) on the right. The panels are labeled 'R2', 'R3', and 'R4' in their respective title bars. Below each title bar is a large, light gray area, which appears to be a scrollable content area, indicated by a vertical scroll bar on the right side of each panel. The labels 'R2#', 'R3#', and 'R4#' are visible in the bottom-left corner of each panel's content area. The panels are separated by thin white lines.

The image displays three vertically stacked terminal windows, each with a title bar and a scrollable content area. The top window is titled 'R5' and contains the text 'R5#' at the bottom left. The middle window is titled 'R6' and contains the text 'R6#' at the bottom left. The bottom window is titled 'SW1' and contains the text 'sw1#' at the bottom left. Each window has a blue title bar with a close button (X) on the right. The content areas are light gray and mostly empty, with only the respective hostnames visible.

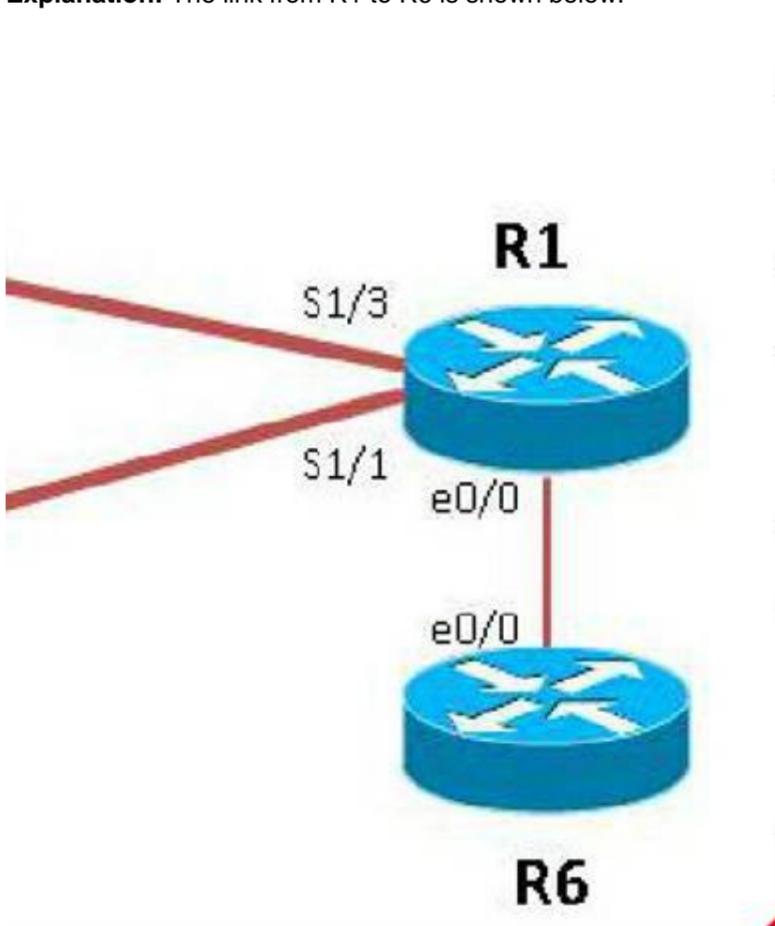


Router R6 does not form an EIGRP neighbor relationship correctly with router R1. What is the cause for this misconfiguration?

- A. The K values mismatch.
- B. The AS does not match.
- C. The network command is missing.
- D. The passive interface command is enabled.

**Answer: C**

**Explanation:** The link from R1 to R6 is shown below:



As you can see, they are both using e0/0. The IP addresses are in the 192.168.16.0 network:

R1				R6						
Interface	IP-Address	OK?	Method	Status	Interface	IP-Address	OK?	Method	Status	Prot
Ethernet0/0	192.168.16.1	YES	NVRAM	up	Ethernet0/0	192.168.16.6	YES	NVRAM	up	up
Ethernet0/1	unassigned	YES	NVRAM	administratively down	Ethernet0/1	unassigned	YES	NVRAM	administratively down	down
Ethernet0/2	unassigned	YES	NVRAM	administratively down	Ethernet0/2	unassigned	YES	NVRAM	administratively down	down
Ethernet0/3	unassigned	YES	NVRAM	administratively down	Ethernet0/3	unassigned	YES	NVRAM	administratively down	down
Serial1/0	unassigned	YES	NVRAM	administratively down	Serial1/0	unassigned	YES	NVRAM	administratively down	down
Serial1/1	192.168.13.1	YES	NVRAM	up	Serial1/1	unassigned	YES	NVRAM	up	down
Serial1/2	unassigned	YES	NVRAM	administratively down	Serial1/2	unassigned	YES	NVRAM	administratively down	down
Serial1/3	192.168.12.1	YES	NVRAM	up	Serial1/3	unassigned	YES	NVRAM	administratively down	down
Serial2/0	unassigned	YES	NVRAM	administratively down	Loopback0	10.6.6.6	YES	NVRAM	up	up
Serial2/1	unassigned	YES	NVRAM	administratively down						
Serial2/2	unassigned	YES	NVRAM	administratively down						

But when we look at the EIGRP configuration, the "network 192.168.16.0" command is missing on R6.

R1	R6
<pre> shutdown serial restart-delay 0 ! interface Serial2/1 no ip address serial restart-delay 0 ! interface Serial2/2 no ip address shutdown serial restart-delay 0 ! interface Serial2/3 no ip address shutdown serial restart-delay 0 ! router eigrp 1 network 192.168.12.0 network 192.168.13.0 network 192.168.16.0 ! ip forward-protocol nd </pre>	<pre> serial restart-delay 0 ! interface Serial1/1 no ip address serial restart-delay 0 ! interface Serial1/2 no ip address shutdown serial restart-delay 0 ! interface Serial1/3 no ip address shutdown serial restart-delay 0 ! router eigrp 1 network 10.6.6.6 0.0.0.0 ! ip forward-protocol nd ! no ip http server </pre>

**NEW QUESTION 604**

What are three features of the IPv6 protocol? (Choose three.)

- A. optional IPsec
- B. autoconfiguration
- C. no broadcasts
- D. complicated header
- E. plug-and-play
- F. checksums

**Answer:** BCE

**Explanation:** An important feature of IPv6 is that it allows plug and play option to the network devices by allowing them to configure themselves independently. It is possible to plug a node into an IPv6 network without requiring any human intervention. This feature was critical to allow network connectivity to an increasing number of mobile devices. This is accomplished by autoconfiguration.

IPv6 does not implement traditional IP broadcast, i.e. the transmission of a packet to all hosts on the attached link using a special broadcast address, and therefore does not define broadcast addresses. In IPv6, the same result can be achieved by sending a packet to the link-local all nodes multicast group at address ff02::1, which is analogous to IPv4 multicast to address 224.0.0.1.

**NEW QUESTION 609**

Drag and drop the IPv6 IP addresses from the left onto the correct IPv6 address types on the right

::	modified EUI-64
2020:10DB:0:0:85AB:800:52:734B	multicast
D8:FC:93:FF:FE:D8:05:0A	unicast
FF01::1	unspecified

**Answer:**

**Explanation:** FF01::1 = multicast  
= unspecified  
2020:10DB:0:0:85AB:800:52:7348 = Modified EUI-64 DB:FC:93:FF:FE:DB:05:0A = unicast

#### NEW QUESTION 610

In which STP state does MAC address learning take place on a PortFast-enabled port?

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

**Answer:** D

**Explanation:** <http://www.omniseku.com/cisco-certified-network-associate-ccna/spanning-tree-port-states.php>

#### NEW QUESTION 611

Which two are features of IPv6? (Choose two.)

- A. anycast
- B. broadcast
- C. multicast
- D. podcast
- E. allcast

**Answer:** AC

**Explanation:** IPv6 addresses are classified by the primary addressing and routing methodologies common in networking: unicast addressing, anycast addressing, and multicast addressing.

A unicast address identifies a single network interface. The Internet Protocol delivers packets sent to a unicast address to that specific interface.

An anycast address is assigned to a group of interfaces, usually belonging to different nodes. A packet sent to an anycast address is delivered to just one of the member interfaces, typically the nearest host, according to the routing protocol's definition of distance. Anycast addresses cannot be identified easily, they have the same format as unicast addresses, and differ only by their presence in the network at multiple points. Almost any unicast address can be employed as an anycast address.

A multicast address is also used by multiple hosts, which acquire the multicast address destination by participating in the multicast distribution protocol among the network routers. A packet that is sent to a multicast address is delivered to all interfaces that have joined the corresponding multicast group.

#### NEW QUESTION 616

Scenario:

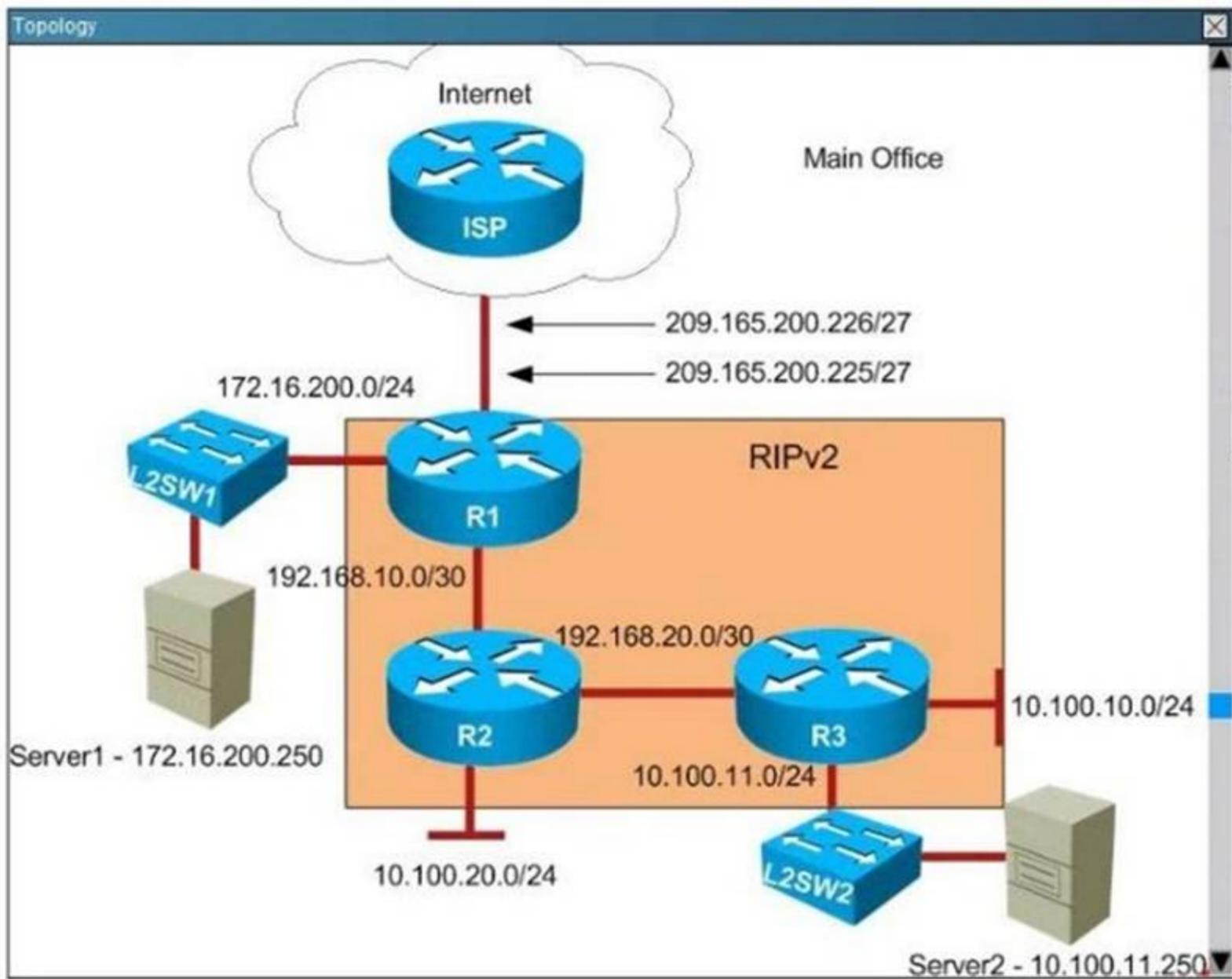
You are a junior network engineer for a financial company, and the main office network is experiencing network issues. Troubleshoot the network issues.

Router R1 connects the main office to the internet, and routers R2 and R3 are internal routers. NAT is enabled on router R1.

The routing protocol that is enabled between routers R1, R2 and R3 is RIPv2.

R1 sends the default route into RIPv2 for the internal routers to forward internet traffic to R1.

You have console access on R1, R2 and R3 devices. Use only show commands to troubleshoot the issues.



```

R1
Current configuration : 1651 bytes
!
! No configuration change since last restart
version 15.2
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname R1
!
boot-start-marker
boot-end-marker
!
!
!
no aaa new-model
clock timezone PST -8 0
mmi polling-interval 60
no mmi auto-configure
no mmi pvc
mmi snmp-timeout 180
!
!
!
--- More (105) ---
    
```



```
R1
ip access-list extended LOCAL
 permit ip host 127.0.0.1 any
!
!
!
!
!
control-plane
!
!
!
!
!
!
!
!
!
!
line con 0
 logging synchronous
line aux 0
line vty 0 4
 login
 transport input all
!
ntp server 209.165.200.226
!
end
R1#
```

```
R2
Building configuration...

Current configuration : 1243 bytes
!
version 15.2
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname R2
!
boot-start-marker
boot-end-marker
!
!
!
no aaa new-model
clock timezone PST -8 0
mmi polling-interval 60
no mmi auto-configure
no mmi pvc
mmi snmp-timeout 180
!
!
!
--- More (92) ---
```

```
R2
version 15.2
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname R2
!
boot-start-marker
boot-end-marker
!
!
!
no aaa new-model
clock timezone PST -8 0
mmi polling-interval 60
no mmi auto-configure
no mmi pvc
mmi snmp-timeout 180
!
!
!
!
```





```

R3
!
no ip http server
no ip http secure-server
!
!
!
!
!
!
control-plane
!
!
!
!
!
!
!
!
!
!
line con 0
 logging synchronous
line aux 0
line vty 0 4
 login
 transport input all
!
!
end
R3#

```

Why applications that are installed on PC's in R2 LAN network 10.100.20.0/24 are unable to communicate with server1?

- A. A standard ACL statement that is configured on R1 is blocking the traffic sourced from Server1 network.
- B. A standard ACL statement that is configured on R2 is blocking the traffic sourced from Setver1 network.
- C. A standard ACL statement that is configured on R2 is blocking the traffic sourced from R2 LAN network.
- D. A standard ACL statement that is configured on R1 is blocking the traffic sourced from R2 LAM network

**Answer: B**

**Explanation:** Check the below now:

<pre> R2 ! ip access-list standard SERVER1BLOCK deny 172.16.200.0 0.0.0.255 permit any ! ! </pre>	<pre> R2 ! ! ! ! ! interface Loopback0  ip address 192.168.250.2 255.255.255.255 ! interface Ethernet0/0  description ***Link to R3***  ip address 192.168.20.1 255.255.255.255 ! interface Ethernet0/1  no ip address ! interface Ethernet0/2  description ***Link to R1***  ip address 192.168.10.2 255.255.255.252  ip access-group SERVER1BLOCK in ! ! </pre>
---	---

**NEW QUESTION 619**

After you configure the ip dns spoofing command globally on a device, under which two conditions is DNS spoofing enabled on the device? (Choose two)

- A. The ip dns spoofing command is disabled on the local interface
- B. The ip host command is disabled
- C. All configured IP name server addresses are removed
- D. The DNS server queue limit is disabled
- E. The no ip domain lookup command is configured

**Answer: BD**

**Explanation:** [https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipaddr\\_dns/configuration/15-mt/dns-15-mt-book/dns-config-](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipaddr_dns/configuration/15-mt/dns-15-mt-book/dns-config-)







```

R1
!
line con 0
  logging synchronous
line aux 0
line vty 0 4
  login
  transport input all
!
!
end
R1#show interfaces
Ethernet0/0 is up, line protocol is up
  Hardware is AndP2, address is aabb.cc00.4100 (bia aabb.cc00.4100)
  Description: ***Link to ISP***
  Internet address is 209.165.201.1/27
  MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:53, output 00:00:07, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)

```

```

R1
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
  40 packets input, 11786 bytes, 0 no buffer
  Received 39 broadcasts (0 IP multicasts)
  0 runts, 0 giants, 0 throttles
  0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
  0 input packets with dribble condition detected
  191 packets output, 20271 bytes, 0 underruns
  0 output errors, 0 collisions, 1 interface resets
  4 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
Ethernet0/1 is up, line protocol is up
  Hardware is AndP2, address is aabb.cc00.4110 (bia aabb.cc00.4110)
  Description: ***Link to LAN***
  Internet address is 172.16.16.1/24
  MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  ARP type: ARPA, ARP Timeout 04:00:00

```

```

R1
Keepalive set (10 sec)
ARP type: ARPA, ARP Timeout 04:00:00
Last input never, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
  0 packets input, 0 bytes, 0 no buffer
  Received 0 broadcasts (0 IP multicasts)
  0 runts, 0 giants, 0 throttles
  0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
  0 input packets with dribble condition detected
 245 packets output, 30725 bytes, 0 underruns
  0 output errors, 0 collisions, 4 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
Ethernet0/2 is up, line protocol is up
Hardware is AndP2, address is aabb.cc00.4120 (bia aabb.cc00.4120)
Description: ***Link to R2***
Internet address is 172.16.14.1/30
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,

```

```

R1
Internet address is 172.16.14.1/30
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:16, output 00:00:07, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
 98 packets input, 20097 bytes, 0 no buffer
  Received 97 broadcasts (54 IP multicasts)
  0 runts, 0 giants, 0 throttles
  0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
  0 input packets with dribble condition detected
 247 packets output, 25359 bytes, 0 underruns
  0 output errors, 0 collisions, 1 interface resets
  4 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
Ethernet0/3 is administratively down, line protocol is down

```

```

R1
 0 output buffer failures, 0 output buffers swapped out
Ethernet0/3 is administratively down, line protocol is down
Hardware is Am2P2, address is aabb.cc00.4130 (bia aabb.cc00.4130)
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
ARP type: ARPA, ARP Timeout 04:00:00
Last input never, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
 0 packets input, 0 bytes, 0 no buffer
Received 0 broadcasts (0 IP multicasts)
 0 runts, 0 giants, 0 throttles
 0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
 0 input packets with dribble condition detected
 0 packets output, 0 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

```

```

R1
 0 babbles, 0 late collision, 0 deferred
 0 lost carrier, 0 no carrier
 0 output buffer failures, 0 output buffers swapped out
NVI0 is up, line protocol is up
Hardware is NVI
Interface is unnumbered. Using address of Ethernet0/0 (209.165.201.1)
MTU 1514 bytes, BW 56 Kbit/sec, DLY 5000 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Encapsulation UNKNOWN, loopback not set
Keepalive set (10 sec)
Last input never, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
 0 packets input, 0 bytes, 0 no buffer
Received 0 broadcasts (0 IP multicasts)
 0 runts, 0 giants, 0 throttles
 0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
 0 packets output, 0 bytes, 0 underruns
 0 output errors, 0 collisions, 0 interface resets
 0 unknown protocol drops
 0 output buffer failures, 0 output buffers swapped out
R1#
R1#show ip interface brief

```

```

R1
R1#
R1#show ip interface brief
Interface          IP-Address      OK? Method Status  Prot
ocol
Ethernet0/0        209.165.201.1  YES NVRAM  up      up
Ethernet0/1        172.16.16.1    YES NVRAM  up      up
Ethernet0/2        172.16.14.1    YES NVRAM  up      up
Ethernet0/3        unassigned     YES NVRAM  admini  down
stratively      209.165.201.1  YES unset  up      up
down
R1#
R1#
R1#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static route
o - ODR, P - periodic downloaded static route, H - NHRP, l - LISP
+ - replicated route, % - next hop override

Gateway of last resort is not set

10.0.0.0/24 is subnetted, 1 subnets
R    10.10.10.0 [120/1] via 172.16.14.2, 00:00:20, Ethernet0/2

```

```

R1
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static route
o - ODR, P - periodic downloaded static route, H - NHRP, l - LISP
+ - replicated route, % - next hop override

Gateway of last resort is not set

10.0.0.0/24 is subnetted, 1 subnets
R    10.10.10.0 [120/1] via 172.16.14.2, 00:00:20, Ethernet0/2
172.16.0.0/16 is variably subnetted, 5 subnets, 3 masks
R    172.16.11.0/30 [120/1] via 172.16.14.2, 00:00:20, Ethernet0/2
C    172.16.14.0/30 is directly connected, Ethernet0/2
L    172.16.14.1/32 is directly connected, Ethernet0/2
C    172.16.16.0/24 is directly connected, Ethernet0/1
L    172.16.16.1/32 is directly connected, Ethernet0/1
R    192.168.1.0/24 [120/1] via 172.16.14.2, 00:00:20, Ethernet0/2
R    192.168.100.0/24 [120/1] via 172.16.14.2, 00:00:20, Ethernet0/2
R    192.168.200.0/24 [120/1] via 172.16.14.2, 00:00:20, Ethernet0/2
209.165.201.0/24 is variably subnetted, 2 subnets, 2 masks
C    209.165.201.0/27 is directly connected, Ethernet0/0
L    209.165.201.1/32 is directly connected, Ethernet0/0
R1#
R1#

```







```

R2
R2#show interfaces
Ethernet0/0 is up, line protocol is up
  Hardware is AndP2, address is aabb.cc00.4200 (bia aabb.cc00.4200)
  Description: ***Link to R3***
  Internet address is 172.16.11.1/30
  MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:32, output 00:00:08, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    50 packets input, 15683 bytes, 0 no buffer
    Received 50 broadcasts (0 IP multicasts)
    0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
    0 input packets with dribble condition detected
    343 packets output, 42566 bytes, 0 underruns
    0 output errors, 0 collisions, 1 interface resets
    2 unknown protocol drops
  
```

```

R2
  2 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
Ethernet0/1 is up, line protocol is up
  Hardware is AndP2, address is aabb.cc00.4210 (bia aabb.cc00.4210)
  MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:00, output 00:00:08, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 1000 bits/sec, 2 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    4632 packets input, 308536 bytes, 0 no buffer
    Received 4421 broadcasts (0 IP multicasts)
    0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
    0 input packets with dribble condition detected
    512 packets output, 73148 bytes, 0 underruns
    0 output errors, 0 collisions, 0 interface resets
  
```

```

R2
512 packets output, 73148 bytes, 0 underruns
0 output errors, 0 collisions, 0 interface resets
73 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
Ethernet0/1.1 is up, line protocol is up
Hardware is AndP2, address is aabb.cc00.4210 (bia aabb.cc00.4210)
Description: ***Link to Mangement Segment***
Internet address is 192.168.1.1/24
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
Encapsulation 802.1Q Virtual LAN, Vlan ID 1.
ARP type: ARPA, ARP Timeout 04:00:00
Keepalive set (10 sec)
Last clearing of "show interface" counters never
Ethernet0/1.100 is up, line protocol is up
Hardware is AndP2, address is aabb.cc00.4210 (bia aabb.cc00.4210)
Description: ***Link to Server1 Segment***
Internet address is 192.168.100.1/24
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
Encapsulation 802.1Q Virtual LAN, Vlan ID 200.
ARP type: ARPA, ARP Timeout 04:00:00
Keepalive set (10 sec)

```

```

R2
Keepalive set (10 sec)
Last clearing of "show interface" counters never
Ethernet0/1.100 is up, line protocol is up
Hardware is AndP2, address is aabb.cc00.4210 (bia aabb.cc00.4210)
Description: ***Link to Server1 Segment***
Internet address is 192.168.100.1/24
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
Encapsulation 802.1Q Virtual LAN, Vlan ID 200.
ARP type: ARPA, ARP Timeout 04:00:00
Keepalive set (10 sec)
Last clearing of "show interface" counters never
Ethernet0/1.200 is up, line protocol is up
Hardware is AndP2, address is aabb.cc00.4210 (bia aabb.cc00.4210)
Description: ***Link to Server2 Segment***
Internet address is 192.168.200.1/24
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
Encapsulation 802.1Q Virtual LAN, Vlan ID 100.
ARP type: ARPA, ARP Timeout 04:00:00
Keepalive set (10 sec)
Last clearing of "show interface" counters never
Ethernet0/2 is up, line protocol is up
Hardware is AndP2, address is aabb.cc00.4220 (bia aabb.cc00.4220)
Description: ***Link to R1***

```

```

R2
Description: ***Link to R1***
Internet address is 172.16.14.2/30
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:08, output 00:00:02, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
 128 packets input, 21994 bytes, 0 no buffer
  Received 127 broadcasts (77 IP multicasts)
   0 runts, 0 giants, 0 throttles
   0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
   0 input packets with dribble condition detected
 345 packets output, 39952 bytes, 0 underruns
   0 output errors, 0 collisions, 1 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
  
```

```

R2
0 output buffer failures, 0 output buffers swapped out
Ethernet0/3 is up, line protocol is up
Hardware is AmdP2, address is aabb.cc00.4230 (bia aabb.cc00.4230)
Description: ***Link to LAN***
Internet address is 10.10.10.1/24
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
ARP type: ARPA, ARP Timeout 04:00:00
Last input never, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
  0 packets input, 0 bytes, 0 no buffer
  Received 0 broadcasts (0 IP multicasts)
   0 runts, 0 giants, 0 throttles
   0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
   0 input packets with dribble condition detected
 344 packets output, 42752 bytes, 0 underruns
   0 output errors, 0 collisions, 6 interface resets
   0 unknown protocol drops
  
```

```

R2
0 output errors, 0 collisions, 6 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
R2#
R2#
R2#show ip interface brief
Interface          IP-Address      OK? Method Status      Prot
ocol
Ethernet0/0        172.16.11.1     YES NVRAM  up          up
Ethernet0/1        unassigned      YES NVRAM  up          up
Ethernet0/1.1      192.168.1.1     YES NVRAM  up          up
Ethernet0/1.100    192.168.100.1   YES NVRAM  up          up
Ethernet0/1.200    192.168.200.1   YES NVRAM  up          up
Ethernet0/2        172.16.14.2     YES NVRAM  up          up
Ethernet0/3        10.10.10.1      YES NVRAM  up          up
R2#
R2#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static route

```

```

R2
R2#
R2#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static route
o - ODR, P - periodic downloaded static route, H - NHRP, l - LISP
+ - replicated route, % - next hop override

Gateway of last resort is 172.16.14.1 to network 0.0.0.0

R*  0.0.0.0/0 [120/1] via 172.16.14.1, 00:00:23, Ethernet0/2
10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C    10.10.10.0/24 is directly connected, Ethernet0/3
L    10.10.10.1/32 is directly connected, Ethernet0/3
172.16.0.0/16 is variably subnetted, 5 subnets, 3 masks
C    172.16.11.0/30 is directly connected, Ethernet0/0
L    172.16.11.1/32 is directly connected, Ethernet0/0
C    172.16.14.0/30 is directly connected, Ethernet0/2
L    172.16.14.2/32 is directly connected, Ethernet0/2
R    172.16.16.0/24 [120/1] via 172.16.14.1, 00:00:23, Ethernet0/2
192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C    192.168.1.0/24 is directly connected, Ethernet0/1.1

```

```

R2
o - ODR, P - periodic downloaded static route, H - MHRP, I - LISP
+ - replicated route, \ - next hop override

Gateway of last resort is 172.16.14.1 to network 0.0.0.0

R* 0.0.0.0/0 [120/1] via 172.16.14.1, 00:00:23, Ethernet0/2
10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C 10.10.10.0/24 is directly connected, Ethernet0/3
L 10.10.10.1/32 is directly connected, Ethernet0/3
172.16.0.0/16 is variably subnetted, 5 subnets, 3 masks
C 172.16.11.0/30 is directly connected, Ethernet0/0
L 172.16.11.1/32 is directly connected, Ethernet0/0
C 172.16.14.0/30 is directly connected, Ethernet0/2
L 172.16.14.2/32 is directly connected, Ethernet0/2
R 172.16.16.0/24 [120/1] via 172.16.14.1, 00:00:23, Ethernet0/2
192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.1.0/24 is directly connected, Ethernet0/1.1
L 192.168.1.1/32 is directly connected, Ethernet0/1.1
192.168.100.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.100.0/24 is directly connected, Ethernet0/1.100
L 192.168.100.1/32 is directly connected, Ethernet0/1.100
192.168.200.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.200.0/24 is directly connected, Ethernet0/1.200
L 192.168.200.1/32 is directly connected, Ethernet0/1.200
R2#

```

```

R3
R3#show run
R3#show running-config
Building configuration...

Current configuration : 913 bytes
!
version 15.2
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname R3
!
boot-start-marker
boot-end-marker
!
!
!
no aaa new-model
clock timezone PST -8 0
mmi polling-interval 60
no mmi auto-configure

```





```

R3
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
ARP type: ARPA, ARP Timeout 04:00:00
Last input never, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
 0 packets input, 0 bytes, 0 no buffer
  Received 0 broadcasts (0 IP multicasts)
 0 runts, 0 giants, 0 throttles
 0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
 0 input packets with dribble condition detected
666 packets output, 71699 bytes, 0 underruns
 0 output errors, 0 collisions, 11 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
Ethernet0/1 is up, line protocol is up
Hardware is AndP2, address is aabb.cc00.4310 (bia aabb.cc00.4310)
Description: ***Link to R2***
    
```

```

R3
Hardware is AndP2, address is aabb.cc00.4310 (bia aabb.cc00.4310)
Description: ***Link to R2***
Internet address is 172.16.11.2/30
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:21, output 00:00:05, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
 316 packets input, 74089 bytes, 0 no buffer
  Received 316 broadcasts (200 IP multicasts)
 0 runts, 0 giants, 0 throttles
 0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
 0 input packets with dribble condition detected
669 packets output, 71888 bytes, 0 underruns
 0 output errors, 0 collisions, 1 interface resets
 0 unknown protocol drops
 0 babbles, 0 late collision, 0 deferred
 0 lost carrier, 0 no carrier
    
```

```

R3
 0 babbles, 0 late collision, 0 deferred
 0 lost carrier, 0 no carrier
 0 output buffer failures, 0 output buffers swapped out
Ethernet0/2 is administratively down, line protocol is down
Hardware is AndP2, address is aabb.cc00.4320 (bia aabb.cc00.4320)
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
ARP type: ARPA, ARP Timeout 04:00:00
Last input never, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
 5 minute input rate 0 bits/sec, 0 packets/sec
 5 minute output rate 0 bits/sec, 0 packets/sec
  0 packets input, 0 bytes, 0 no buffer
Received 0 broadcasts (0 IP multicasts)
 0 runts, 0 giants, 0 throttles
 0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
 0 input packets with dribble condition detected
 0 packets output, 0 bytes, 0 underruns
 0 output errors, 0 collisions, 0 interface resets
 0 unknown protocol drops

```

```

R3
 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
Ethernet0/3 is administratively down, line protocol is down
Hardware is AndP2, address is aabb.cc00.4330 (bia aabb.cc00.4330)
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
ARP type: ARPA, ARP Timeout 04:00:00
Last input never, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
 5 minute input rate 0 bits/sec, 0 packets/sec
 5 minute output rate 0 bits/sec, 0 packets/sec
  0 packets input, 0 bytes, 0 no buffer
Received 0 broadcasts (0 IP multicasts)
 0 runts, 0 giants, 0 throttles
 0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
 0 input packets with dribble condition detected
 0 packets output, 0 bytes, 0 underruns
 0 output errors, 0 collisions, 0 interface resets

```

```

R3
0 input packets with dribble condition detected
0 packets output, 0 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
R3#
R3#
R3#show ip interface brief
Interface                IP-Address      OK? Method Status      Prot
ocol
Ethernet0/0              10.10.12.1     YES NVRAM  up          up
Ethernet0/1              172.16.11.2    YES NVRAM  up          up
Ethernet0/2              unassigned     YES NVRAM  administratively down down
Ethernet0/3              unassigned     YES NVRAM  administratively down down
R3#
R3#
R3#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route

```

```

R3
Ethernet0/2              unassigned     YES NVRAM  administratively down down
Ethernet0/3              unassigned     YES NVRAM  administratively down down
R3#
R3#
R3#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route, H - NHRP, I - LISP
       + - replicated route, % - next hop override

Gateway of last resort is not set

10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C    10.10.12.0/24 is directly connected, Ethernet0/0
L    10.10.12.1/32 is directly connected, Ethernet0/0
172.16.0.0/16 is variably subnetted, 2 subnets, 2 masks
C    172.16.11.0/30 is directly connected, Ethernet0/1
L    172.16.11.2/32 is directly connected, Ethernet0/1
R3#
R3#
R3#

```

```
L2SW1
!
no aaa new-model
clock timezone PST -8 0
!
ip cef
!
!
!
no ipv6 cef
ipv6 multicast rpf use-bgp
!
!
!
!
!
!
!
!
!
!
spanning-tree mode pvst
spanning-tree extend system-id
!
!
!
!
!
!
!
!
!
!
vlan internal allocation policy ascending
!
!
```

```
L2SW1
L2SW1#show run
L2SW1#show running-config
Building configuration...

Current configuration : 1074 bytes
!
version 15.1
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
service compress-config
!
hostname L2SW1
!
boot-start-marker
boot-end-marker
!
!
!
no aaa new-model
clock timezone PST -8 0
!
ip cef
!
```

```

L2SW1
interface Vlan1
 ip address 192.168.1.254 255.255.255.0
 !
 ip default-gateway 192.168.1.1
 !
 no ip http server
 !
 !
 !
 !
 control-plane
 !
 !
 line con 0
 logging synchronous
 line aux 0
 line vty 0 4
 login
 !
 end
L2SW1#
L2SW1#
L2SW1#show interfaces
Ethernet0/0 is up, line protocol is up (connected)

```

```

L2SW1
!
interface Ethernet0/0
 description ***Link to R2***
 switchport trunk encapsulation dot1q
 switchport mode trunk
 duplex auto
 !
interface Ethernet0/1
 description ***Link to Server1 segment***
 switchport access vlan 100
 switchport mode access
 duplex auto
 !
interface Ethernet0/2
 description ***Link to Server2 Segment***
 switchport access vlan 200
 switchport mode access
 duplex auto
 !
interface Ethernet0/3
 duplex auto
 !
interface Vlan1
 ip address 192.168.1.254 255.255.255.0
 !

```

```

L2SW1
L2SW1#show interfaces
Ethernet0/0 is up, line protocol is up (connected)
  Hardware is AndP2, address is aabb.cc00.4500 (bia aabb.cc00.4500)
  Description: ***Link to R2***
  MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  Auto-duplex, Auto-speed, media type is unknown
  input flow-control is off, output flow-control is unsupported
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:07, output 00:00:00, output hang never
  Last clearing of "show interface" counters never
  Input queue: 12/2000/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/0 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 1000 bits/sec, 2 packets/sec
    1447 packets input, 208877 bytes, 0 no buffer
    Received 139 broadcasts (0 multicasts)
    0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
    0 input packets with dribble condition detected
    13457 packets output, 919293 bytes, 0 underruns
    0 output errors, 0 collisions, 0 interface resets
  
```

```

L2SW1
    13457 packets output, 919293 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
Ethernet0/1 is up, line protocol is up (connected)
  Hardware is AndP2, address is aabb.cc00.4510 (bia aabb.cc00.4510)
  Description: ***Link to Server1 segment***
  MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  Auto-duplex, Auto-speed, media type is unknown
  input flow-control is off, output flow-control is unsupported
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:07, output 00:00:01, output hang never
  Last clearing of "show interface" counters never
  Input queue: 5/2000/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/0 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    755 packets input, 80219 bytes, 0 no buffer
    Received 123 broadcasts (0 multicasts)
  
```

```

L2SW1
755 packets input, 80219 bytes, 0 no buffer
Received 123 broadcasts (0 multicasts)
0 runts, 0 giants, 0 throttles
0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
0 input packets with dribble condition detected
3867 packets output, 268544 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
Ethernet0/2 is up, line protocol is up (connected)
Hardware is AndP2, address is aabb.cc00.4520 (bia aabb.cc00.4520)
Description: ***Link to Server2 Segaent***
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
Auto-duplex, Auto-speed, media type is unknown
input flow-control is off, output flow-control is unsupported
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:07, output 00:00:01, output hang never
Last clearing of "show interface" counters never
Input queue: 5/2000/0/0 (size/max/drops/flushes): Total output drops: 0
Queueing strategy: fifo
  
```

```

L2SW1
Queueing strategy: fifo
Output queue: 0/0 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
758 packets input, 81010 bytes, 0 no buffer
Received 125 broadcasts (0 multicasts)
0 runts, 0 giants, 0 throttles
0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
0 input packets with dribble condition detected
3867 packets output, 268544 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
Ethernet0/3 is up, line protocol is up (connected)
Hardware is AndP2, address is aabb.cc00.4530 (bia aabb.cc00.4530)
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
Auto-duplex, Auto-speed, media type is unknown
input flow-control is off, output flow-control is unsupported
ARP type: ARPA, ARP Timeout 04:00:00
Last input never, output never, output hang never
  
```

```

L2SW1
Last input never, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/2000/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/0 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
  0 packets input, 0 bytes, 0 no buffer
  Received 0 broadcasts (0 multicasts)
  0 runts, 0 giants, 0 throttles
  0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
  0 input packets with dribble condition detected
 3566 packets output, 252186 bytes, 0 underruns
  0 output errors, 0 collisions, 55 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
Vlan1 is up, line protocol is up
Hardware is Ethernet SVI, address is aabb.cc80.4500 (bia aabb.cc80.4500)
Internet address is 192.168.1.254/24
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
  
```

```

L2SW1
Keepalive not supported
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:12, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
  235 packets input, 42480 bytes, 0 no buffer
  Received 235 broadcasts (0 IP multicasts)
  0 runts, 0 giants, 0 throttles
  0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
  11 packets output, 830 bytes, 0 underruns
  0 output errors, 0 interface resets
  0 unknown protocol drops
  0 output buffer failures, 0 output buffers swapped out
L2SW1#
L2SW1#
L2SW1#show ip interface brief
Interface          IP-Address      OK? Method Status  Protocol
Ethernet0/0        unassigned     YES unset  up      up
Ethernet0/1        unassigned     YES unset  up      up
Ethernet0/2        unassigned     YES unset  up      up
Ethernet0/3        unassigned     YES unset  up      up
  
```

```
L2SW1
0 output buffer failures, 0 output buffers swapped out
L2SW1#
L2SW1#
L2SW1#show ip interface brief
Interface                IP-Address      OK? Method Status      Protocol
Ethernet0/0              unassigned     YES unset  up          up
Ethernet0/1              unassigned     YES unset  up          up
Ethernet0/2              unassigned     YES unset  up          up
Ethernet0/3              unassigned     YES unset  up          up
Vlan1                    192.168.1.254  YES NVRAM  up          up
L2SW1#
L2SW1#
L2SW1#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route, H - NHRP, I - LISP
       + - replicated route, % - next hop override

Gateway of last resort is not set

192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
```

```
L2SW1
Ethernet0/0              unassigned     YES unset  up          up
Ethernet0/1              unassigned     YES unset  up          up
Ethernet0/2              unassigned     YES unset  up          up
Ethernet0/3              unassigned     YES unset  up          up
Vlan1                    192.168.1.254  YES NVRAM  up          up
L2SW1#
L2SW1#
L2SW1#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route, H - NHRP, I - LISP
       + - replicated route, % - next hop override

Gateway of last resort is not set

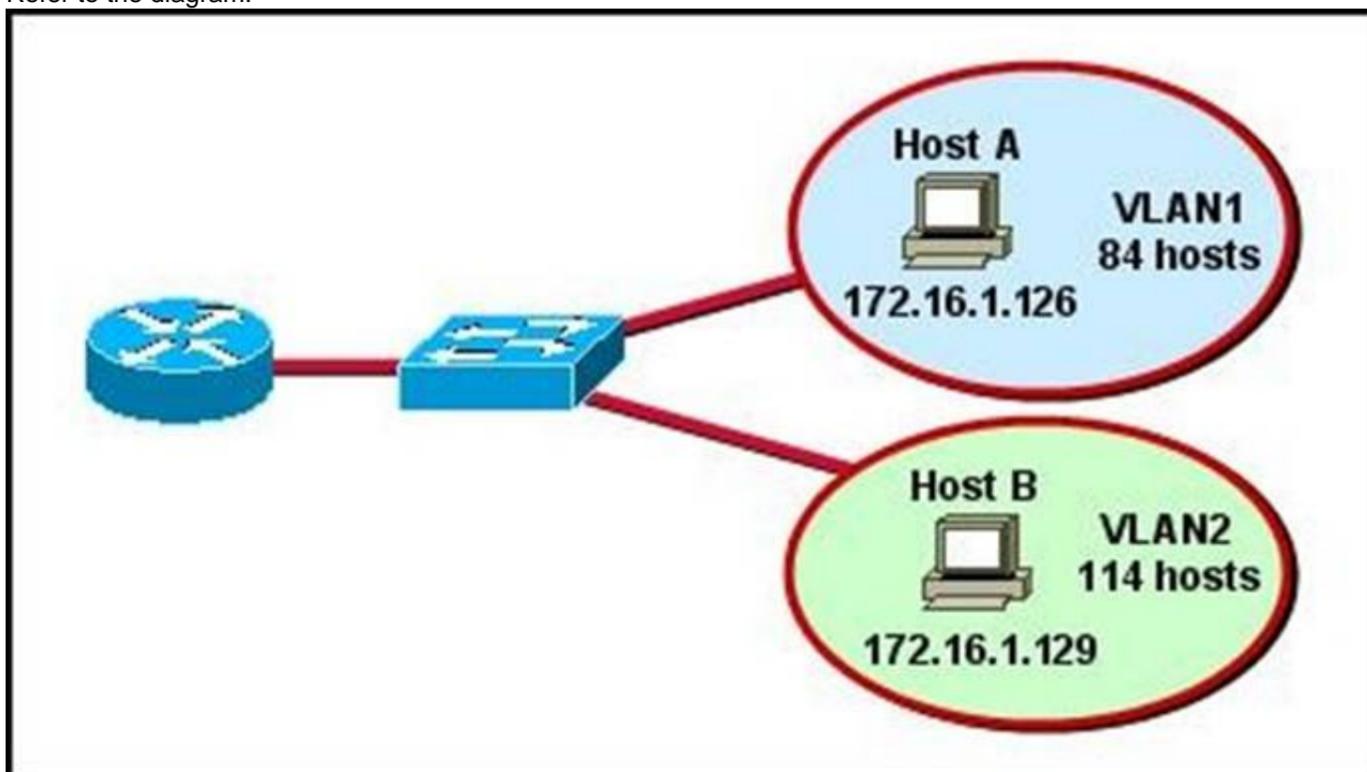
192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C      192.168.1.0/24 is directly connected, Vlan1
L      192.168.1.254/32 is directly connected, Vlan1
L2SW1#
L2SW1#
L2SW1#
```

Answer:

Explanation: Pending  
Suggest your Answer for this question.

**NEW QUESTION 624**

Refer to the diagram.



All hosts have connectivity with one another. Which statements describe the addressing scheme that is in use in the network? (Choose three.)

- A. The subnet mask in use is 255.255.255.192.
- B. The subnet mask in use is 255.255.255.128.
- C. The IP address 172.16.1.25 can be assigned to hosts in VLAN1
- D. The IP address 172.16.1.205 can be assigned to hosts in VLAN1
- E. The LAN interface of the router is configured with one IP address.
- F. The LAN interface of the router is configured with multiple IP addresses.

**Answer:** BCF

**Explanation:** The subnet mask in use is 255.255.255.128: This is subnet mask will support up to 126 hosts, which is needed. The IP address 172.16.1.25 can be assigned to hosts in VLAN1: The usable host range in this subnet is 172.16.1.1-172.16.1.126

The LAN interface of the router is configured with multiple IP addresses: The router will need 2 subinterfaces for the single physical interface, one with an IP address that belongs in each VLAN.

**NEW QUESTION 627**

Which two statements about stateful firewalls in an enterprise network are true? (Choose two )

- A. They can filter HTTP and HTTPS traffic in the inbound direction only
- B. They can use information about previous packets to make decisions about future packets.
- C. They are most effective when placed in front of the router connected to the Internet
- D. They are more susceptible to DoS attacks than stateless firewalls
- E. They can track the number of active TCP connections

**Answer:** CE

**NEW QUESTION 632**

Which definition of a host route is true?

- A. a route to the exact /32 destination address
- B. a route used when a route to the destination network is missing
- C. a dynamic route learned from a server
- D. a route that is manually configured

**Answer:** A

**NEW QUESTION 634**

Scenario:

You work for a company that provides managed network services, and of your real estate clients running a small office is experiencing network issues, Troubleshoot the network issues.

Router R1 connects the main office to internet, and routers R2 and R3 are internal routers NAT is enabled on Router R1.

The routing protocol that is enable between routers R1, R2, and R3 is RIPv2.

R1 sends default route into RIPv2 for internal routers to forward internet traffic to R1.

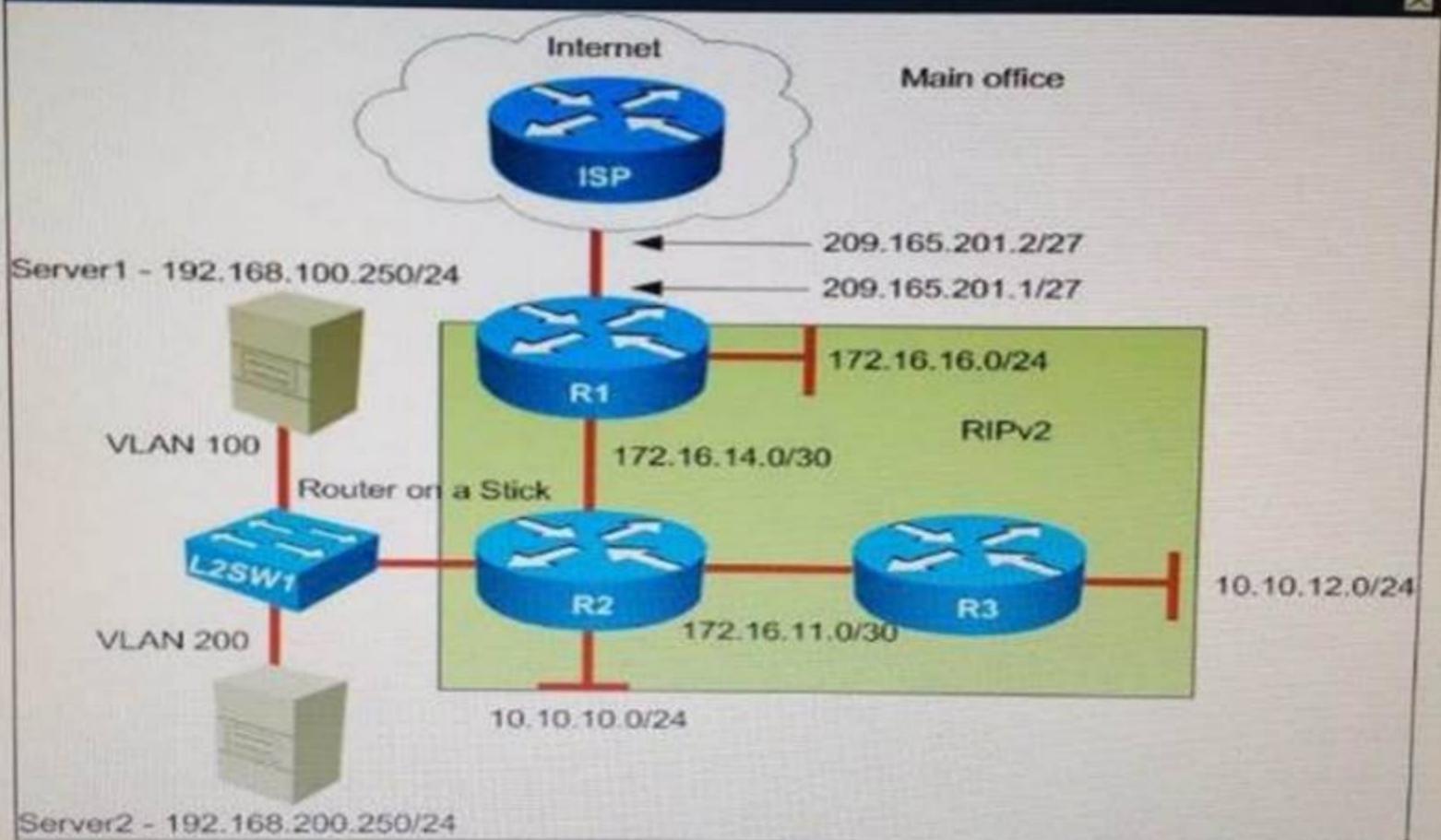
Server1 and Server2 are placed in VLAN 100 and 200 respectively, and dare still running router on stick configuration with router R2.

You have console access on R1, R2, R3, and L2SW1 devices. Use only show commands to troubleshoot the issues.

Instructions

- Enter IOS commands on the device to verify network operation and answer the multiple-choice questions.
- **THIS TASK DOES NOT REQUIRE DEVICE CONFIGURATION.**
- Click the device icon to gain access to the console of the device. No console or enable passwords are required.
- To access the multiple-choice questions, click the numbered boxes on the left of the top panel.
- There are **four** multiple-choice questions with this task. Be sure to answer all four questions before clicking Next.

Topology



```

R1
R1#show r
R1#show run
R1#show running-config
Building configuration...

Current configuration : 1438 bytes
!
version 15.2
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname R1
!
boot-start-marker
boot-end-marker
!
!
no aaa new-model
clock timezone PST -8 0
nmi polling-interval 60
no nmi auto-configure
    
```





```

R1
!
line con 0
  logging synchronous
line aux 0
line vty 0 4
  login
  transport input all
!
!
end
R1#show interfaces
Ethernet0/0 is up, line protocol is up
  Hardware is AndP2, address is aabb.cc00.4100 (bia aabb.cc00.4100)
  Description: ***Link to ISP***
  Internet address is 209.165.201.1/27
  MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:53, output 00:00:07, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)

```

```

R1
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
  40 packets input, 11786 bytes, 0 no buffer
  Received 39 broadcasts (0 IP multicasts)
  0 runts, 0 giants, 0 throttles
  0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
  0 input packets with dribble condition detected
  191 packets output, 20271 bytes, 0 underruns
  0 output errors, 0 collisions, 1 interface resets
  4 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
Ethernet0/1 is up, line protocol is up
  Hardware is AndP2, address is aabb.cc00.4110 (bia aabb.cc00.4110)
  Description: ***Link to LAN***
  Internet address is 172.16.16.1/24
  MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  ARP type: ARPA, ARP Timeout 04:00:00

```

```

R1
Keepalive set (10 sec)
ARP type: ARPA, ARP Timeout 04:00:00
Last input never, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
  0 packets input, 0 bytes, 0 no buffer
  Received 0 broadcasts (0 IP multicasts)
  0 runts, 0 giants, 0 throttles
  0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
  0 input packets with dribble condition detected
 245 packets output, 30725 bytes, 0 underruns
  0 output errors, 0 collisions, 4 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
Ethernet0/2 is up, line protocol is up
  Hardware is AndP2, address is aabb.cc00.4120 (bia aabb.cc00.4120)
  Description: ***Link to R2***
  Internet address is 172.16.14.1/30
  MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,

```

```

R1
Internet address is 172.16.14.1/30
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:16, output 00:00:07, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
  98 packets input, 20097 bytes, 0 no buffer
  Received 97 broadcasts (54 IP multicasts)
  0 runts, 0 giants, 0 throttles
  0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
  0 input packets with dribble condition detected
 247 packets output, 25359 bytes, 0 underruns
  0 output errors, 0 collisions, 1 interface resets
  4 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
Ethernet0/3 is administratively down, line protocol is down

```

```

R1
 0 output buffer failures, 0 output buffers swapped out
Ethernet0/3 is administratively down, line protocol is down
Hardware is Am2P2, address is aabb.cc00.4130 (bia aabb.cc00.4130)
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
ARP type: ARPA, ARP Timeout 04:00:00
Last input never, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
 0 packets input, 0 bytes, 0 no buffer
Received 0 broadcasts (0 IP multicasts)
 0 runts, 0 giants, 0 throttles
 0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
 0 input packets with dribble condition detected
 0 packets output, 0 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

```

```

R1
 0 babbles, 0 late collision, 0 deferred
 0 lost carrier, 0 no carrier
 0 output buffer failures, 0 output buffers swapped out
NVI0 is up, line protocol is up
Hardware is NVI
Interface is unnumbered. Using address of Ethernet0/0 (209.165.201.1)
MTU 1514 bytes, BW 56 Kbit/sec, DLY 5000 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Encapsulation UNKNOWN, loopback not set
Keepalive set (10 sec)
Last input never, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
 0 packets input, 0 bytes, 0 no buffer
Received 0 broadcasts (0 IP multicasts)
 0 runts, 0 giants, 0 throttles
 0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
 0 packets output, 0 bytes, 0 underruns
 0 output errors, 0 collisions, 0 interface resets
 0 unknown protocol drops
 0 output buffer failures, 0 output buffers swapped out
R1#
R1#show ip interface brief

```

```

R1
R1#
R1#show ip interface brief
Interface          IP-Address      OK? Method Status  Prot
ocol
Ethernet0/0        209.165.201.1  YES NVRAM  up      up
Ethernet0/1        172.16.16.1    YES NVRAM  up      up
Ethernet0/2        172.16.14.1    YES NVRAM  up      up
Ethernet0/3        unassigned     YES NVRAM  admini  down
stratively      209.165.201.1  YES unset  up      up
down
R1#
R1#
R1#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static route
o - ODR, P - periodic downloaded static route, H - NHRP, l - LISP
+ - replicated route, % - next hop override

Gateway of last resort is not set

10.0.0.0/24 is subnetted, 1 subnets
R    10.10.10.0 [120/1] via 172.16.14.2, 00:00:20, Ethernet0/2

```

```

R1
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static route
o - ODR, P - periodic downloaded static route, H - NHRP, l - LISP
+ - replicated route, % - next hop override

Gateway of last resort is not set

10.0.0.0/24 is subnetted, 1 subnets
R    10.10.10.0 [120/1] via 172.16.14.2, 00:00:20, Ethernet0/2
172.16.0.0/16 is variably subnetted, 5 subnets, 3 masks
R    172.16.11.0/30 [120/1] via 172.16.14.2, 00:00:20, Ethernet0/2
C    172.16.14.0/30 is directly connected, Ethernet0/2
L    172.16.14.1/32 is directly connected, Ethernet0/2
C    172.16.16.0/24 is directly connected, Ethernet0/1
L    172.16.16.1/32 is directly connected, Ethernet0/1
R    192.168.1.0/24 [120/1] via 172.16.14.2, 00:00:20, Ethernet0/2
R    192.168.100.0/24 [120/1] via 172.16.14.2, 00:00:20, Ethernet0/2
R    192.168.200.0/24 [120/1] via 172.16.14.2, 00:00:20, Ethernet0/2
209.165.201.0/24 is variably subnetted, 2 subnets, 2 masks
C    209.165.201.0/27 is directly connected, Ethernet0/0
L    209.165.201.1/32 is directly connected, Ethernet0/0
R1#
R1#

```







```

R2
R2#show interfaces
Ethernet0/0 is up, line protocol is up
  Hardware is AndP2, address is aabb.cc00.4200 (bia aabb.cc00.4200)
  Description: ***Link to R3***
  Internet address is 172.16.11.1/30
  MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:32, output 00:00:08, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    50 packets input, 15683 bytes, 0 no buffer
    Received 50 broadcasts (0 IP multicasts)
    0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
    0 input packets with dribble condition detected
    343 packets output, 42566 bytes, 0 underruns
    0 output errors, 0 collisions, 1 interface resets
    2 unknown protocol drops
  
```

```

R2
  2 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
Ethernet0/1 is up, line protocol is up
  Hardware is AndP2, address is aabb.cc00.4210 (bia aabb.cc00.4210)
  MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:00, output 00:00:08, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 1000 bits/sec, 2 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    4632 packets input, 308536 bytes, 0 no buffer
    Received 4421 broadcasts (0 IP multicasts)
    0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
    0 input packets with dribble condition detected
    512 packets output, 73148 bytes, 0 underruns
    0 output errors, 0 collisions, 0 interface resets
  
```

```

R2
 512 packets output, 73148 bytes, 0 underruns
 0 output errors, 0 collisions, 0 interface resets
 73 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
Ethernet0/1.1 is up, line protocol is up
  Hardware is AndP2, address is aabb.cc00.4210 (bia aabb.cc00.4210)
  Description: ***Link to Mangement Segment***
  Internet address is 192.168.1.1/24
  MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation 802.1Q Virtual LAN, Vlan ID 1.
  ARP type: ARPA, ARP Timeout 04:00:00
  Keepalive set (10 sec)
  Last clearing of "show interface" counters never
Ethernet0/1.100 is up, line protocol is up
  Hardware is AndP2, address is aabb.cc00.4210 (bia aabb.cc00.4210)
  Description: ***Link to Server1 Segment***
  Internet address is 192.168.100.1/24
  MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation 802.1Q Virtual LAN, Vlan ID 200.
  ARP type: ARPA, ARP Timeout 04:00:00
  Keepalive set (10 sec)

```

```

R2
  Keepalive set (10 sec)
  Last clearing of "show interface" counters never
Ethernet0/1.100 is up, line protocol is up
  Hardware is AndP2, address is aabb.cc00.4210 (bia aabb.cc00.4210)
  Description: ***Link to Server1 Segment***
  Internet address is 192.168.100.1/24
  MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation 802.1Q Virtual LAN, Vlan ID 200.
  ARP type: ARPA, ARP Timeout 04:00:00
  Keepalive set (10 sec)
  Last clearing of "show interface" counters never
Ethernet0/1.200 is up, line protocol is up
  Hardware is AndP2, address is aabb.cc00.4210 (bia aabb.cc00.4210)
  Description: ***Link to Server2 Segment***
  Internet address is 192.168.200.1/24
  MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation 802.1Q Virtual LAN, Vlan ID 100.
  ARP type: ARPA, ARP Timeout 04:00:00
  Keepalive set (10 sec)
  Last clearing of "show interface" counters never
Ethernet0/2 is up, line protocol is up
  Hardware is AndP2, address is aabb.cc00.4220 (bia aabb.cc00.4220)
  Description: ***Link to R1***

```

```

R2
Description: ***Link to R1***
Internet address is 172.16.14.2/30
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:08, output 00:00:02, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
 128 packets input, 21994 bytes, 0 no buffer
  Received 127 broadcasts (77 IP multicasts)
   0 runts, 0 giants, 0 throttles
   0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
   0 input packets with dribble condition detected
 345 packets output, 39952 bytes, 0 underruns
   0 output errors, 0 collisions, 1 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
  
```

```

R2
0 output buffer failures, 0 output buffers swapped out
Ethernet0/3 is up, line protocol is up
Hardware is AmdP2, address is aabb.cc00.4230 (bia aabb.cc00.4230)
Description: ***Link to LAN***
Internet address is 10.10.10.1/24
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
ARP type: ARPA, ARP Timeout 04:00:00
Last input never, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
  0 packets input, 0 bytes, 0 no buffer
  Received 0 broadcasts (0 IP multicasts)
   0 runts, 0 giants, 0 throttles
   0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
   0 input packets with dribble condition detected
 344 packets output, 42752 bytes, 0 underruns
   0 output errors, 0 collisions, 6 interface resets
   0 unknown protocol drops
  
```

```

R2
 0 output errors, 0 collisions, 6 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
R2#
R2#
R2#show ip interface brief
Interface          IP-Address      OK? Method Status  Prot
ocol
Ethernet0/0        172.16.11.1     YES NVRAM  up      up
Ethernet0/1        unassigned      YES NVRAM  up      up
Ethernet0/1.1      192.168.1.1     YES NVRAM  up      up
Ethernet0/1.100    192.168.100.1   YES NVRAM  up      up
Ethernet0/1.200    192.168.200.1   YES NVRAM  up      up
Ethernet0/2        172.16.14.2     YES NVRAM  up      up
Ethernet0/3        10.10.10.1      YES NVRAM  up      up
R2#
R2#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route

```

```

R2
R2#
R2#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route, H - NHRP, l - LISP
       + - replicated route, % - next hop override

Gateway of last resort is 172.16.14.1 to network 0.0.0.0

R*  0.0.0.0/0 [120/1] via 172.16.14.1, 00:00:23, Ethernet0/2
    10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C    10.10.10.0/24 is directly connected, Ethernet0/3
L    10.10.10.1/32 is directly connected, Ethernet0/3
    172.16.0.0/16 is variably subnetted, 5 subnets, 3 masks
C    172.16.11.0/30 is directly connected, Ethernet0/0
L    172.16.11.1/32 is directly connected, Ethernet0/0
C    172.16.14.0/30 is directly connected, Ethernet0/2
L    172.16.14.2/32 is directly connected, Ethernet0/2
R    172.16.16.0/24 [120/1] via 172.16.14.1, 00:00:23, Ethernet0/2
    192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C    192.168.1.0/24 is directly connected, Ethernet0/1.1

```

```

R2
o - ODR, P - periodic downloaded static route, H - MHRP, I - LISP
+ - replicated route, \ - next hop override

Gateway of last resort is 172.16.14.1 to network 0.0.0.0

R* 0.0.0.0/0 [120/1] via 172.16.14.1, 00:00:23, Ethernet0/2
10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C 10.10.10.0/24 is directly connected, Ethernet0/3
L 10.10.10.1/32 is directly connected, Ethernet0/3
172.16.0.0/16 is variably subnetted, 5 subnets, 3 masks
C 172.16.11.0/30 is directly connected, Ethernet0/0
L 172.16.11.1/32 is directly connected, Ethernet0/0
C 172.16.14.0/30 is directly connected, Ethernet0/2
L 172.16.14.2/32 is directly connected, Ethernet0/2
R 172.16.16.0/24 [120/1] via 172.16.14.1, 00:00:23, Ethernet0/2
192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.1.0/24 is directly connected, Ethernet0/1.1
L 192.168.1.1/32 is directly connected, Ethernet0/1.1
192.168.100.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.100.0/24 is directly connected, Ethernet0/1.100
L 192.168.100.1/32 is directly connected, Ethernet0/1.100
192.168.200.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.200.0/24 is directly connected, Ethernet0/1.200
L 192.168.200.1/32 is directly connected, Ethernet0/1.200
R2#

```

```

R3
R3#show run
R3#show running-config
Building configuration...

Current configuration : 913 bytes
!
version 15.2
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname R3
!
boot-start-marker
boot-end-marker
!
!
!
no aaa new-model
clock timezone PST -8 0
nmi polling-interval 60
no nmi auto-configure

```





```

R3
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
ARP type: ARPA, ARP Timeout 04:00:00
Last input never, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
  0 packets input, 0 bytes, 0 no buffer
  Received 0 broadcasts (0 IP multicasts)
  0 runts, 0 giants, 0 throttles
  0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
  0 input packets with dribble condition detected
  666 packets output, 71699 bytes, 0 underruns
  0 output errors, 0 collisions, 11 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
Ethernet0/1 is up, line protocol is up
  Hardware is AndP2, address is aabb.cc00.4310 (bia aabb.cc00.4310)
  Description: ***Link to R2***
  
```

```

R3
Hardware is AndP2, address is aabb.cc00.4310 (bia aabb.cc00.4310)
Description: ***Link to R2***
Internet address is 172.16.11.2/30
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:21, output 00:00:05, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
  316 packets input, 74089 bytes, 0 no buffer
  Received 316 broadcasts (200 IP multicasts)
  0 runts, 0 giants, 0 throttles
  0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
  0 input packets with dribble condition detected
  669 packets output, 71888 bytes, 0 underruns
  0 output errors, 0 collisions, 1 interface resets
  0 unknown protocol drops
  0 babbles, 0 late collision, 0 deferred
  0 lost carrier, 0 no carrier
  
```

```

R3
 0 babbles, 0 late collision, 0 deferred
 0 lost carrier, 0 no carrier
 0 output buffer failures, 0 output buffers swapped out
Ethernet0/2 is administratively down, line protocol is down
Hardware is AndP2, address is aabb.cc00.4320 (bia aabb.cc00.4320)
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
ARP type: ARPA, ARP Timeout 04:00:00
Last input never, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
 5 minute input rate 0 bits/sec, 0 packets/sec
 5 minute output rate 0 bits/sec, 0 packets/sec
  0 packets input, 0 bytes, 0 no buffer
Received 0 broadcasts (0 IP multicasts)
 0 runts, 0 giants, 0 throttles
 0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
 0 input packets with dribble condition detected
 0 packets output, 0 bytes, 0 underruns
 0 output errors, 0 collisions, 0 interface resets
 0 unknown protocol drops

```

```

R3
 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
Ethernet0/3 is administratively down, line protocol is down
Hardware is AndP2, address is aabb.cc00.4330 (bia aabb.cc00.4330)
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
ARP type: ARPA, ARP Timeout 04:00:00
Last input never, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
 5 minute input rate 0 bits/sec, 0 packets/sec
 5 minute output rate 0 bits/sec, 0 packets/sec
  0 packets input, 0 bytes, 0 no buffer
Received 0 broadcasts (0 IP multicasts)
 0 runts, 0 giants, 0 throttles
 0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
 0 input packets with dribble condition detected
 0 packets output, 0 bytes, 0 underruns
 0 output errors, 0 collisions, 0 interface resets

```

```

R3
0 input packets with dribble condition detected
0 packets output, 0 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
R3#
R3#
R3#show ip interface brief
Interface                IP-Address      OK? Method Status      Prot
ocol
Ethernet0/0              10.10.12.1     YES NVRAM  up          up
Ethernet0/1              172.16.11.2    YES NVRAM  up          up
Ethernet0/2              unassigned     YES NVRAM  administratively down down
Ethernet0/3              unassigned     YES NVRAM  administratively down down
R3#
R3#
R3#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route

```

```

R3
Ethernet0/2              unassigned     YES NVRAM  administratively down down
Ethernet0/3              unassigned     YES NVRAM  administratively down down
R3#
R3#
R3#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route, H - NHRP, I - LISP
       + - replicated route, % - next hop override

Gateway of last resort is not set

10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C    10.10.12.0/24 is directly connected, Ethernet0/0
L    10.10.12.1/32 is directly connected, Ethernet0/0
172.16.0.0/16 is variably subnetted, 2 subnets, 2 masks
C    172.16.11.0/30 is directly connected, Ethernet0/1
L    172.16.11.2/32 is directly connected, Ethernet0/1
R3#
R3#
R3#

```

```
L2SW1
!
no aaa new-model
clock timezone PST -8 0
!
ip cef
!
!
!
no ipv6 cef
ipv6 multicast rpf use-bgp
!
!
!
!
!
!
!
!
!
!
spanning-tree mode pvst
spanning-tree extend system-id
!
!
!
!
!
!
!
!
!
!
vlan internal allocation policy ascending
!
!
```

```
L2SW1
L2SW1#show run
L2SW1#show running-config
Building configuration...

Current configuration : 1074 bytes
!
version 15.1
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
service compress-config
!
hostname L2SW1
!
boot-start-marker
boot-end-marker
!
!
!
no aaa new-model
clock timezone PST -8 0
!
ip cef
!
```

```
L2SW1
interface Vlan1
 ip address 192.168.1.254 255.255.255.0
 !
 ip default-gateway 192.168.1.1
 !
 no ip http server
 !
 !
 !
 !
 control-plane
 !
 !
 line con 0
 logging synchronous
 line aux 0
 line vty 0 4
 login
 !
end
L2SW1#
L2SW1#
L2SW1#show interfaces
Ethernet0/0 is up, line protocol is up (connected)
```

```
L2SW1
!
interface Ethernet0/0
 description ***Link to R2***
 switchport trunk encapsulation dot1q
 switchport mode trunk
 duplex auto
 !
interface Ethernet0/1
 description ***Link to Server1 segment***
 switchport access vlan 100
 switchport mode access
 duplex auto
 !
interface Ethernet0/2
 description ***Link to Server2 Segment***
 switchport access vlan 200
 switchport mode access
 duplex auto
 !
interface Ethernet0/3
 duplex auto
 !
interface Vlan1
 ip address 192.168.1.254 255.255.255.0
 !
```

```

L2SW1
L2SW1#show interfaces
Ethernet0/0 is up, line protocol is up (connected)
  Hardware is Am2P2, address is aabb.cc00.4500 (bia aabb.cc00.4500)
  Description: ***Link to R2***
  MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  Auto-duplex, Auto-speed, media type is unknown
  input flow-control is off, output flow-control is unsupported
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:07, output 00:00:00, output hang never
  Last clearing of "show interface" counters never
  Input queue: 12/2000/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/0 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 1000 bits/sec, 2 packets/sec
    1447 packets input, 208877 bytes, 0 no buffer
    Received 139 broadcasts (0 multicasts)
    0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
    0 input packets with dribble condition detected
  13457 packets output, 919293 bytes, 0 underruns
    0 output errors, 0 collisions, 0 interface resets
  
```

```

L2SW1
    13457 packets output, 919293 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
Ethernet0/1 is up, line protocol is up (connected)
  Hardware is Am2P2, address is aabb.cc00.4510 (bia aabb.cc00.4510)
  Description: ***Link to Server1 segment***
  MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  Auto-duplex, Auto-speed, media type is unknown
  input flow-control is off, output flow-control is unsupported
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:07, output 00:00:01, output hang never
  Last clearing of "show interface" counters never
  Input queue: 5/2000/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/0 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    755 packets input, 80219 bytes, 0 no buffer
    Received 123 broadcasts (0 multicasts)
  
```

```

L2SW1
755 packets input, 80219 bytes, 0 no buffer
Received 123 broadcasts (0 multicasts)
0 runts, 0 giants, 0 throttles
0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
0 input packets with dribble condition detected
3867 packets output, 268544 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
Ethernet0/2 is up, line protocol is up (connected)
Hardware is AndP2, address is aabb.cc00.4520 (bia aabb.cc00.4520)
Description: ***Link to Server2 Segant***
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
Auto-duplex, Auto-speed, media type is unknown
input flow-control is off, output flow-control is unsupported
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:07, output 00:00:01, output hang never
Last clearing of "show interface" counters never
Input queue: 5/2000/0/0 (size/max/drops/flushes): Total output drops: 0
Queueing strategy: fifo
  
```

```

L2SW1
Queueing strategy: fifo
Output queue: 0/0 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
758 packets input, 81010 bytes, 0 no buffer
Received 125 broadcasts (0 multicasts)
0 runts, 0 giants, 0 throttles
0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
0 input packets with dribble condition detected
3867 packets output, 268544 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
Ethernet0/3 is up, line protocol is up (connected)
Hardware is AndP2, address is aabb.cc00.4530 (bia aabb.cc00.4530)
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
Auto-duplex, Auto-speed, media type is unknown
input flow-control is off, output flow-control is unsupported
ARP type: ARPA, ARP Timeout 04:00:00
Last input never, output never, output hang never
  
```

```

L2SW1
Last input never, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/2000/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/0 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
  0 packets input, 0 bytes, 0 no buffer
  Received 0 broadcasts (0 multicasts)
  0 runts, 0 giants, 0 throttles
  0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
  0 input packets with dribble condition detected
 3566 packets output, 252186 bytes, 0 underruns
  0 output errors, 0 collisions, 55 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
Vlan1 is up, line protocol is up
Hardware is Ethernet SVI, address is aabb.cc80.4500 (bia aabb.cc80.4500)
Internet address is 192.168.1.254/24
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
  
```

```

L2SW1
Keepalive not supported
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:12, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
  235 packets input, 42480 bytes, 0 no buffer
  Received 235 broadcasts (0 IP multicasts)
  0 runts, 0 giants, 0 throttles
  0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
  11 packets output, 830 bytes, 0 underruns
  0 output errors, 0 interface resets
  0 unknown protocol drops
  0 output buffer failures, 0 output buffers swapped out
L2SW1#
L2SW1#
L2SW1#show ip interface brief
Interface          IP-Address      OK? Method Status  Protocol
Ethernet0/0        unassigned      YES unset  up      up
Ethernet0/1        unassigned      YES unset  up      up
Ethernet0/2        unassigned      YES unset  up      up
Ethernet0/3        unassigned      YES unset  up      up
  
```

```
L2SW1
0 output buffer failures, 0 output buffers swapped out
L2SW1#
L2SW1#
L2SW1#show ip interface brief
Interface                IP-Address      OK? Method Status      Protocol
Ethernet0/0              unassigned     YES unset  up          up
Ethernet0/1              unassigned     YES unset  up          up
Ethernet0/2              unassigned     YES unset  up          up
Ethernet0/3              unassigned     YES unset  up          up
Vlan1                    192.168.1.254  YES NVRAM  up          up
L2SW1#
L2SW1#
L2SW1#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route, H - NHRP, I - LISP
       + - replicated route, % - next hop override

Gateway of last resort is not set

192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
```

```
L2SW1
Ethernet0/0              unassigned     YES unset  up          up
Ethernet0/1              unassigned     YES unset  up          up
Ethernet0/2              unassigned     YES unset  up          up
Ethernet0/3              unassigned     YES unset  up          up
Vlan1                    192.168.1.254  YES NVRAM  up          up
L2SW1#
L2SW1#
L2SW1#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route, H - NHRP, I - LISP
       + - replicated route, % - next hop override

Gateway of last resort is not set

192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C      192.168.1.0/24 is directly connected, Vlan1
L      192.168.1.254/32 is directly connected, Vlan1
L2SW1#
L2SW1#
L2SW1#
```

Examine R2 configuration, the traffic that is destined to R3 LAN network sourced from Router R2 is forwarded to R1 instead R3. What could be an issue?





**Answer:**

**Explanation:** TCP HTTP SMTP  
Telnet UDP DHCP SNMP VOIP

**NEW QUESTION 644**

What feature you should use to analyse and monitor your traffic for troubleshooting?

- A. RSPAN
- B. SPAN
- C. Netflow
- D. SNMP

**Answer:** C

**NEW QUESTION 645**

Which two statements about LLDP are True? (Choose Two)

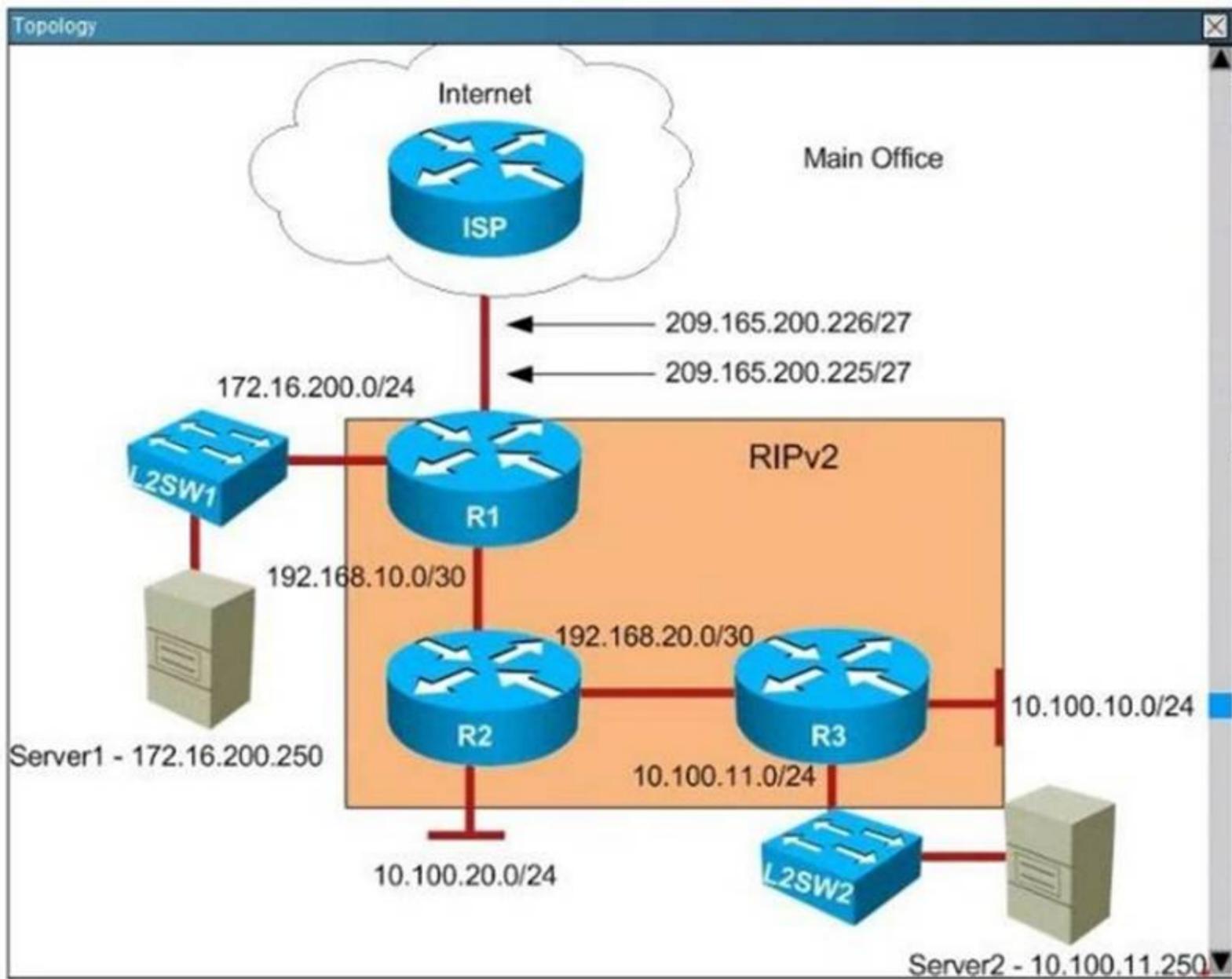
- A. it enables systems to learn about one another over the data-link layer
- B. it uses mandatory TLVs to discover the neighboring devices
- C. it is implemented in accordance with the 802.11a specification
- D. it functions at layer 2 and layer 3
- E. it is a cisco-proprietary technology

**Answer:** AC

**NEW QUESTION 649**

Scenario:

You are a junior network engineer for a financial company, and the main office network is experiencing network issues. Troubleshoot the network issues. Router R1 connects the main office to the internet, and routers R2 and R3 are internal routers. NAT is enabled on router R1. The routing protocol that is enabled between routers R1, R2 and R3 is RIPv2. R1 sends the default route into RIPv2 for the internal routers to forward internet traffic to R1. You have console access on R1, R2 and R3 devices. Use only show commands to troubleshoot the issues.



```

R1
Current configuration : 1651 bytes
!
! No configuration change since last restart
version 15.2
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname R1
!
boot-start-marker
boot-end-marker
!
!
!
no aaa new-model
clock timezone PST -8 0
mmi polling-interval 60
no mmi auto-configure
no mmi pvc
mmi snmp-timeout 180
!
!
!
--- More (105) ---
    
```



```
R1
ip access-list extended LOCAL
 permit ip host 127.0.0.1 any
!
!
!
!
!
control-plane
!
!
!
!
!
!
!
!
!
!
line con 0
 logging synchronous
line aux 0
line vty 0 4
 login
 transport input all
!
ntp server 209.165.200.226
!
end
R1#
```

```
R2
Building configuration...

Current configuration : 1243 bytes
!
version 15.2
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname R2
!
boot-start-marker
boot-end-marker
!
!
!
no aaa new-model
clock timezone PST -8 0
mmi polling-interval 60
no mmi auto-configure
no mmi pvc
mmi snmp-timeout 180
!
!
!
--- More (92) ---
```

```
R2
version 15.2
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname R2
!
boot-start-marker
boot-end-marker
!
!
!
no aaa new-model
clock timezone PST -8 0
mmi polling-interval 60
no mmi auto-configure
no mmi pvc
mmi snmp-timeout 180
!
!
!
!
```







- A. The source and destination devices must be Cisco devices
- B. The source device must be a Cisco device, but the destination device can be from any vendor
- C. The source device must be running Layer 2 services
- D. A default gateway must be configured for the source and destination devices
- E. The destination device must support the echo protocol.

**Answer:** AE

**NEW QUESTION 658**

If you change the weight and distance parameters on a device with an established bgp neighbor, which additional task must you perform to allow two devices to continue exchanging routes ?

- A. Change the weight and distance settings on the other device to match
- B. reset the gateway interface
- C. reset the BGP connections on the device
- D. Clear the IP routes on the device

**Answer:** C

**NEW QUESTION 663**

Scenario:

You work for a company that provides managed network services, and of your real estate clients running a small office is experiencing network issues, Troubleshoot the network issues.

Router R1 connects the main office to internet, and routers R2 and R3 are internal routers NAT is enabled on Router R1.

The routing protocol that is enable between routers R1, R2, and R3 is RIPv2.

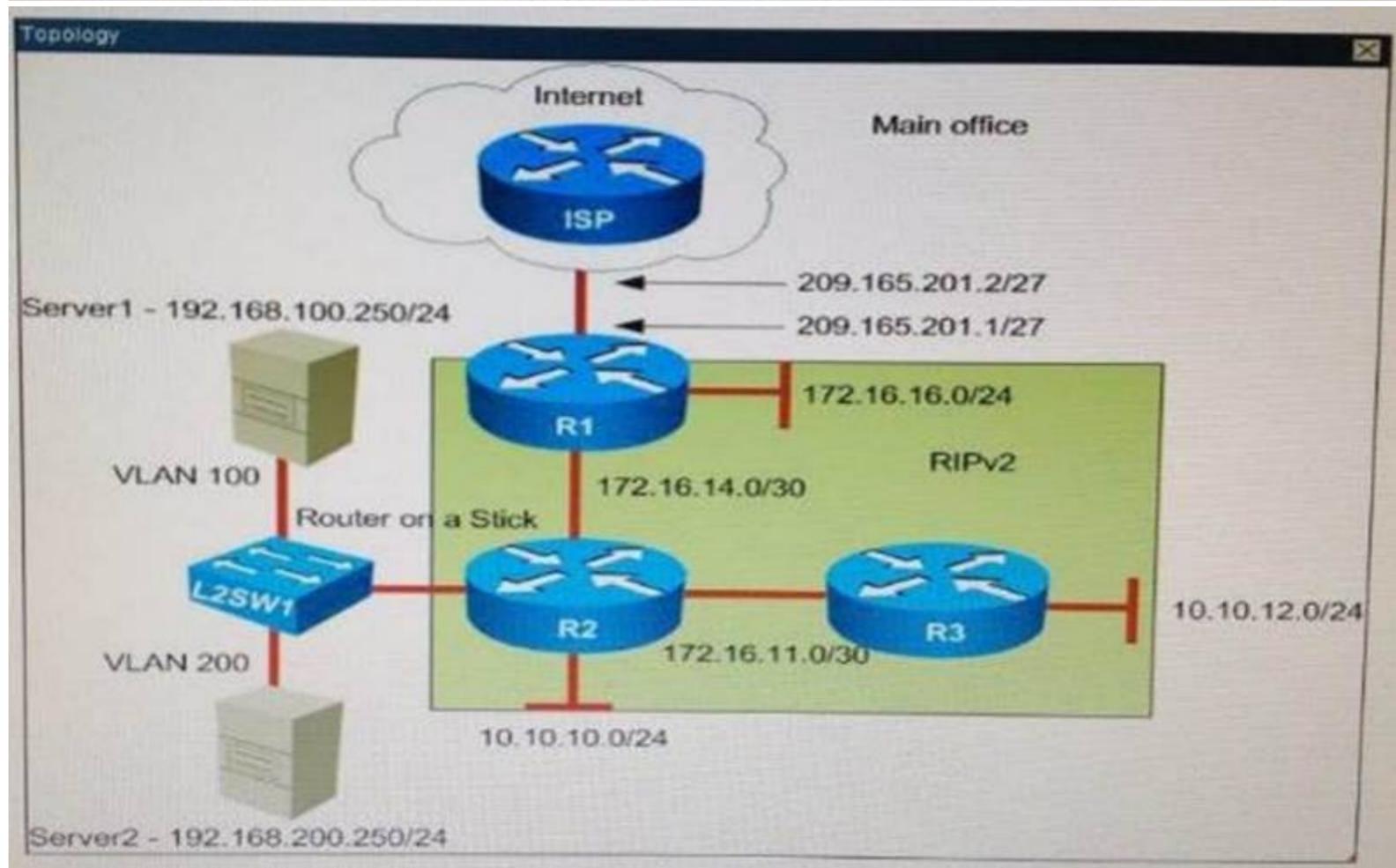
R1 sends default route into RIPv2 for internal routers to forward internet traffic to R1.

Server1 and Server2 are placed in VLAN 100 and 200 respectively, and are still running router on stick configuration with router R2.

You have console access on R1, R2, R3, and L2SW1 devices. Use only show commands to troubleshoot the issues.

**Instructions**

- Enter IOS commands on the device to verify network operation and answer the multiple-choice questions.
- **THIS TASK DOES NOT REQUIRE DEVICE CONFIGURATION.**
- Click the device icon to gain access to the console of the device. No console or enable passwords are required.
- To access the multiple-choice questions, click the numbered boxes on the left of the top panel.
- There are **four** multiple-choice questions with this task. Be sure to answer all four questions before clicking Next.





```
multilink bundle-name authenticated
```

```
redundancy
```

```
interface Ethernet0/0
description ***Link to ISP***
ip address 209.165.201.1 255.255.255.224
ip nat outside
ip virtual-reassembly in
!
interface Ethernet0/1
description ***Link to LAN***
ip address 172.16.16.1 255.255.255.0
ip nat inside
ip virtual-reassembly in
!
interface Ethernet0/2
description ***Link to R2***
ip address 172.16.14.1 255.255.255.252
ip nat inside
ip virtual-reassembly in
!
interface Ethernet0/3
no ip address
shutdown
!
router rip
version 2
```

```

router rip
  version 2
  network 172.16.0.0
  default-information originate
  no auto-summary
!
ip forward-protocol nd
!
!
no ip http server
no ip http secure-server
ip nat inside source list LOCAL interface Ethernet0/0 overload
ip route 10.10.10.0 255.255.255.0 172.16.14.2 200
!
ip access-list standard LOCAL
  permit 10.0.0.0 0.255.255.255
  permit 172.16.0.0 0.0.255.255
  permit 192.168.0.0 0.0.255.255
!
!
!
!
control-plane
!

```

```

line con 0
  logging synchronous
line aux 0
line vty 0 4
  login
  transport input all
!
!
end
R1#show interfaces
Ethernet0/0 is up, line protocol is up
  Hardware is AmP2, address is aabb.cc00.4100 (bia aabb.cc00.4100)
  Description: ***Link to ISP***
  Internet address is 209.165.201.1/27
  MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:53, output 00:00:07, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)

```

```

Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
 40 packets input, 11786 bytes, 0 no buffer
 Received 39 broadcasts (0 IP multicasts)
 0 runts, 0 giants, 0 throttles
 0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
 0 input packets with dribble condition detected
191 packets output, 20271 bytes, 0 underruns
 0 output errors, 0 collisions, 1 interface resets
 4 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
Ethernet0/1 is up, line protocol is up
 Hardware is Am2P2, address is aabb.cc00.4110 (bia aabb.cc00.4110)
 Description: ***Link to LAN***
 Internet address is 172.16.16.1/24
 MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
   reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 ARP type: ARPA, ARP Timeout 04:00:00

```

```

Keepalive set (10 sec)
ARP type: ARPA, ARP Timeout 04:00:00
Last input never, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
 0 packets input, 0 bytes, 0 no buffer
 Received 0 broadcasts (0 IP multicasts)
 0 runts, 0 giants, 0 throttles
 0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
 0 input packets with dribble condition detected
245 packets output, 30725 bytes, 0 underruns
 0 output errors, 0 collisions, 4 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
Ethernet0/2 is up, line protocol is up
 Hardware is Am2P2, address is aabb.cc00.4120 (bia aabb.cc00.4120)
 Description: ***Link to R2***
 Internet address is 172.16.14.1/30
 MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,

```

```

Internet address is 172.16.14.1/30
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:16, output 00:00:07, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
  98 packets input, 20097 bytes, 0 no buffer
  Received 97 broadcasts (54 IP multicasts)
  0 runts, 0 giants, 0 throttles
  0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
  0 input packets with dribble condition detected
  247 packets output, 25359 bytes, 0 underruns
  0 output errors, 0 collisions, 1 interface resets
  4 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
Ethernet0/3 is administratively down, line protocol is down

```

```

  0 output buffer failures, 0 output buffers swapped out
Ethernet0/3 is administratively down, line protocol is down
Interface is Loopback, address is eabb.cc00.4130 (bia eabb.cc00.4130)
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
ARP type: ARPA, ARP Timeout 04:00:00
Last input never, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
  0 packets input, 0 bytes, 0 no buffer
  Received 0 broadcasts (0 IP multicasts)
  0 runts, 0 giants, 0 throttles
  0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
  0 input packets with dribble condition detected
  0 packets output, 0 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 late collisions, 0 detected
0 carrier, 0 no carrier
0 output buffer failures, 0 output buffers swapped out
Line is up, line protocol is up
Hardware is NVI
Interface is unnumbered. Using address of Ethernet0/0 (209.165.201.1)
MTU 1514 bytes, BW 56 Kbit/sec, DLY 5000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
Encapsulation UNKNOWN, loopback not set
Keepalive set (10 sec)
Last input never, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
    0 packets input, 0 bytes, 0 no buffer
    Received 0 broadcasts (0 IP multicasts)
    0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
    0 packets output, 0 bytes, 0 underruns
    0 output errors, 0 collisions, 0 interface resets
    0 unknown protocol drops
    0 output buffer failures, 0 output buffers swapped out
R1#
R1#show ip interface brief

```

```

Interface brief

```

Interface	IP-Address	OK?	Method	Status	Prot
Ethernet0/0	209.165.201.1	YES	NVRAM	up	up
Ethernet0/1	172.16.16.1	YES	NVRAM	up	up
Ethernet0/2	172.16.14.1	YES	NVRAM	up	up
Ethernet0/3	unassigned	YES	NVRAM	administratively down	down
NV10	209.165.201.1	YES	unset	up	up

```

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

Gateway of last resort is not set

10.0.0.0/24 is subnetted, 1 subnets
R    10.10.10.0 [120/1] via 172.16.14.2, 00:00:20, Ethernet0/2

```

```

R1# show ip route
IP routing table:
  0 - OSPF external type 1, E2 - OSPF external type 2
  1 - OSPF external type 1, E2 - OSPF external type 2
  I - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
  ia - IS-IS inter area, * - candidate default, U - per-user static route
  o - ODR, P - periodic downloaded static route, H - NHRP, I - ISIS
  + - replicated route, % - next hop override

Gateway of last resort is not set

10.0.0.0/24 is subnetted, 1 subnets
R    10.10.10.0 [120/1] via 172.16.14.2, 00:00:20, Ethernet0/2
172.16.0.0/16 is variably subnetted, 5 subnets, 3 masks
R    172.16.11.0/30 [120/1] via 172.16.14.2, 00:00:20, Ethernet0/2
C    172.16.14.0/30 is directly connected, Ethernet0/2
L    172.16.14.1/32 is directly connected, Ethernet0/2
C    172.16.16.0/24 is directly connected, Ethernet0/1
L    172.16.16.1/32 is directly connected, Ethernet0/1
R    192.168.1.0/24 [120/1] via 172.16.14.2, 00:00:20, Ethernet0/2
R    192.168.100.0/24 [120/1] via 172.16.14.2, 00:00:20, Ethernet0/2
R    192.168.200.0/24 [120/1] via 172.16.14.2, 00:00:20, Ethernet0/2
209.165.201.0/24 is variably subnetted, 2 subnets, 2 masks
C    209.165.201.0/27 is directly connected, Ethernet0/0
L    209.165.201.1/32 is directly connected, Ethernet0/0
R1#
R1#

```

```

R1# show ip configuration
Configuration : 1305 bytes

Version 15.2
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname R2
!
boot-start-marker
boot-end-marker
!
!
no aaa new-model
clock timezone PST -8 0
mai polling-interval 60
no mai auto-configure
no mai pvc

```



```

interface Ethernet0/0
  description ***Link to R3***
  ip address 172.16.11.1 255.255.255.252

interface Ethernet0/1
  no ip address
!
interface Ethernet0/1.1
  description ***Link to Management Segment***
  encapsulation dot1q 1 native
  ip address 192.168.1.1 255.255.255.0
!
interface Ethernet0/1.100
  description ***Link to Server1 Segment***
  encapsulation dot1q 100
  ip address 192.168.100.1 255.255.255.0
!
interface Ethernet0/1.200
  description ***Link to Server2 Segment***
  encapsulation dot1q 200
  ip address 192.168.200.1 255.255.255.0
!
interface Ethernet0/2
  description ***Link to R1***

```

```

interface Ethernet0/2
  description ***Link to R1***
  ip address 172.16.14.2 255.255.255.252
!
interface Ethernet0/3
  description ***Link to LAN***
  ip address 10.10.10.1 255.255.255.0
!
router rip
  version 2
  network 10.0.0.0
  network 172.16.0.0
  network 192.168.1.0
  network 192.168.100.0
  network 192.168.200.0
  no auto-summary
!
ip forward-protocol nd
!
!
no ip http server
no ip http secure-server
!
!

```



```

2 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
Ethernet0/1 is up, line protocol is up
Hardware is AmdP2, address is aabb.cc00.4210 (bia aabb.cc00.4210)
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:00, output 00:00:08, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 1000 bits/sec, 2 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
 4632 packets input, 308536 bytes, 0 no buffer
 Received 4421 broadcasts (0 IP multicasts)
 0 runts, 0 giants, 0 throttles
 0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
 0 input packets with dribble condition detected
512 packets output, 73148 bytes, 0 underruns
 0 output errors, 0 collisions, 0 interface resets

```

```

512 packets output, 73148 bytes, 0 underruns
 0 output errors, 0 collisions, 0 interface resets
2 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
Ethernet0/1.1 is up, line protocol is up
Hardware is AmdP2, address is aabb.cc00.4210 (bia aabb.cc00.4210)
Description: ***Link to Mangement Segment***
Internet address is 192.168.1.1/24
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
Encapsulation 802.1Q Virtual LAN, Vlan ID 1.
ARP type: ARPA, ARP Timeout 04:00:00
Keepalive set (10 sec)
Last clearing of "show interface" counters never
Ethernet0/1.100 is up, line protocol is up
Hardware is AmdP2, address is aabb.cc00.4210 (bia aabb.cc00.4210)
Description: ***Link to Server1 Segment***
Internet address is 192.168.100.1/24
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
Encapsulation 802.1Q Virtual LAN, Vlan ID 200.
ARP type: ARPA, ARP Timeout 04:00:00
Keepalive set (10 sec)

```

```

Keepalive set (10 sec)
Last clearing of "show interface" counters never
Ethernet0/1.100 is up, line protocol is up
Hardware is Am2P2, address is aabb.cc00.4210 (bia aabb.cc00.4210)
Description: ***Link to Server1 Segment***
Internet address is 192.168.100.1/24
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
Encapsulation 802.1Q Virtual LAN, Vlan ID 200.
ARP type: ARPA, ARP Timeout 04:00:00
Keepalive set (10 sec)
Last clearing of "show interface" counters never
Ethernet0/1.200 is up, line protocol is up
Hardware is Am2P2, address is aabb.cc00.4210 (bia aabb.cc00.4210)
Description: ***Link to Server2 Segment***
Internet address is 192.168.200.1/24
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
Encapsulation 802.1Q Virtual LAN, Vlan ID 100.
ARP type: ARPA, ARP Timeout 04:00:00
Keepalive set (10 sec)
Last clearing of "show interface" counters never
Ethernet0/2 is up, line protocol is up
Hardware is Am2P2, address is aabb.cc00.4220 (bia aabb.cc00.4220)
Description: ***Link to R1***

```

```

Keepalive set (10 sec)
Last clearing of "show interface" counters never
Ethernet0/2 is up, line protocol is up
Hardware is Am2P2, address is aabb.cc00.4220 (bia aabb.cc00.4220)
Description: ***Link to R1***
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
128 packets input, 21994 bytes, 0 no buffer
Received 127 broadcasts (77 IP multicasts)
0 runts, 0 giants, 0 throttles
0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
0 input packets with dribble condition detected
345 packets output, 39952 bytes, 0 underruns
0 output errors, 0 collisions, 1 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

```

```

0 output buffer swapped out
line protocol is up, line protocol is up
address is 10.10.10.1, address is 10.10.10.1 (via 10.10.10.1)
Description: ***Link to LAN***
Internet address is 10.10.10.1/24
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
ARP type: ARPA, ARP Timeout 04:00:00
Last input never, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
  0 packets input, 0 bytes, 0 no buffer
  Received 0 broadcasts (0 IP multicasts)
  0 runts, 0 giants, 0 throttles
  0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
  0 input packets with dribble condition detected
 344 packets output, 42752 bytes, 0 underruns
  0 output errors, 0 collisions, 6 interface resets
  0 unknown protocol drops

```

```

0 collisions, 6 interface resets
0 unknown protocol drops
0 babble, 0 late collision, 0 deferred
0 lost carrier, 0 no carrier
0 output buffer failures, 0 output buffers swapped out
R2#
R2#
R2#show ip interface brief
Interface          IP-Address      OK? Method Status  Prot
ocol
Ethernet0/0        172.16.11.1     YES NVRAM  up      up
Ethernet0/1        unassigned      YES NVRAM  up      up
Ethernet0/1.1      192.168.1.1     YES NVRAM  up      up
Ethernet0/1.100    192.168.100.1   YES NVRAM  up      up
Ethernet0/1.200    192.168.200.1   YES NVRAM  up      up
Ethernet0/2        172.16.14.2     YES NVRAM  up      up
Ethernet0/3        10.10.10.1      YES NVRAM  up      up
R2#
R2#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route

```

```

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

Gateway of last resort is 172.16.14.1 to network 0.0.0.0

R* 0.0.0.0/0 [120/1] via 172.16.14.1, 00:00:23, Ethernet0/2
10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C 10.10.10.0/24 is directly connected, Ethernet0/3
L 10.10.10.1/32 is directly connected, Ethernet0/3
172.16.0.0/16 is variably subnetted, 5 subnets, 3 masks
C 172.16.11.0/30 is directly connected, Ethernet0/0
L 172.16.11.1/32 is directly connected, Ethernet0/0
C 172.16.14.0/30 is directly connected, Ethernet0/2
L 172.16.14.2/32 is directly connected, Ethernet0/2
R 172.16.16.0/24 [120/1] via 172.16.14.1, 00:00:23, Ethernet0/2
192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.1.0/24 is directly connected, Ethernet0/1.1

```

```

Gateway of last resort is 172.16.14.1 to network 0.0.0.0

0.0.0.0/0 [120/1] via 172.16.14.1, 00:00:23, Ethernet0/2
10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
10.10.10.0/24 is directly connected, Ethernet0/3
10.10.10.1/32 is directly connected, Ethernet0/3
172.16.0.0/16 is variably subnetted, 5 subnets, 3 masks
C 172.16.11.0/30 is directly connected, Ethernet0/0
L 172.16.11.1/32 is directly connected, Ethernet0/0
C 172.16.14.0/30 is directly connected, Ethernet0/2
L 172.16.14.2/32 is directly connected, Ethernet0/2
R 172.16.16.0/24 [120/1] via 172.16.14.1, 00:00:23, Ethernet0/2
192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.1.0/24 is directly connected, Ethernet0/1.1
L 192.168.1.1/32 is directly connected, Ethernet0/1.1
192.168.100.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.100.0/24 is directly connected, Ethernet0/1.100
L 192.168.100.1/32 is directly connected, Ethernet0/1.100
192.168.200.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.200.0/24 is directly connected, Ethernet0/1.200
L 192.168.200.1/32 is directly connected, Ethernet0/1.200

R2#

```





```

R3
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
ARP type: ARPA, ARP Timeout 04:00:00
Last input never, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
  0 packets input, 0 bytes, 0 no buffer
  Received 0 broadcasts (0 IP multicasts)
  0 runts, 0 giants, 0 throttles
  0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
  0 input packets with dribble condition detected
  666 packets output, 71699 bytes, 0 underruns
  0 output errors, 0 collisions, 11 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
Ethernet0/1 is up, line protocol is up
Hardware is AndP2, address is aabb.cc00.4310 (bia aabb.cc00.4310)
Description: ***Link to R2***
    
```

```

R3
Hardware is AndP2, address is aabb.cc00.4310 (bia aabb.cc00.4310)
Description: ***Link to R2***
Internet address is 172.16.11.2/30
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:21, output 00:00:05, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
  316 packets input, 74089 bytes, 0 no buffer
  Received 316 broadcasts (200 IP multicasts)
  0 runts, 0 giants, 0 throttles
  0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
  0 input packets with dribble condition detected
  669 packets output, 71888 bytes, 0 underruns
  0 output errors, 0 collisions, 1 interface resets
  0 unknown protocol drops
  0 babbles, 0 late collision, 0 deferred
  0 lost carrier, 0 no carrier
    
```

```

R3
 0 babbles, 0 late collision, 0 deferred
 0 lost carrier, 0 no carrier
 0 output buffer failures, 0 output buffers swapped out
Ethernet0/2 is administratively down, line protocol is down
Hardware is AndP2, address is aabb.cc00.4320 (bia aabb.cc00.4320)
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
ARP type: ARPA, ARP Timeout 04:00:00
Last input never, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
 5 minute input rate 0 bits/sec, 0 packets/sec
 5 minute output rate 0 bits/sec, 0 packets/sec
  0 packets input, 0 bytes, 0 no buffer
Received 0 broadcasts (0 IP multicasts)
 0 runts, 0 giants, 0 throttles
 0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
 0 input packets with dribble condition detected
 0 packets output, 0 bytes, 0 underruns
 0 output errors, 0 collisions, 0 interface resets
 0 unknown protocol drops

```

```

R3
 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
Ethernet0/3 is administratively down, line protocol is down
Hardware is AndP2, address is aabb.cc00.4330 (bia aabb.cc00.4330)
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
  reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
ARP type: ARPA, ARP Timeout 04:00:00
Last input never, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
 5 minute input rate 0 bits/sec, 0 packets/sec
 5 minute output rate 0 bits/sec, 0 packets/sec
  0 packets input, 0 bytes, 0 no buffer
Received 0 broadcasts (0 IP multicasts)
 0 runts, 0 giants, 0 throttles
 0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
 0 input packets with dribble condition detected
 0 packets output, 0 bytes, 0 underruns
 0 output errors, 0 collisions, 0 interface resets

```

```

R3
0 input packets with dribble condition detected
0 packets output, 0 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
R3#
R3#
R3#show ip interface brief
Interface                IP-Address      OK? Method Status      Prot
ocol
Ethernet0/0              10.10.12.1      YES NVRAM  up          up
Ethernet0/1              172.16.11.2     YES NVRAM  up          up
Ethernet0/2              unassigned      YES NVRAM  administratively down down
Ethernet0/3              unassigned      YES NVRAM  administratively down down
R3#
R3#
R3#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route

```

```

R3
Ethernet0/2              unassigned      YES NVRAM  administratively down down
Ethernet0/3              unassigned      YES NVRAM  administratively down down
R3#
R3#
R3#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route, H - NHRP, I - LISP
       + - replicated route, % - next hop override

Gateway of last resort is not set

10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C    10.10.12.0/24 is directly connected, Ethernet0/0
L    10.10.12.1/32 is directly connected, Ethernet0/0
172.16.0.0/16 is variably subnetted, 2 subnets, 2 masks
C    172.16.11.0/30 is directly connected, Ethernet0/1
L    172.16.11.2/32 is directly connected, Ethernet0/1
R3#
R3#
R3#

```

```
L2SW1
!
no aaa new-model
clock timezone PST -8 0
!
ip cef
!
!
!
no ipv6 cef
ipv6 multicast rpf use-bgp
!
!
!
!
!
!
!
!
!
!
spanning-tree mode pvst
spanning-tree extend system-id
!
!
!
!
!
!
!
!
!
!
vlan internal allocation policy ascending
!
!
```

```
L2SW1
L2SW1#show run
L2SW1#show running-config
Building configuration...

Current configuration : 1074 bytes
!
version 15.1
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
service compress-config
!
hostname L2SW1
!
boot-start-marker
boot-end-marker
!
!
!
!
!
no aaa new-model
clock timezone PST -8 0
!
ip cef
!
```

```
L2SW1
interface Vlan1
 ip address 192.168.1.254 255.255.255.0
 !
 ip default-gateway 192.168.1.1
 !
 no ip http server
 !
 !
 !
 !
 control-plane
 !
 !
 line con 0
 logging synchronous
 line aux 0
 line vty 0 4
 login
 !
end
L2SW1#
L2SW1#
L2SW1#show interfaces
Ethernet0/0 is up, line protocol is up (connected)
```

```
L2SW1
!
interface Ethernet0/0
 description ***Link to R2***
 switchport trunk encapsulation dot1q
 switchport mode trunk
 duplex auto
 !
interface Ethernet0/1
 description ***Link to Server1 segment***
 switchport access vlan 100
 switchport mode access
 duplex auto
 !
interface Ethernet0/2
 description ***Link to Server2 Segment***
 switchport access vlan 200
 switchport mode access
 duplex auto
 !
interface Ethernet0/3
 duplex auto
 !
interface Vlan1
 ip address 192.168.1.254 255.255.255.0
 !
```

```

L2SW1
L2SW1#show interfaces
Ethernet0/0 is up, line protocol is up (connected)
  Hardware is AndP2, address is aabb.cc00.4500 (bia aabb.cc00.4500)
  Description: ***Link to R2***
  MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  Auto-duplex, Auto-speed, media type is unknown
  input flow-control is off, output flow-control is unsupported
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:07, output 00:00:00, output hang never
  Last clearing of "show interface" counters never
  Input queue: 12/2000/0/0 (size/max/drops/flushes); Total output drops: 0
  Queuing strategy: fifo
  Output queue: 0/0 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 1000 bits/sec, 2 packets/sec
    1447 packets input, 208877 bytes, 0 no buffer
    Received 139 broadcasts (0 multicasts)
    0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
    0 input packets with dribble condition detected
    13457 packets output, 919293 bytes, 0 underruns
    0 output errors, 0 collisions, 0 interface resets
  
```

```

L2SW1
    13457 packets output, 919293 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
Ethernet0/1 is up, line protocol is up (connected)
  Hardware is AndP2, address is aabb.cc00.4510 (bia aabb.cc00.4510)
  Description: ***Link to Server1 segment***
  MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  Auto-duplex, Auto-speed, media type is unknown
  input flow-control is off, output flow-control is unsupported
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:07, output 00:00:01, output hang never
  Last clearing of "show interface" counters never
  Input queue: 5/2000/0/0 (size/max/drops/flushes); Total output drops: 0
  Queuing strategy: fifo
  Output queue: 0/0 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    755 packets input, 80219 bytes, 0 no buffer
    Received 123 broadcasts (0 multicasts)
  
```

```

L2SW1
755 packets input, 80219 bytes, 0 no buffer
Received 123 broadcasts (0 multicasts)
0 runts, 0 giants, 0 throttles
0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
0 input packets with dribble condition detected
3867 packets output, 268544 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
Ethernet0/2 is up, line protocol is up (connected)
Hardware is AndP2, address is aabb.cc00.4520 (bia aabb.cc00.4520)
Description: ***Link to Server2 Segaent***
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
Auto-duplex, Auto-speed, media type is unknown
input flow-control is off, output flow-control is unsupported
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:07, output 00:00:01, output hang never
Last clearing of "show interface" counters never
Input queue: 5/2000/0/0 (size/max/drops/flushes): Total output drops: 0
Queueing strategy: fifo
  
```

```

L2SW1
Queueing strategy: fifo
Output queue: 0/0 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
758 packets input, 81010 bytes, 0 no buffer
Received 125 broadcasts (0 multicasts)
0 runts, 0 giants, 0 throttles
0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
0 input packets with dribble condition detected
3867 packets output, 268544 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
Ethernet0/3 is up, line protocol is up (connected)
Hardware is AndP2, address is aabb.cc00.4530 (bia aabb.cc00.4530)
MTU 1500 bytes, BW 10000 Kbit/sec, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
Auto-duplex, Auto-speed, media type is unknown
input flow-control is off, output flow-control is unsupported
ARP type: ARPA, ARP Timeout 04:00:00
Last input never, output never, output hang never
  
```

```

L2SW1
Last input never, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/2000/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/0 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
  0 packets input, 0 bytes, 0 no buffer
Received 0 broadcasts (0 multicasts)
  0 runts, 0 giants, 0 throttles
  0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
  0 input packets with dribble condition detected
3566 packets output, 252186 bytes, 0 underruns
  0 output errors, 0 collisions, 55 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
Vlan1 is up, line protocol is up
Hardware is Ethernet SVI, address is aabb.cc80.4500 (bia aabb.cc80.4500)
Internet address is 192.168.1.254/24
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
  
```

```

L2SW1
Keepalive not supported
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:12, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
  235 packets input, 42480 bytes, 0 no buffer
Received 235 broadcasts (0 IP multicasts)
  0 runts, 0 giants, 0 throttles
  0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
  11 packets output, 830 bytes, 0 underruns
  0 output errors, 0 interface resets
  0 unknown protocol drops
  0 output buffer failures, 0 output buffers swapped out
L2SW1#
L2SW1#
L2SW1#show ip interface brief
Interface          IP-Address      OK? Method Status  Protocol
Ethernet0/0        unassigned     YES unset  up      up
Ethernet0/1        unassigned     YES unset  up      up
Ethernet0/2        unassigned     YES unset  up      up
Ethernet0/3        unassigned     YES unset  up      up
  
```

```

L2SW1
0 output buffer failures, 0 output buffers swapped out
L2SW1#
L2SW1#
L2SW1#show ip interface brief
Interface                IP-Address      OK? Method Status      Protocol
Ethernet0/0              unassigned     YES unset  up         up
Ethernet0/1              unassigned     YES unset  up         up
Ethernet0/2              unassigned     YES unset  up         up
Ethernet0/3              unassigned     YES unset  up         up
Vlan1                    192.168.1.254  YES NVRAM  up         up
L2SW1#
L2SW1#
L2SW1#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route, H - NHRP, I - LISP
       + - replicated route, % - next hop override

Gateway of last resort is not set

192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks

```

```

L2SW1
Ethernet0/0              unassigned     YES unset  up         up
Ethernet0/1              unassigned     YES unset  up         up
Ethernet0/2              unassigned     YES unset  up         up
Ethernet0/3              unassigned     YES unset  up         up
Vlan1                    192.168.1.254  YES NVRAM  up         up
L2SW1#
L2SW1#
L2SW1#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route, H - NHRP, I - LISP
       + - replicated route, % - next hop override

Gateway of last resort is not set

192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.1.0/24 is directly connected, Vlan1
L       192.168.1.254/32 is directly connected, Vlan1
L2SW1#
L2SW1#
L2SW1#

```

Server1 and Server2 are unable to communicate with the rest of the network. Your initial check with system administrators shows that IP address settings are correctly configured on the server side. What could be an issue?

- A. The VLAN encapsulation is misconfigured on the router subinterfaces.
- B. The IP address is misconfigured on the primary router interface.
- C. The Router is missing subinterface configuration.
- D. The Trunk is not configured on the L2SW1 switch.

**Answer: A**

Explanation:

```

R2
!
interface Ethernet0/1.100
description ***Link to Server1 Segment***
encapsulation dot1Q 200
ip address 192.168.100.1 255.255.255.0
!
interface Ethernet0/1.200
description ***Link to Server2 Segment***
encapsulation dot1Q 100
ip address 192.168.200.1 255.255.255.0
!
    
```

**NEW QUESTION 667**

Which two Qos tools can provide congestion management?

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

Answer: BE

**NEW QUESTION 668**

Which two statements about configuring an EtherChannel on a Cisco switch are true? (Choose two.)

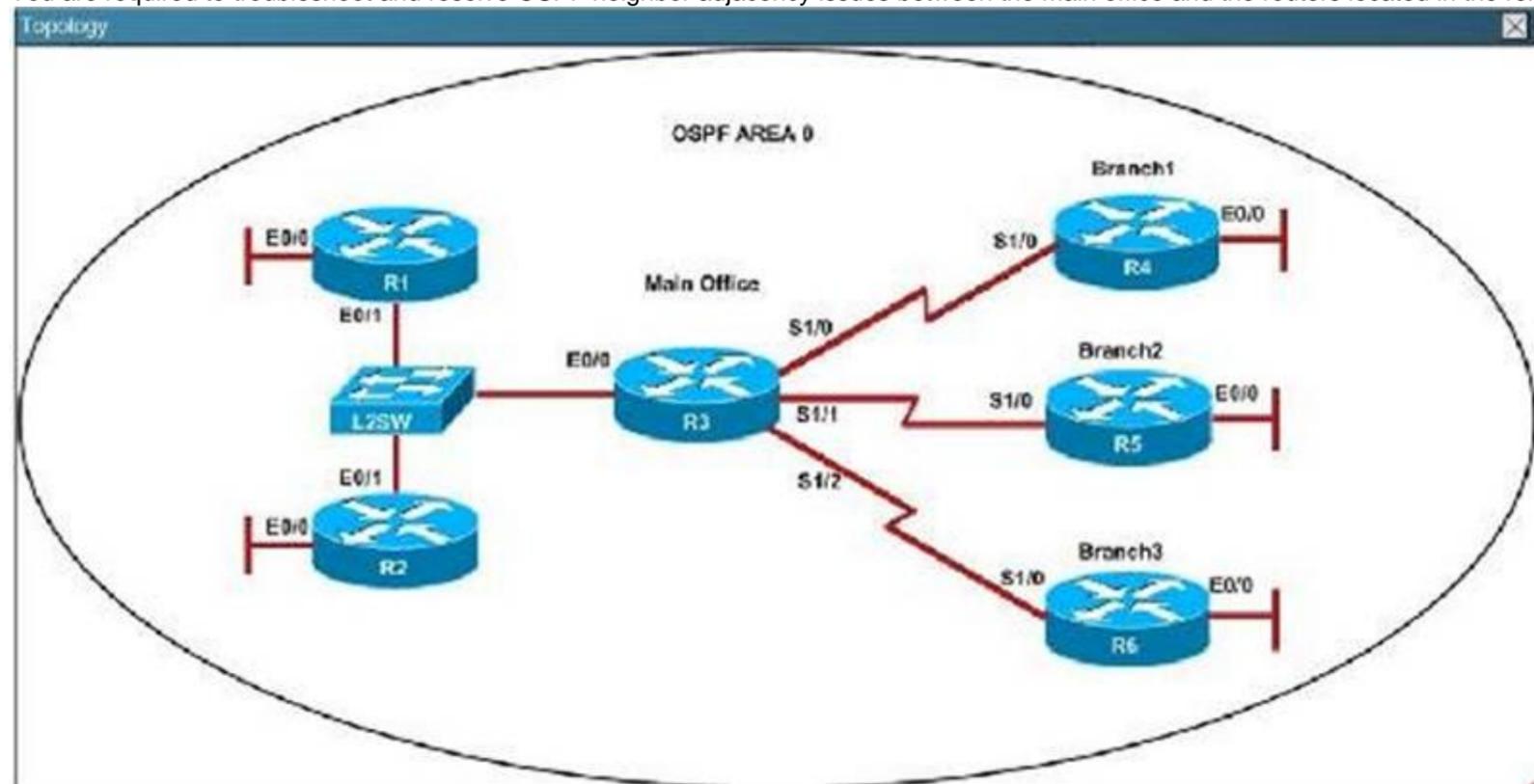
- A. The interfaces configured in the EtherChannel must be on the same physical switch.
- B. The interfaces configured in the EtherChannel must operate at the same speed and duplex mode
- C. An EtherChannel can operate in Layer 2 mode only.
- D. The interfaces configured in the EtherChannel must be part of the same VLAN or trunk.
- E. The interfaces configured in the EtherChannel must have the same STP port path cost

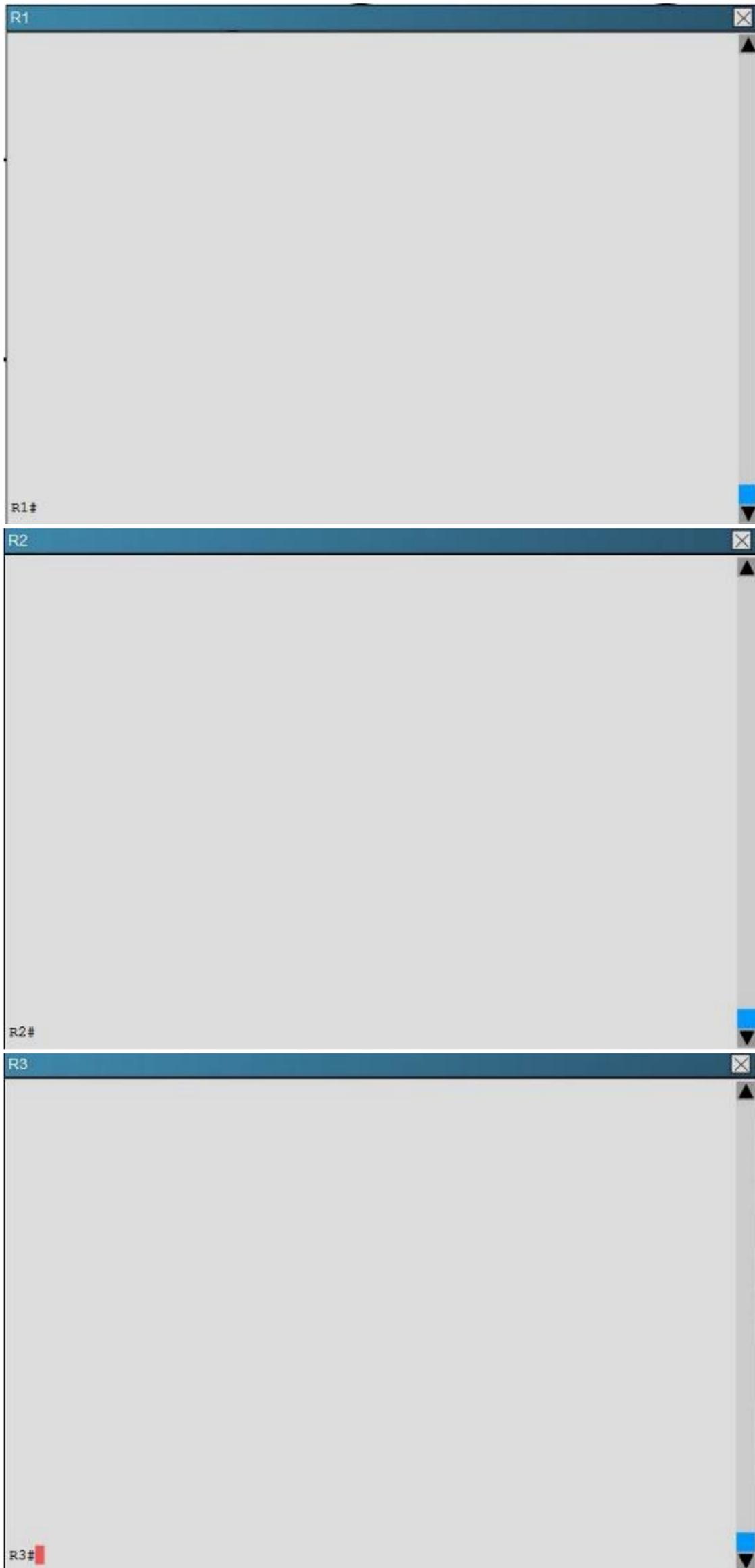
Answer: BD

**NEW QUESTION 669**

Scenario

Refer to the topology. Your company has decided to connect the main office with three other remote branch offices using point-to-point serial links. You are required to troubleshoot and resolve OSPF neighbor adjacency issues between the main office and the routers located in the remote branch offices.





The image displays three vertically stacked, empty rectangular boxes, each with a dark blue header bar. The top box is labeled 'R4' in the top-left corner and 'R4#' in the bottom-left corner. The middle box is labeled 'R5' in the top-left corner and 'R5#' in the bottom-left corner. The bottom box is labeled 'R6' in the top-left corner and 'R6#' in the bottom-left corner. Each box has a vertical scrollbar on the right side, indicating they are scrollable areas. The boxes are currently empty, suggesting they are intended for screenshots or answers to questions.

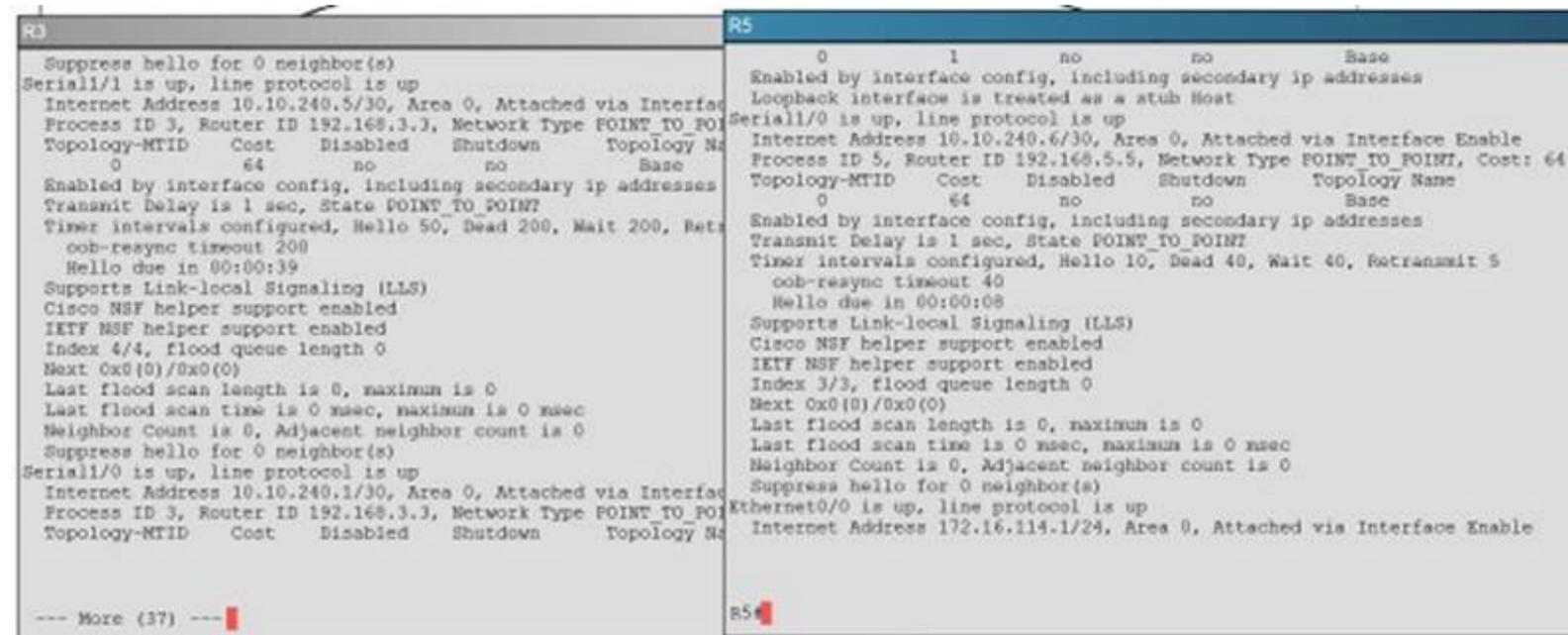


An OSPF neighbor adjacency is not formed between R3 in the main office and R5 in the Branch2 office. What is causing the problem?

- A. There is an area ID mismatch.
- B. There is a PPP authentication issue; a password mismatch.
- C. There is an OSPF hello and dead interval mismatch.
- D. There is a missing network command in the OSPF process on R5.

**Answer: C**

**Explanation:** The “show ip ospf interface command on R3 and R5 shows that the hello and dead intervals do not match. They are 50 and 200 on R3 and 10 and 40 on R5.



**NEW QUESTION 674**

Which two statements about late collisions are true? (Choose two.)

- A. They may indicate a duplex mismatch.
- B. By definition, they occur after the 512th bit of the frame has been transmitted.
- C. They indicate received frames that did not pass the FCS match.
- D. They are frames that exceed 1518 bytes.
- E. They occur when CRC errors and interference occur on the cable.

**Answer: AB**

**NEW QUESTION 679**

Which two statements about EUI-64 addressing are true? (Choose two)

- A. A 64-bit interface identifier is derived from the interface MAC address
- B. A 96-bit interface identifier is derived from the interface MAC address.
- C. A locally administered address has the universal/local bit set to 0.
- D. The address includes the hex digits FFFE after the first 24 bits of the interface MAC address
- E. The address includes the hex digits FFFE after the last 24 bits of the interface MAC address

**Answer: CD**

**NEW QUESTION 680**

What is a valid HSRP virtual MAC address?

- A. 0000.5E00.01A3
- B. 0007.B400.AE01
- C. 0000.0C07.AC15
- D. 0007.5E00.B301

**Answer: C**

**Explanation:** With HSRP, two or more devices support a virtual router with a fictitious MAC address and unique IP address. There are two version of HSRP.  
+ With HSRP version 1, the virtual router's MAC address is 0000.0c07.ACxx , in which xx is the HSRP group.  
+ With HSRP version 2, the virtual MAC address is 0000.0C9F.Fxxx, in which xxx is the HSRP group. Note: Another case is HSRP for IPv6, in which the MAC address range from 0005.73A0.0000 through 0005.73A0.0FFF.

**NEW QUESTION 684**

What SNMP message alerts the manager to a condition on the network?

- A. response
- B. get
- C. trap
- D. capture

**Answer: C**

**Explanation:** An agent can send unsolicited traps to the manager. Traps are messages alerting the SNMP manager to a condition on the network. Traps can mean improper user authentication, restarts, link status (up or down), MAC address tracking, closing of a TCP connection, loss of connection to a neighbor, or other significant events.

Reference:

[http://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst2950/software/release/12-1\\_9\\_ea1/configuration/guid](http://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst2950/software/release/12-1_9_ea1/configuration/guid)

**NEW QUESTION 689**

Which three statements about the features of SNMPv2 and SNMPv3 are true? (Choose three.)

- A. SNMPv3 enhanced SNMPv2 security features.
- B. SNMPv3 added the Inform protocol message to SNMP.
- C. SNMPv2 added the Inform protocol message to SNMP.
- D. SNMPv3 added the GetBulk protocol messages to SNMP.
- E. SNMPv2 added the GetBulk protocol message to SNMP.
- F. SNMPv2 added the GetNext protocol message to SNMP.

**Answer: ACE**

**Explanation:** SNMPv1/v2 can neither authenticate the source of a management message nor provide encryption. Without authentication, it is possible for nonauthorized users to exercise SNMP network management functions. It is also possible for nonauthorized users to eavesdrop on management information as it passes from managed systems to the management system. Because of these deficiencies, many SNMPv1/v2 implementations are limited to simply a read-only capability, reducing their utility to that of a network monitor; no network control applications can be supported. To correct the security deficiencies of SNMPv1/v2, SNMPv3 was issued as a set of Proposed Standards in January 1998. -> A is correct.

The two additional messages are added in SNMP2 (compared to SNMPv1)

**GetBulkRequest** The GetBulkRequest message enables an SNMP manager to access large chunks of data. GetBulkRequest allows an agent to respond with as much information as will fit in the response PDU. Agents that cannot provide values for all variables in a list will send partial information. -> E is correct.

**InformRequest** The InformRequest message allows NMS stations to share trap information. (Traps are issued by SNMP agents when a device change occurs.)

InformRequest messages are generally used between NMS stations, not between NMS stations and agents. -> C is correct.

Note: These two messages are carried over SNMPv3.

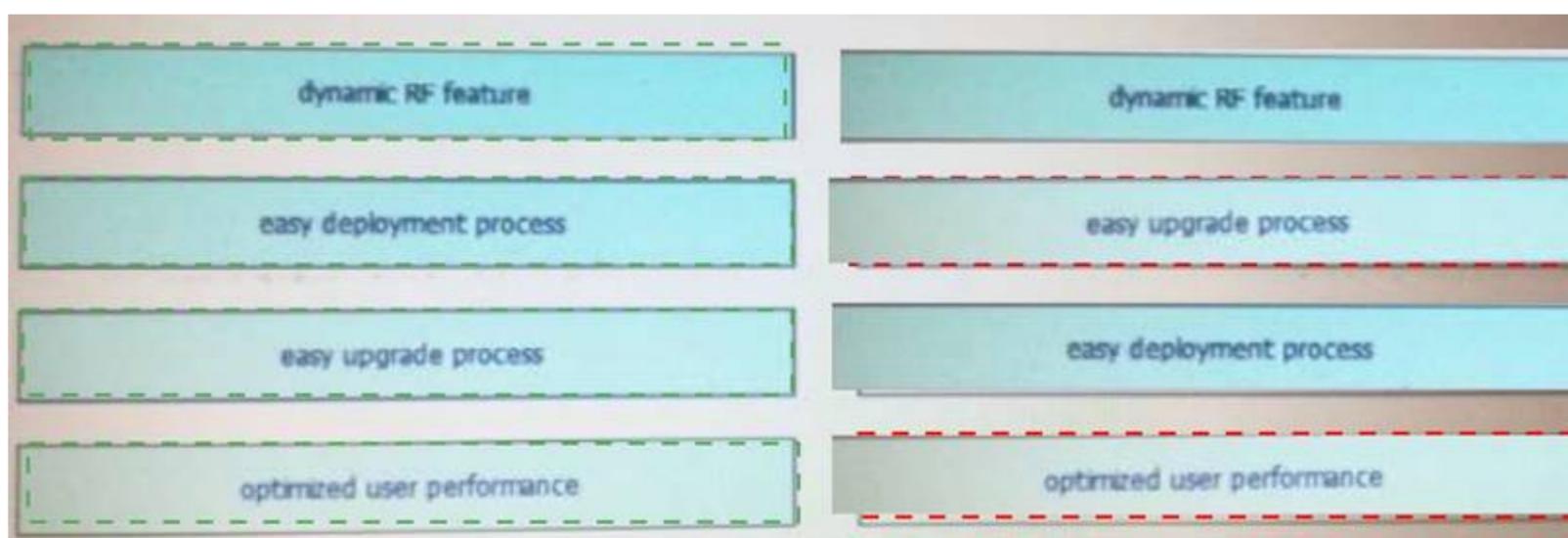
**NEW QUESTION 694**

Drag and drop the benefits of a cisco wireless Lan controller from the left onto the correct examples on the right

dynamic RF feature	Access points automatically adjust their signal strength.
easy deployment process	The controller image is deployed automatically to access points
easy upgrade process	The controller provides centralized management of users and VLANs.
optimized user performance	The controller uses load balancing to maximize throughput.

Answer:

Explanation:

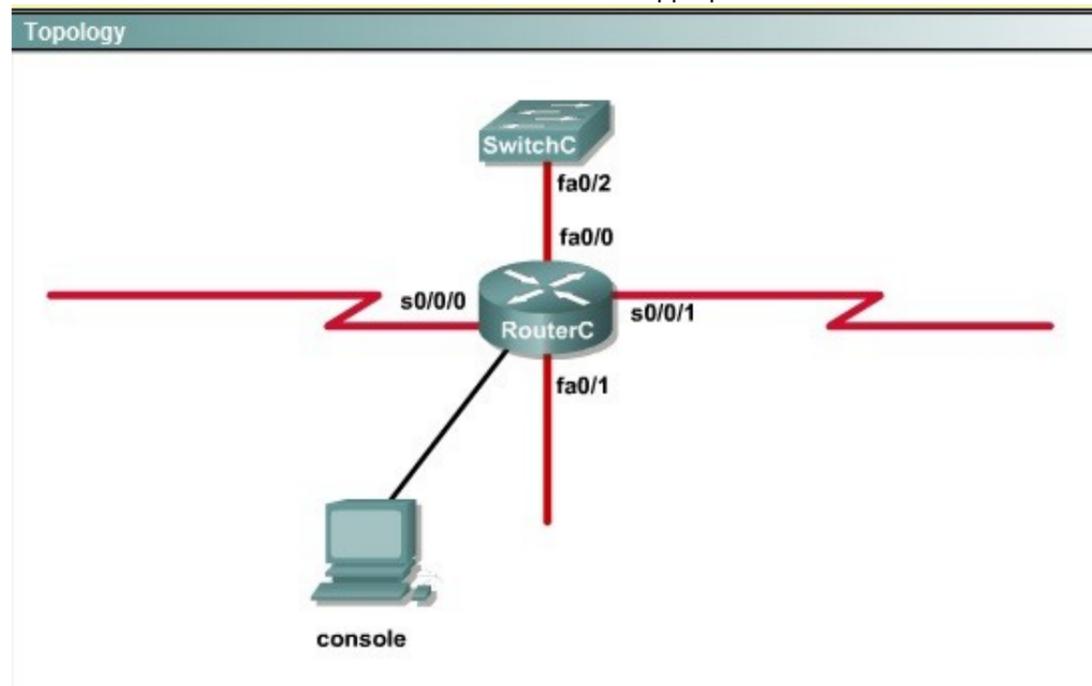


**NEW QUESTION 698**

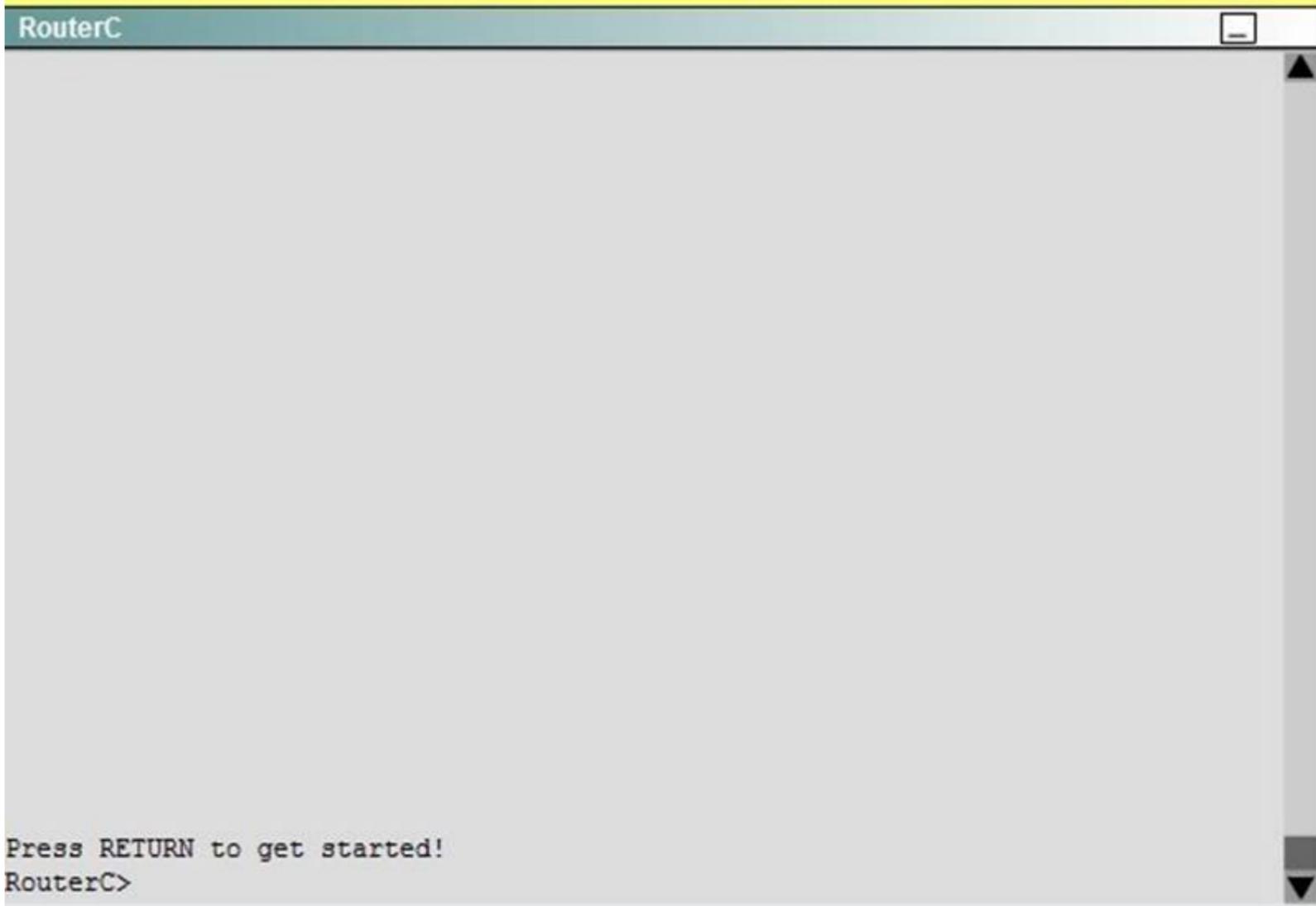
An administrator is trying to ping and telnet from SwitchC to RouterC with the results shown below.

```
SwitchC>
SwitchC> ping 10.4.4.3
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.4.4.3, timeout is 2 seconds:
U.U.U
Success rate is 0 percent (0/5)
SwitchC>
SwitchC> telnet 10.4.4.3
Trying 10.4.4.3 ...
% Destination unreachable; gateway or host down
SwitchC>
```

Click the console connected to RouterC and issue the appropriate commands to answer the questions.



```
RouterC
```



```
Press RETURN to get started!  
RouterC>
```

<output omitted>

```
interface Loopback1
 ip address 172.16.4.1 255.255.255.0
!
interface Loopback2
 ip address 10.145.145.1 255.255.255.0
 ipv6 address 2001:410:2:3::/64 eui-64
!
interface FastEthernet0/0
 ip address 10.4.4.3 255.255.255.0
 ip access-group 106 in
 duplex auto
 speed auto
!
interface FastEthernet0/1
 no ip address
 shutdown
 duplex auto
 speed auto
!
interface Serial0/0/0
 bandwidth 64
 no ip address
 ip access-group 102 out
 encapsulation frame-relay
 ip ospf authentication
 ip ospf authentication
 ip ospf authentication-key san-fran
!
interface Serial0/0/0.1 point-to-point
 ip address 10.140.3.2 255.255.255.0
 ip authentication mode eigrp 100 md5
 ip authentication key-chain eigrp 100 icndchain
 frame-relay interface-dlci 120
!
interface Serail0/0/1
 bandwidth 64
 ip address 10.45.45.1 255.255.255.0
 ip access-group 102 in
 ip authentication mode eigrp 100 md5
 ip authentication key-chain eigrp 100 icndchain
```

```
router eigrp 100
network 10.0.0.0
network 172.16.0.0
network 192.168.2.0
not auto-summary
!
router ospf 100
log-adjacency-changes
network 10.4.4.3 0.0.0.0 area 0
network 10.45.45.1 0.0.0.0 area 0
network 10.140.3.2 0.0.0.0 area 0
network 192.168.2.62 0.0.0.0 area 0
!
router rip
version 2
network 10.0.0.0
network 172.16.0.0
!
ip default-gateway 10.1.1.2
!
!
ip http server
no ip http secure-server
!
```

```

access-list 102 permit tcp any any eq ftp
access-list 102 permit tcp any any eq ftp-data
access-list 102 deny tcp any any eq telnet
access-list 102 deny icmp any any echo-reply
access-list 102 permit ip any any

access-list 104 permit tcp any any eq ftp
access-list 104 permit tcp any any eq ftp-data
access-list 104 deny tcp any any eq telnet
access-list 104 permit icmp any any echo
access-list 104 deny icmp any any echo-reply
access-list 104 permit ip any any

access-list 106 permit tcp any any eq ftp
access-list 106 permit tcp any any ftp-data
access-list 106 deny tcp any any eq telnet
access-list 106 permit icmp any any echo-reply

access-list 110 permit udp any any eq domain
access-list 110 permit udp any eq domain any
access-list 110 permit tcp any any eq domain
access-list 110 permit tcp any eq domain any
access-list 110 permit tcp any any

access-list 114 permit ip 10.4.4.0.0.0.255 any

access-list 115 permit ip 0.0.0.0 255.255.255.0 any

access-list 122 deny tcp any any
access-list 122 deny imp any any echo-reply
access-list 122 permit ip any any
!
<output omitted>

```

Which will fix the issue and allow ONLY ping to work while keeping telnet disabled?

- A. Correctly assign an IP address to interface fa0/1.
- B. Change the ip access-group command on fa0/0 from “in” to “out”.
- C. Remove access-group 106 in from interface fa0/0 and add access-group 115 in.
- D. Remove access-group 102 out from interface s0/0/0 and add access-group 114 in.
- E. Remove access-group 106 in from interface fa0/0 and add access-group 104 in.

**Answer:** E

**Explanation:** Let’s have a look at the access list 104:

```

access-list 104 permit tcp any any eq ftp
access-list 104 permit tcp any any eq ftp-data
access-list 104 deny tcp any any eq telent
access-list 104 permit icmp any any echo
access-list 104 permit icmp any any echo-reply
access-list 104 permit ip any any

```

The question does not ask about ftp traffic so we don’t care about the two first lines. The 3rd line denies all telnet traffic and the 4th line allows icmp traffic to be sent (ping). Remember that the access list 104 is applied on the inbound direction so the 5th line “access-list 104 deny icmp any any echo-reply” will not affect our icmp traffic because the “echo-reply” message will be sent over the outbound direction.

**NEW QUESTION 701**

Which two statements about Ethernet standards are true? (Choose two)

- A. Ethernet is defined by IEEE standard 802.2.
- B. Ethernet is defined by IEEE standard 802.3.
- C. Ethernet 10BASE-T does not support full-duplex.
- D. When an Ethernet network uses CSMA/CD, it terminates transmission as soon as a collision occurs.
- E. When an Ethernet network uses CSMA/C
- F. it terminates transmission as soon as a collision occurs.

**Answer:** BD

**NEW QUESTION 703**

Which three statements about Syslog utilization are true? (Choose three.)

- A. Utilizing Syslog improves network performance.
- B. The Syslog server automatically notifies the network administrator of network problems.
- C. A Syslog server provides the storage space necessary to store log files without using router disk space.
- D. There are more Syslog messages available within Cisco IOS than there are comparable SNMP trap messages.
- E. Enabling Syslog on a router automatically enables NTP for accurate time stamping.
- F. A Syslog server helps in aggregation of logs and alerts.

**Answer:** CDF

**Explanation:** The Syslog sender sends a small (less than 1KB) text message to the Syslog receiver. The Syslog receiver is commonly called "syslogd," "Syslog daemon," or "Syslog server." Syslog messages can be sent via UDP (port 514) and/or TCP (typically, port 5000). While there are some exceptions, such as SSL wrappers, this data is typically sent in clear text over the network. A Syslog server provides the storage space necessary to store log files without using router disk space.

In general, there are significantly more Syslog messages available within IOS as compared to SNMP Trap messages. For example, a Cisco Catalyst 6500 switch running Cisco IOS Software Release 12.2(18)SXF contains about 90 SNMP trap notification messages, but has more than 6000 Syslog event messages.

System logging is a method of collecting messages from devices to a server running a syslog daemon. Logging to a central syslog server helps in aggregation of logs and alerts. Cisco devices can send their log messages to a UNIX-style syslog service. A syslog service accepts messages and stores them in files, or prints them according to a simple configuration file.

Reference: [http://www.cisco.com/c/en/us/products/collateral/services/high-availability/white\\_paper\\_c11-557812.html](http://www.cisco.com/c/en/us/products/collateral/services/high-availability/white_paper_c11-557812.html)

**NEW QUESTION 705**

Which two statements about stacking Cisco switches are true? (Choose two )

- A. Each switch manages its own MAC address table.
- B. It enables the administrator to manage multiple switches from a single management interface.
- C. When a new master switch is elected, it queries the previous master for its running configuration
- D. The administrator can create only one stack of switches in a network which is under the same administrative domain
- E. The administrator can add additional switches to the stack as demand increases

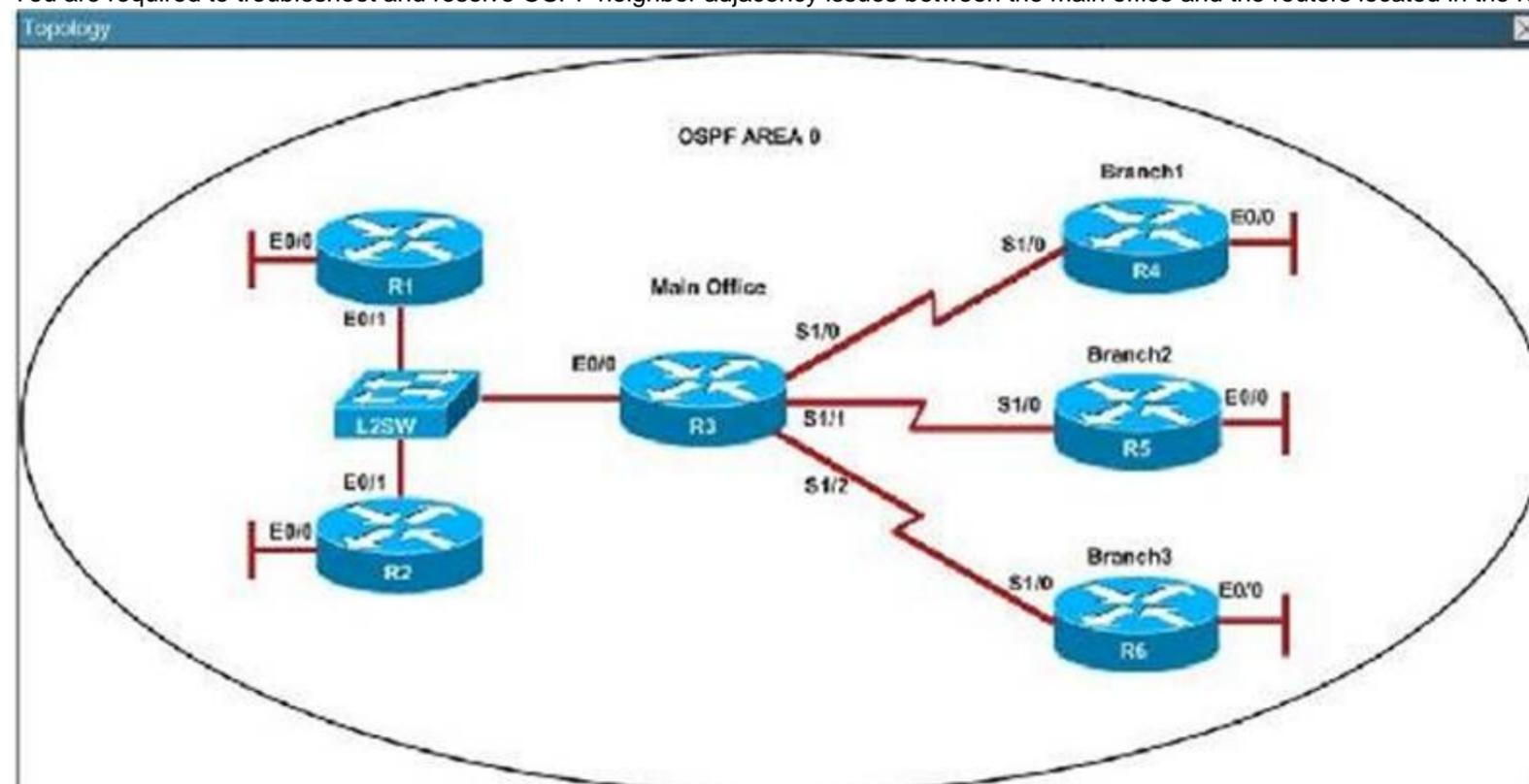
**Answer:** BC

**NEW QUESTION 708**

Scenario:

Refer to the topology. Your company has decided to connect the main office with three other remote branch offices using point-to-point serial links.

You are required to troubleshoot and resolve OSPF neighbor adjacency issues between the main office and the routers located in the remote branch offices.



The image displays three vertically stacked, empty rectangular panels, each representing a window or a section of a document. Each panel has a dark blue title bar at the top with a close button (an 'X' icon) on the right. The panels are labeled 'R1', 'R2', and 'R3' in their respective title bars. The main content area of each panel is light gray and contains no text or graphics. A vertical scroll bar is visible on the right side of each panel, with a blue highlight at the bottom. In the bottom-left corner of the R3 panel, there is a small red square icon next to the label 'R3#'. The overall layout is clean and minimalist, typical of a software interface or a document viewer.

The image displays three vertically stacked, empty rectangular boxes, each with a dark blue header bar. The top box is labeled 'R4' in the top-left corner and 'R4#' in the bottom-left corner. The middle box is labeled 'R5' in the top-left corner and 'R5#' in the bottom-left corner. The bottom box is labeled 'R6' in the top-left corner and 'R6#' in the bottom-left corner. Each box has a vertical scrollbar on the right side, indicating they are scrollable areas. The boxes are currently empty, suggesting they are intended for screenshots or answers to questions.



An OSPF neighbor adjacency is not formed between R3 in the main office and R4 in the Branch1 office. What is causing the problem?

- A. There is an area ID mismatch.
- B. There is a Layer 2 issue; an encapsulation mismatch on serial links.
- C. There is an OSPF hello and dead interval mismatch.
- D. The R3 router ID is configured on R4.

**Answer:** A

**Explanation:** A show running-config command on R3 and R4 shows that R4 is incorrectly configured for area 2:

R3	R4
<pre> no ip address shutdown ! interface Ethernet0/2 no ip address shutdown ! interface Ethernet0/3 no ip address shutdown ! interface Serial1/0 description ***Connected to R4-Branch1 office*** ip address 10.10.240.1 255.255.255.252 encapsulation ppp ip ospf 3 area 0 serial restart-delay 0 ! interface Serial1/1 description ***Connected to R5-Branch2 office*** ip address 10.10.240.5 255.255.255.252 encapsulation ppp ip ospf hello-interval 50 ip ospf 3 area 0 </pre>	<pre> ! interface Ethernet0/2 no ip address shutdown ! interface Ethernet0/3 no ip address shutdown ! interface Serial1/0 description ***Connected to R3-Main Branch office*** ip address 10.10.240.2 255.255.255.252 encapsulation ppp ip ospf 4 area 2 serial restart-delay 0 ! interface Serial1/1 no ip address shutdown serial restart-delay 0 ! interface Serial1/2 no ip address shutdown </pre>
<pre> ppp authentication chap </pre>	<pre> --- More (37) --- </pre>

**NEW QUESTION 709**

Which two are advantages of static routing when compared to dynamic routing? (Choose two.)

- A. Configuration complexity decreases as network size increases.
- B. Security increases because only the network administrator may change the routing table.
- C. Route summarization is computed automatically by the router.
- D. Routing tables adapt automatically to topology changes.
- E. An efficient algorithm is used to build routing tables, using automatic updates.
- F. Routing updates are automatically sent to neighbors.
- G. Routing traffic load is reduced when used in stub network links.

**Answer:** BG

**Explanation:** Since static routing is a manual process, it can be argued that it is more secure (and more prone to human errors) since the network administrator will need to make changes to the routing table directly. Also, in stub networks where there is only a single uplink connection, the load is reduced as stub routers just need a single static default route, instead of many routes that all have the same next hop IP address.

**NEW QUESTION 712**

Which two features can you enable on a switch to capture and analyze frames that transit an interface? (Choose two)

- A. SNMP
- B. SPAN
- C. NetFlow
- D. RSPAN
- E. IP SLA

**Answer:** BC

**NEW QUESTION 713**

Which two features can you enable on a switch to capture and analyze frames that transit an interface ? (choose two)

- A. IP SLA
- B. SPAN
- C. NetFlow
- D. SNMP
- E. RSPAN

**Answer:** CD

**NEW QUESTION 718**

Drag and drop the values in a routing table from the left onto the correct meanings on the right .

administrative distance	code that indicates the method by which the router learned the route
destination network	value used by the router to determine the preferred route
metric	indicator of the trustworthiness of the route
next hop	network to which the router forwards packets on the associated route
route source	remote network address

**Answer:**

**Explanation:**

administrative distance	metric
destination network	route source
metric	administrative distance
next hop	destination network
route source	next hop

**NEW QUESTION 722**

Which two states are the port states when RSTP has converged? (Choose two.)

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

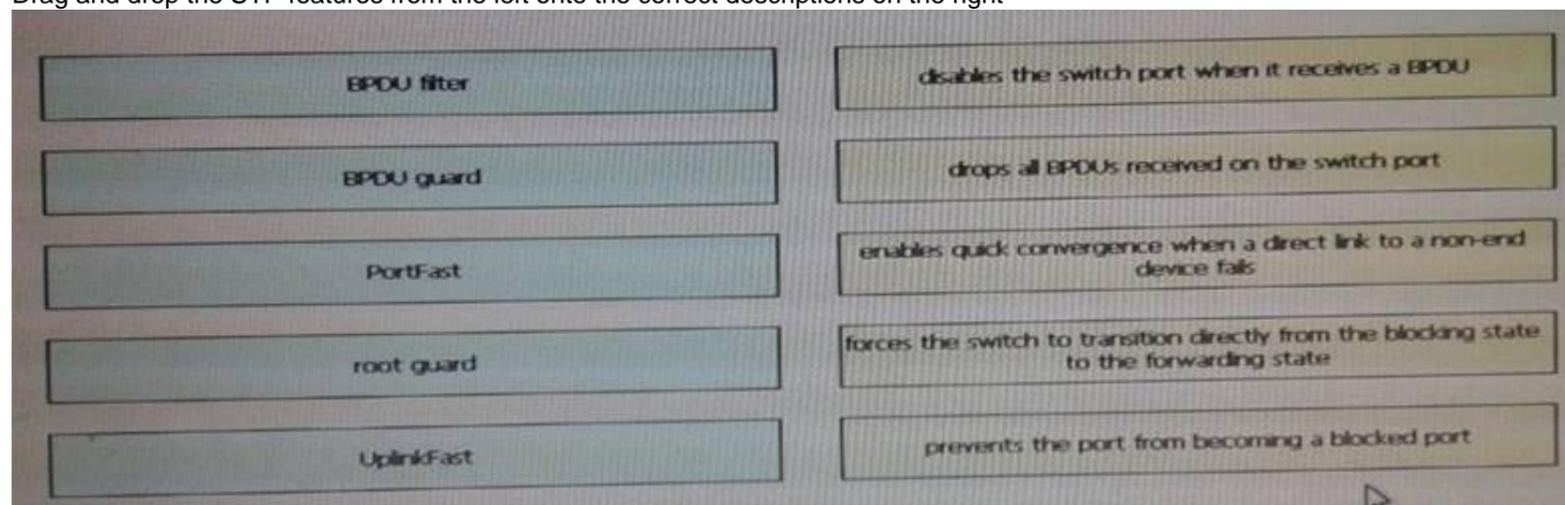
**Answer:** AD

**Explanation:** There are only three port states left in RSTP that correspond to the three possible operational states. The 802.1D disabled, blocking, and listening

states are merged into a unique 802.1w discarding state.  
STP (802.1D) Port State RSTP (802.1w) Port State  
Is Port Included in Active Topology? Is Port Learning MAC Addresses? Disabled  
Discarding No  
No Blocking Discarding No  
No Listening Discarding Yes  
No Learning Learning  
Yes Yes  
Forwarding Forwarding Yes  
Yes Reference:  
[http://www.cisco.com/en/US/tech/tk389/tk621/technologies\\_white\\_paper09186a0080094cfa.shtml#states](http://www.cisco.com/en/US/tech/tk389/tk621/technologies_white_paper09186a0080094cfa.shtml#states)

**NEW QUESTION 725**

Drag and drop the STP features from the left onto the correct descriptions on the right



**Answer:**

**Explanation:** Disables the switch port when it receives a BPDU = BPDU Filter  
Drops all BPDUs received on the switch port = PortFast  
Enable quick convergence when a direct link to a non-end device fails. = UplinkFast  
Forces the switch to transition directly from the blocking state to the forwarding state = BPDU guard  
Prevents the port from becoming a blocked port = root guard

**NEW QUESTION 728**

Which command can you enter to display the operational status of the network ports on a router?

- A. show interface status
- B. show ip interface brief
- C. show running-config interface fastethernet 0/1
- D. show interface switchport

**Answer: B**

**NEW QUESTION 730**

Which step in the router boot process searches for an IOS image to load into the router?

- A. bootstrap
- B. POST
- C. mini-IOS
- D. ROMMON mode

**Answer: A**

**NEW QUESTION 732**

In an Ethernet network, under what two scenarios can devices transmit? (Choose two.)

- A. when they receive a special token
- B. when there is a carrier
- C. when they detect no other devices are sending
- D. when the medium is idle
- E. when the server grants access

**Answer: CD**

**Explanation:** Ethernet network is a shared environment so all devices have the right to access to the medium. If more than one device transmits simultaneously, the signals collide and cannot reach the destination.  
If a device detects another device is sending, it will wait for a specified amount of time before attempting to transmit.  
When there is no traffic detected, a device will transmit its message. While this transmission is occurring, the device continues to listen for traffic or collisions on the LAN. After the message is sent, the device returns to its default listening mode.

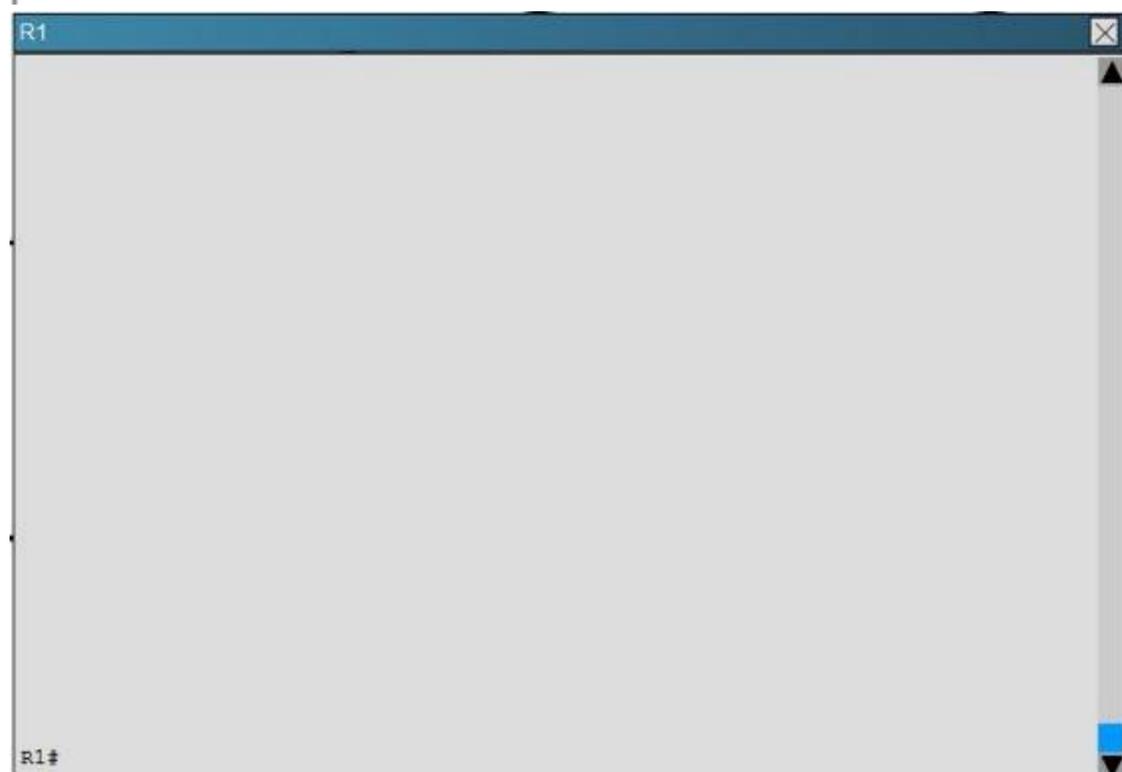
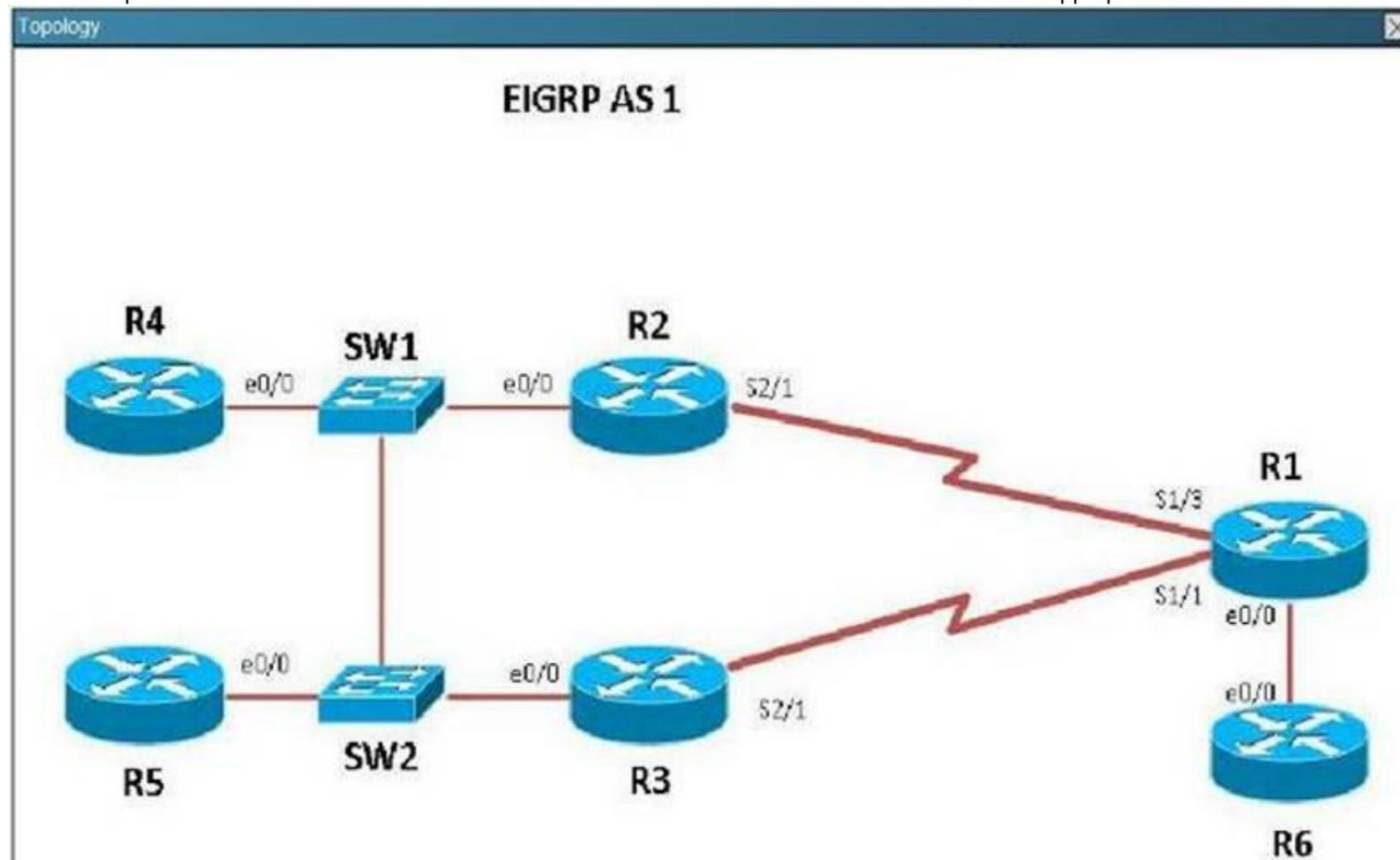
**NEW QUESTION 736**

Scenario

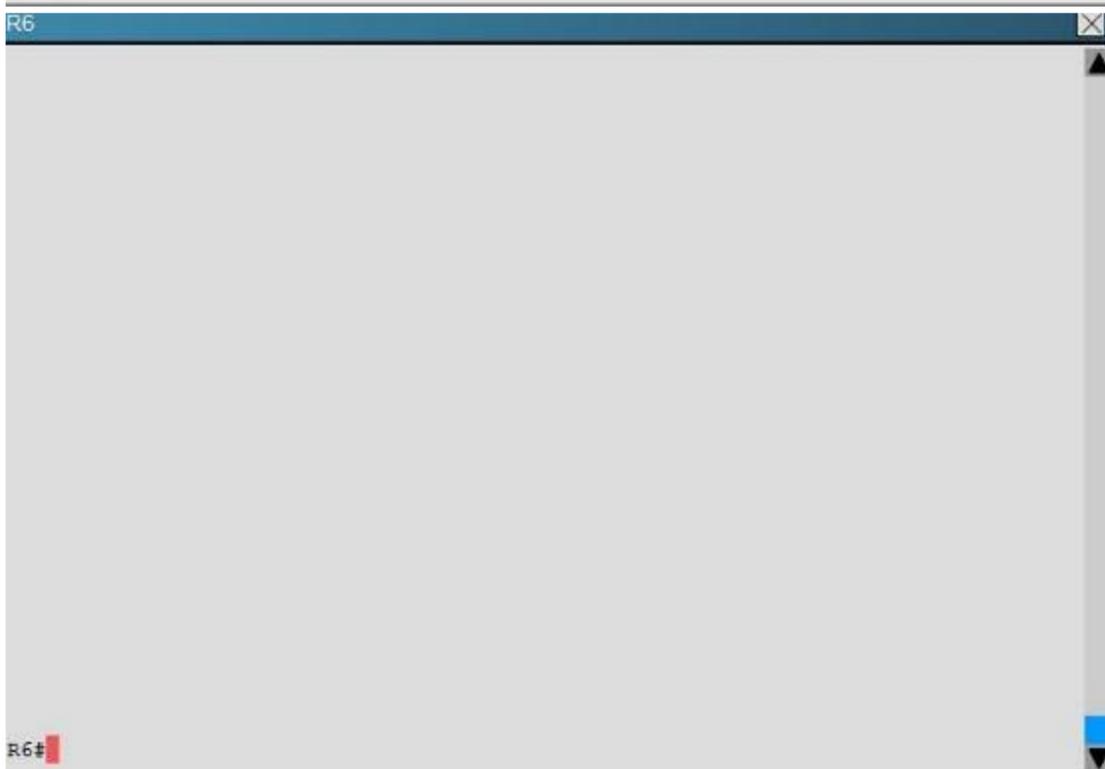
Refer to the topology. Your company has connected the routers R1, R2, and R3 with serial links. R2 and R3 are connected to the switches SW1 and SW2, respectively. SW1 and SW2 are also connected to the routers R4 and R5.

The EIGRP routing protocol is configured.

You are required to troubleshoot and resolve the EIGRP issues between the various routers. Use the appropriate show commands to troubleshoot the issues.



The image displays three vertically stacked, empty rectangular panels, each with a dark blue title bar and a light gray content area. The top panel is labeled 'R2' in the title bar and 'R2#' in the bottom-left corner. The middle panel is labeled 'R3' in the title bar and 'R3#' in the bottom-left corner. The bottom panel is labeled 'R4' in the title bar and 'R4#' in the bottom-left corner. Each panel has a vertical scroll bar on its right side, with a blue highlight at the bottom. The panels are separated by thin white lines.





Which path does traffic take from R1 to R5?

- A. The traffic goes through R2.
- B. The traffic goes through R3.
- C. The traffic is equally load-balanced over R2 and R3.
- D. The traffic is unequally load-balanced over R2 and R3.

**Answer:** A

**Explanation:** Using the “show ip int brief command” on R5 we can see the IP addresses assigned to this router. Then, using the “show ip route” command on R1 we can see that to reach 10.5.5.5 and 10.5.5.55 the preferred path is via Serial 1/3, which we see from the diagram is the link to R2.

```

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

Gateway of last resort is not set

 10.0.0.0/32 is subnetted, 5 subnets
C    10.1.1.1 is directly connected, Loopback0
D    10.2.2.2 [90/2297856] via 192.168.12.2, 00:37:12, Serial1/3
D    10.3.3.3 [90/2297856] via 192.168.13.3, 00:37:12, Serial1/1
D    10.5.5.5 [90/2323456] via 192.168.12.2, 00:37:12, Serial1/3
D    10.5.5.55 [90/2323456] via 192.168.12.2, 00:37:12, Serial1/3
O    192.168.12.0/24 is variably subnetted, 2 subnets, 2 masks
C    192.168.12.0/24 is directly connected, Serial1/3
L    192.168.12.1/32 is directly connected, Serial1/3
C    192.168.13.0/24 is variably subnetted, 2 subnets, 2 masks
C    192.168.13.0/24 is directly connected, Serial1/1
L    192.168.13.1/32 is directly connected, Serial1/1
O    192.168.16.0/24 is variably subnetted, 2 subnets, 2 masks

R1#

R5
!
!
no ip http server
no ip http secure-server
!
!
control-plane
!
R5#show ip int brief
Interface IP-Address OK? Method Status Prot
ocol
Ethernet0/0 192.168.123.5 YES NVRAM up up
Ethernet0/1 unassigned YES NVRAM administratively down down
Ethernet0/2 unassigned YES NVRAM administratively down down
Ethernet0/3 unassigned YES NVRAM administratively down down
Loopback0 10.5.5.5 YES NVRAM up up
Loopback1 10.5.5.55 YES NVRAM up up

R5#
    
```

**NEW QUESTION 738**

What SNMP message alerts the manager to a condition on the network?

- A. response
- B. get
- C. trap
- D. capture

**Answer:** C

**Explanation:** An agent can send unsolicited traps to the manager. Traps are messages alerting the SNMP manager to a condition on the network. Traps can mean improper user authentication, restarts, link status (up or down), MAC address tracking, closing of a TCP connection, loss of connection to a neighbor, or other significant events.

Reference:

[http://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst2950/software/release/12-1\\_9\\_ea1/configuration/guid](http://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst2950/software/release/12-1_9_ea1/configuration/guid)

**NEW QUESTION 741**

Which two statements are true for multicast MAC address directions?

- A. 01:00:5E:xx:xx:xx
- B. one to one
- C. 01 00 xx xxxxxxxx
- D. 02 xx xxxxxxxx

E. one to many

**Answer:** AE

**Explanation:**

The Internet authorities have reserved the multicast address range of 01:00:5E:00:00:00 to 01:00:5E:7F:FF:FF for Ethernet and Fiber Distributed Data Interface (FDDI) media access control (MAC) addresses.

**NEW QUESTION 744**

Which logging command can enable administrators to correlate syslog messages with millisecond precision?

- A. no logging console
- B. logging buffered 4
- C. no logging monitor
- D. service timestamps log datetime msec
- E. logging host 10.2.0.21

**Answer:** D

**NEW QUESTION 746**

Refer to the exhibit.

```
Switch1# show mac-address-table
Dynamic Addresses Count: 19
Secure Addresses (User-defined) Count: 0
Static Addresses (User-defined) Count: 0
System Self Addresses Count: 41
Total MAC addresses: 50
Non-static Address Table:
Destination Address  AddressType  VLAN  Destination Port
-----
0010.0de0.e289      Dynamic      1      FastEthernet0/1
0010.7b00.1540      Dynamic      2      FastEthernet0/5
0010.7b00.1545      Dynamic      2      FastEthernet0/5
0060.5cf4.0076      Dynamic      1      FastEthernet0/1
0060.5cf4.0077      Dynamic      3      FastEthernet0/1
0060.5cf4.1315      Dynamic      1      FastEthernet0/1
0060.70cb.f301      Dynamic      2      FastEthernet0/1
0060.70cb.3f01      Dynamic      5      FastEthernet0/2
00e0.1e42.9978      Dynamic      4      FastEthernet0/1
00e0.1e9f.3900      Dynamic      3      FastEthernet0/1
0060.70cb.33f1      Dynamic      6      FastEthernet0/3
0060.70cb.103f      Dynamic      6      FastEthernet0/4

<output omitted>

Switch1# show cdp neighbors
Capability Codes: R - Router, T - Trans Bridge, B - Source Route Bridge
                  S - Switch, H - Host, I - IGMP, r - Repeater

Device ID      Local Intrfce  Holdtime  Capability  Platform  Port ID
Switch2        Fas 0/1        157      S           2950-12   Fas 0/1
Switch3        Fas 0/2        143      S           2950-12   Fas 0/5

Switch1#
```

Which two statements are true of the interfaces on Switch1? (Choose two.)

- A. Multiple devices are connected directly to FastEthernet0/1.
- B. A hub is connected directly to FastEthernet0/5.
- C. FastEthernet0/1 is connected to a host with multiple network interface cards.
- D. FastEthernet0/5 has statically assigned MAC addresses.
- E. FastEthernet0/1 is configured as a trunk link.
- F. Interface FastEthernet0/2 has been disabled.

**Answer:** BE

**Explanation:** Carefully observe the information given after command show. Fa0/1 is connected to Switch2, seven MAC addresses correspond to Fa0/1, and these MAC are in different VLAN. From this we know that Fa0/1 is the trunk interface. From the information given by show cdp neighbors we find that there is no Fa0/5 in CDP neighbor. However, F0/5 corresponds to two MAC addresses in the same VLAN. Thus we know that Fa0/5 is connected to a Hub. Based on the output shown, there are multiple MAC addresses from different VLANs attached to the FastEthernet 0/1 interface. Only trunks are able to pass information from devices in multiple VLANs.

**NEW QUESTION 747**

Which two statements about EUI-64 addressing are true? (Choose two)

- A. A 64-bit interface identifier is derived from the interface MAC address
- B. A 96-bit interface identifier is derived from the interface MAC address.
- C. A locally administered address has the universal/local bit set to 0.
- D. The address includes the hex digits FFFE after the first 24 bits of the interface MAC address
- E. The address includes the hex digits FFFE after the last 24 bits of the interface MAC address

Answer: AD

**NEW QUESTION 749**

Based on the output below from SwitchB, Which Statement is True ?

```
SwitchB# show spanning-tree vlan 40

VLAN0040
Spanning tree enabled protocol rstp
Root ID          Priority      24596
                Address      0017.2935.6418
                Cost        38
                Port        11 (FastEthernet0/11)
                Hello Time   2 sec      Max Age 20 sec  Forward Delay 15 sec
Bridge ID        Priority      28692 (priority 28652 sys-id-ext 40)
                Address      0017.596d.1580
                Hello Time   2 sec      Max Age 20 sec  Forward Delay 15 sec
                Aging Time   300

Interface        Role  Sts  Cost      Prio.Nbr  Type
-----
Fa0/11           Root  FWD  19         128.11    P2p
Fa0/12           Altn  BLK  19         128.11    P2p
```

- A. VLAN 40 is running the per VLAN Spanning Tree Protocol
- B. The Fa0/11 role confirms that SwitchB is the root bridge for VLAN 40
- C. SwitchB is not the root bridge, because not all of the interface roles are designated
- D. The MAC Address of the root bridge is 0017:596d.1580

Answer: C

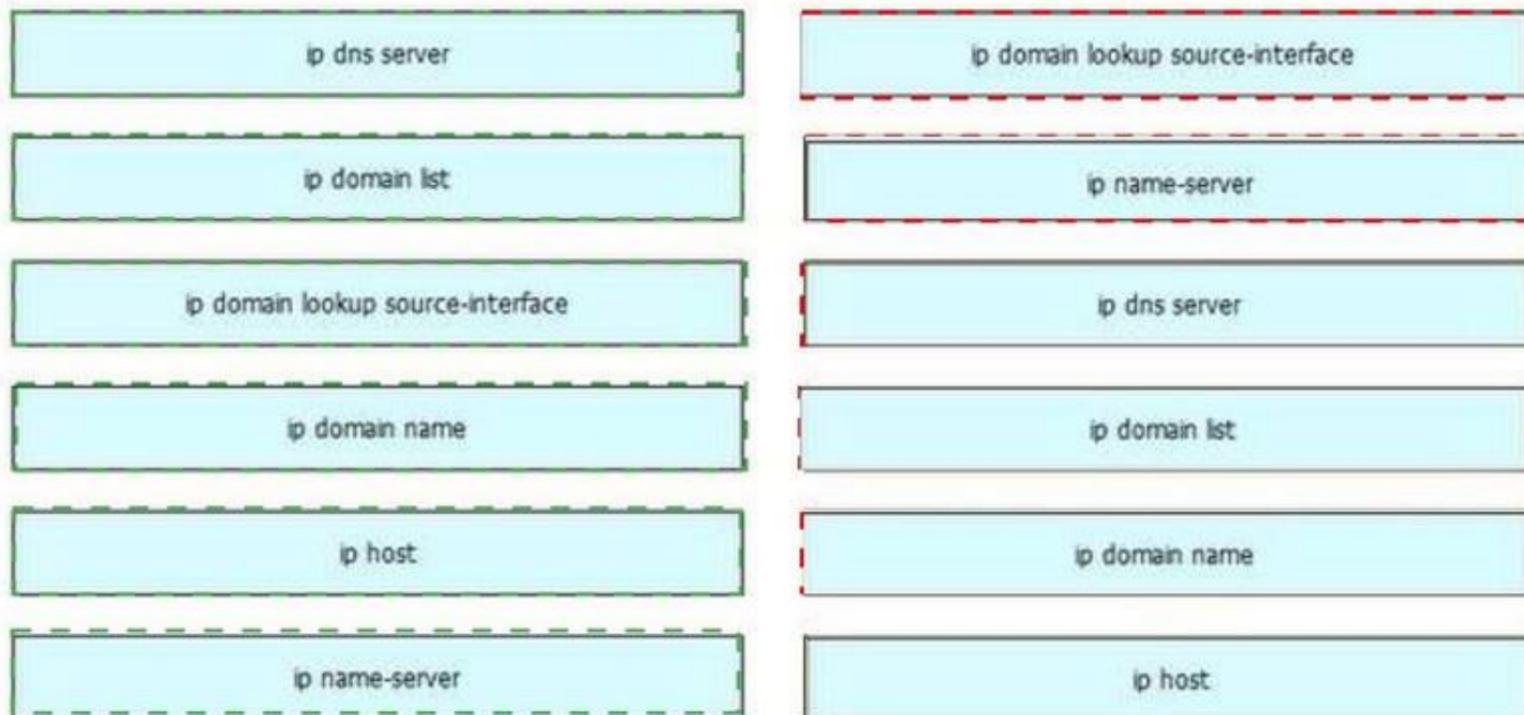
**NEW QUESTION 754**

Drag and drop the DNS lookup commands from the left onto the correct effects on the right

ip dns server	enables DNS lookup on an individual interface
ip domain list	enables the DNS server on the device
ip domain lookup source-interface	identifies a DNS server to provide lookup services
ip domain name	specifies a sequence of domain names
ip host	specifies the default domain to append to unqualified host names
ip name-server	statically maps an IP address to a hostname

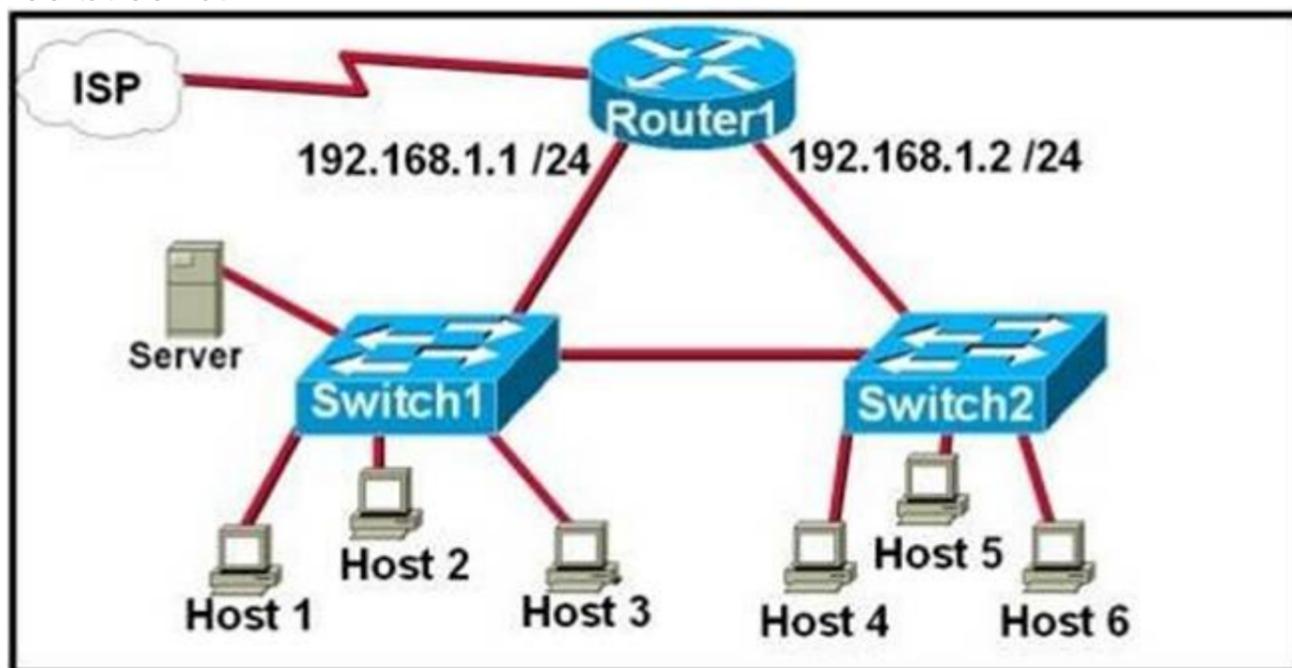
Answer:

Explanation:



**NEW QUESTION 759**

Refer to the exhibit.



A network technician is asked to design a small network with redundancy. The exhibit represents this design, with all hosts configured in the same VLAN. What conclusions can be made about this design?

- A. This design will function as intended.
- B. Spanning-tree will need to be used.
- C. The router will not accept the addressing scheme.
- D. The connection between switches should be a trunk.
- E. The router interfaces must be encapsulated with the 802.1Q protocol.

**Answer:** C

**Explanation:** Each interface on a router must be in a different network. If two interfaces are in the same network, the router will not accept it and show error when the administrator assigns it.

**NEW QUESTION 764**

**Instructions**

- Enter Cisco IOS commands on the device to verify network operation and answer for multiple-choice questions.
- **THIS TASK DOES NOT REQUIRE DEVICE CONFIGURATION.**
- Click the device icon to gain access to the console of the router. No console or enable passwords are required.
- To access the multiple-choice questions, click the numbered boxes on the left of the top panel.
- This task has **four** multiple-choice questions. Be sure to answer all four questions before clicking the Next button.

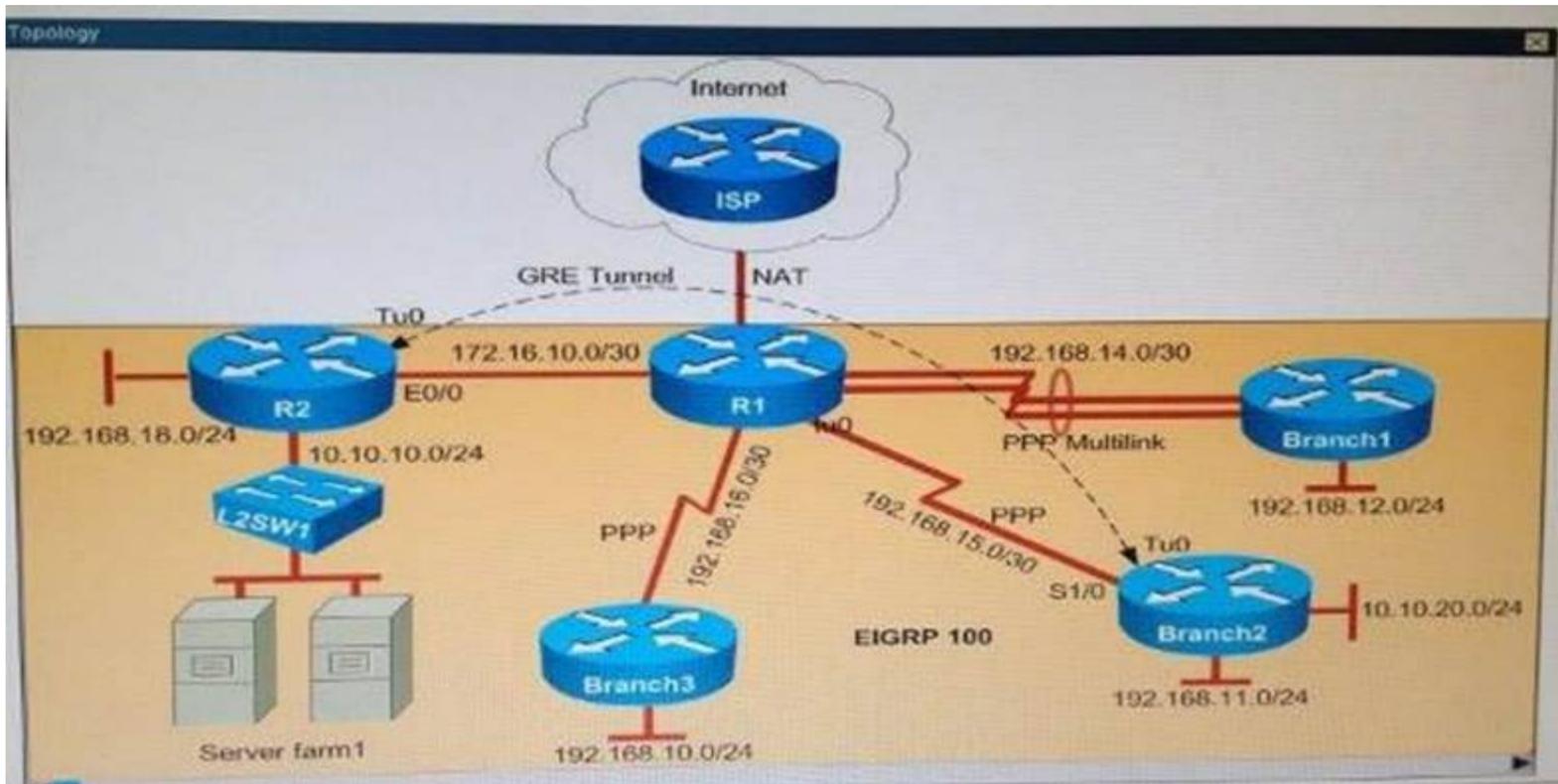
**Scenario**

You are implementing PPP over serial links between R1 router and branch offices. In Phase 1 you must implement and verify PPP and GRE tunnel configurations as mentioned in the topology. In Phase 2 your colleague is expected to do NAT and ISP configurations between R1 and ISP router.

Identify the issues that you encounter during PPP over serial links implementation.

Routers Branch1, Branch2, and Branch3 connect to Router R1 in the main office over serial links. PPP multilink implementation is recommended between R1 and Branch1 routers. The GRE tunnel is configured between R2 and Branch2 routers, and traffic between Server farm1 10.10.10.0/24 network and Branch2 LAN 10.10.20.0/24 network is routed over GRE tunnel (using static route).

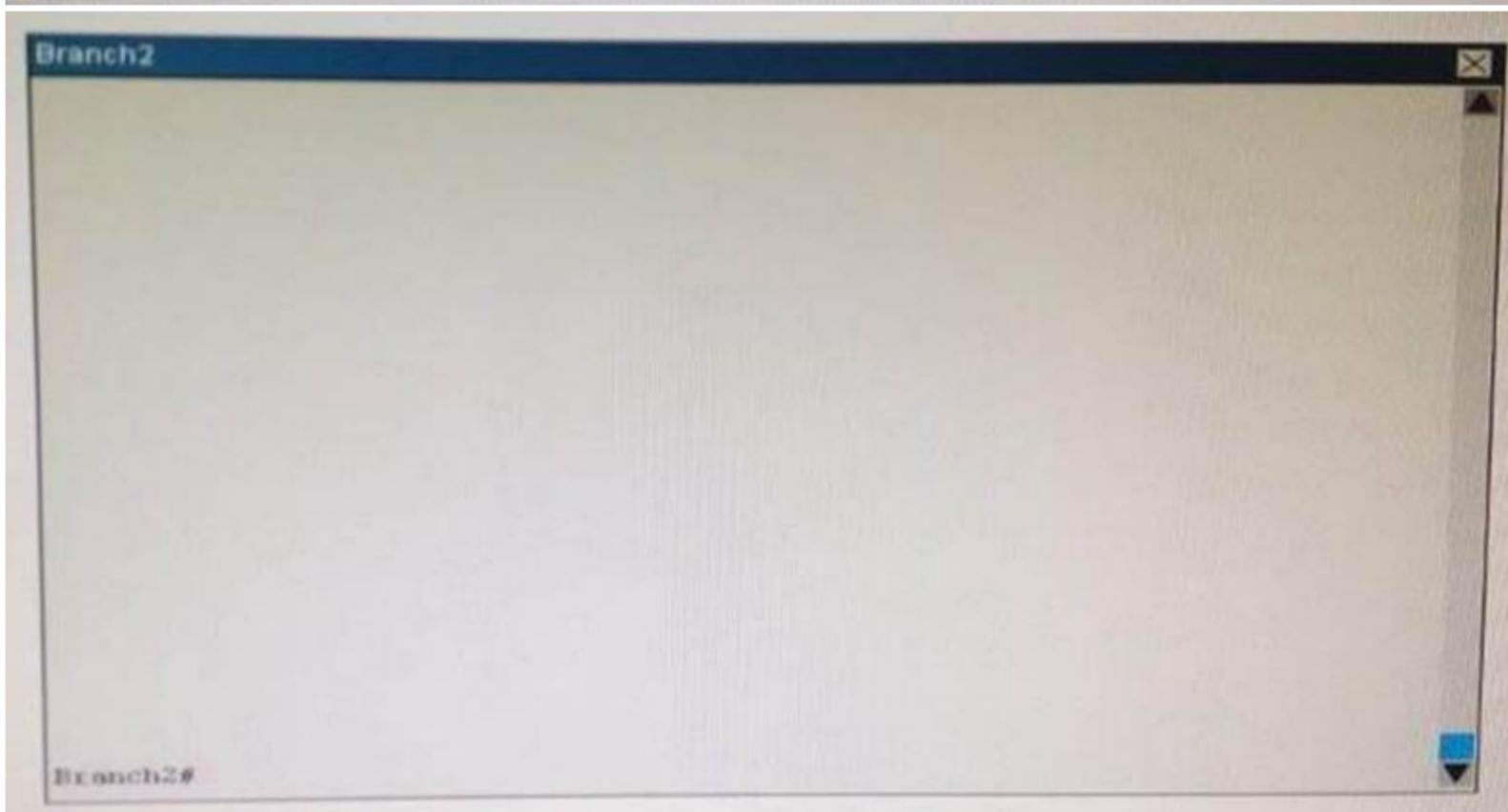
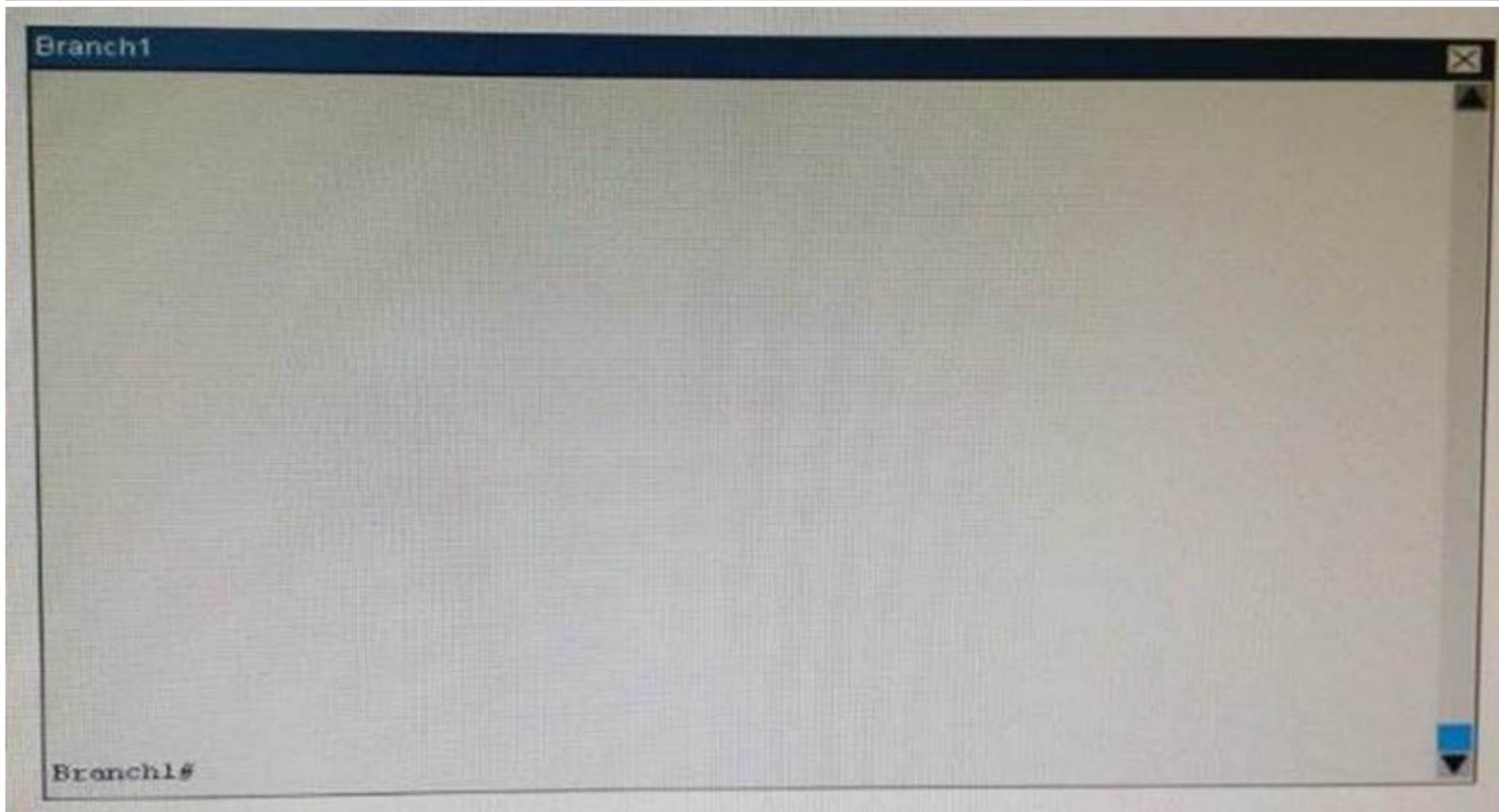
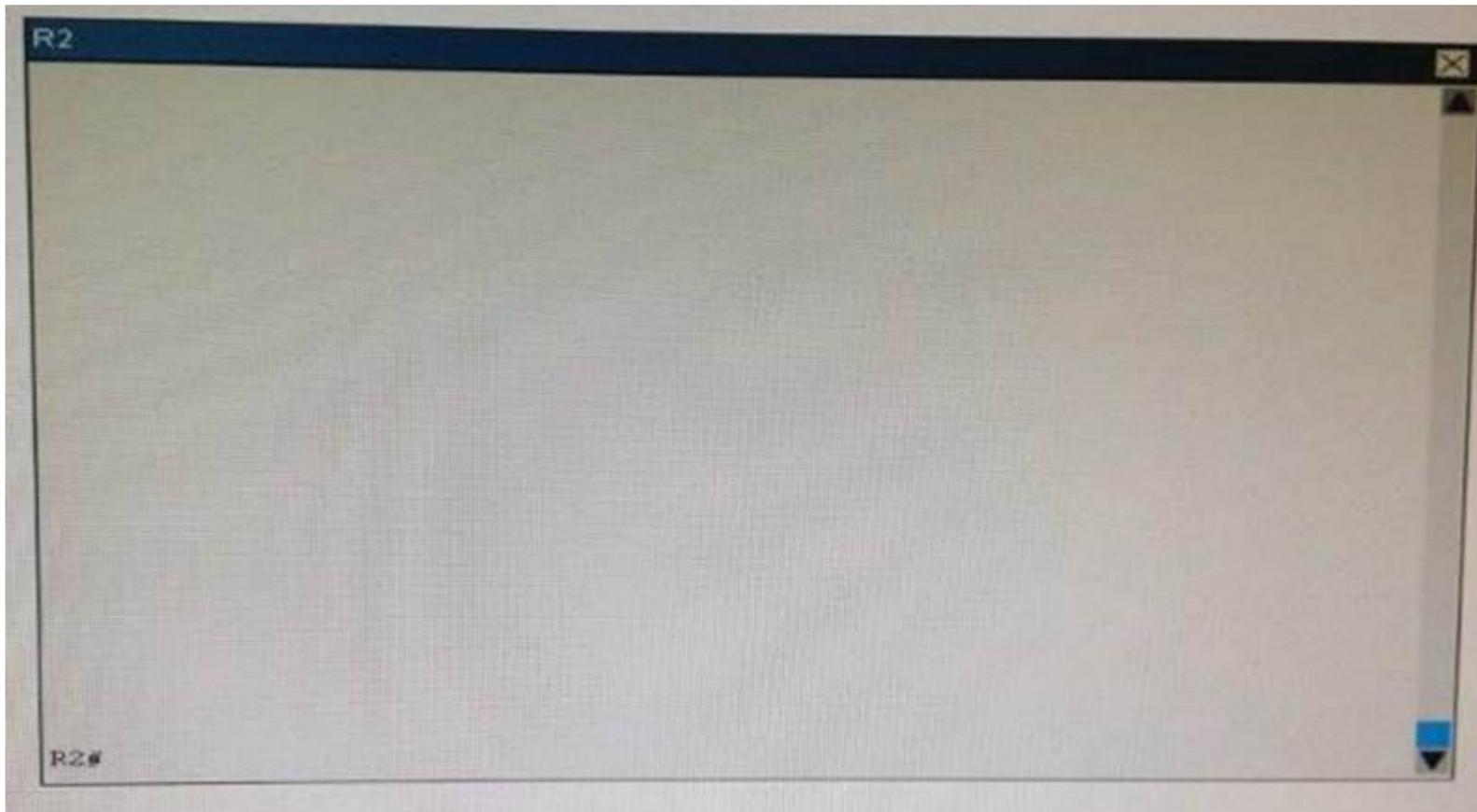
You have console access on R1, R2, Branch1, Branch2, and Branch3 devices. Use only show commands to troubleshoot the issues.

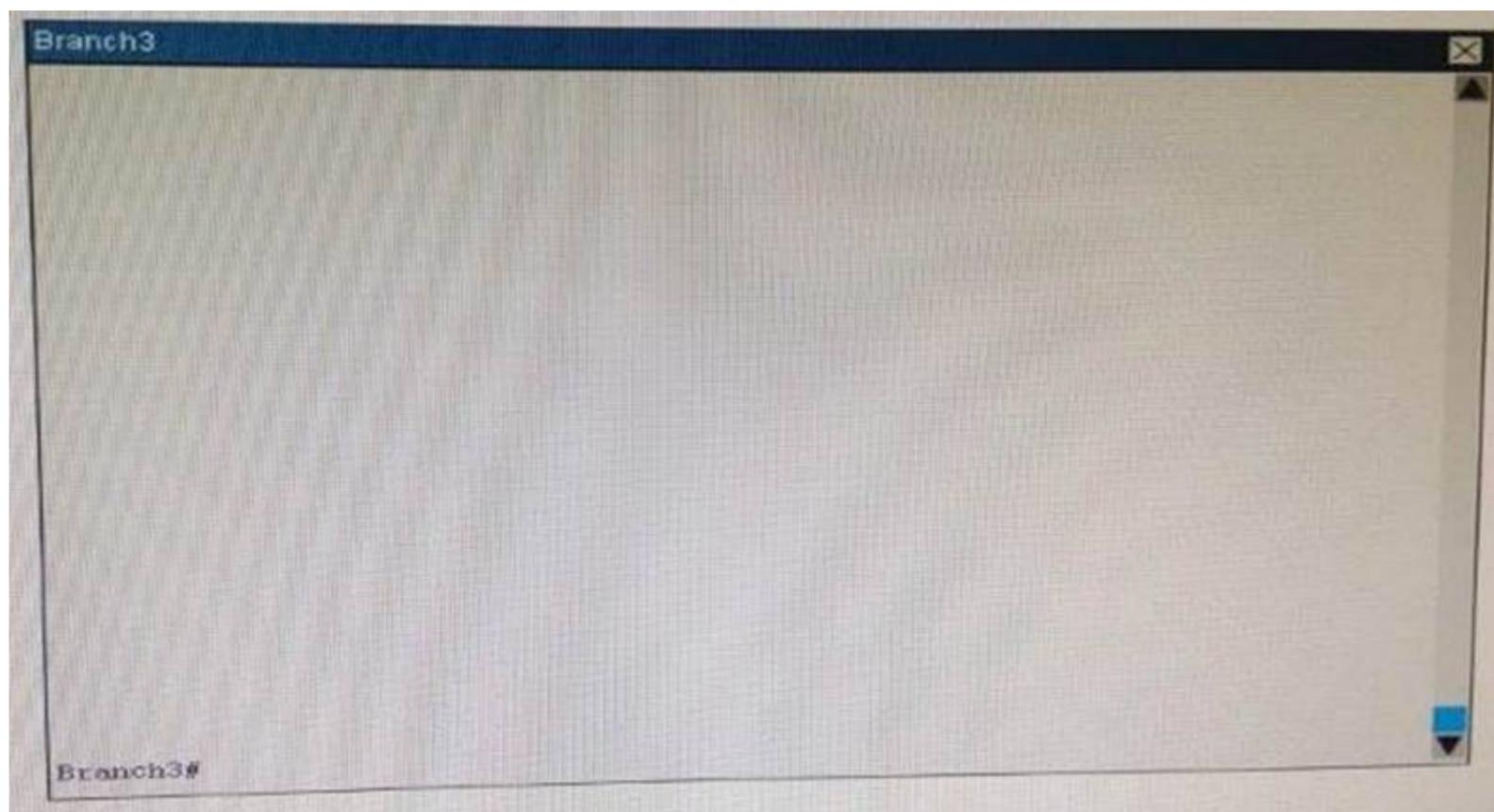


**R1**

```

R1#
    
```





Why is the Branch2 network 10.1 0.20.0/24 unable to communicate with the Server farm1 network 10.1 0.10.0/24 over the GRE tunnel?

- A. The GRE tunnel destination is not configured on the R2 router.
- B. The GRE tunnel destination is not configured on the Branch2 router.
- C. The static route points to the tunnel0 interface that is misconfigured on the Branch2 router.
- D. The static route points to the tunnel0 interface that is misconfigured on the R2 router.

**Answer: C**

**Explanation:** The Branch2 network is communicating to the Server farm, which is connected to R2, via GRE Tunnel so we should check the GRE tunnel first to see if it is in "up/up" state with the "show ip interface brief" command on the two routers.

On Branch2:

```
Branch2#show ip interface brief
```

Interface	IP-Address	OK?	Method	Status	Protocol
Ethernet0/0	10.10.20.1	YES	manual	up	up
Ethernet0/1	192.168.11.1	YES	manual	up	up
Ethernet0/2	unassigned	YES	unset	administratively down	down
Ethernet0/3	unassigned	YES	unset	administratively down	down
Serial1/0	192.168.15.2	YES	manual	up	up
Serial1/1	unassigned	YES	unset	administratively down	down
Serial1/2	unassigned	YES	unset	administratively down	down
Serial1/3	unassigned	YES	unset	administratively down	down
Tunnel0	192.168.24.2	YES	manual	up	up

On R2:

```
R2#show ip interface brief
```

Interface	IP-Address	OK?	Method	Status	Protocol
Ethernet0/0	172.16.10.2	YES	manual	up	up
Ethernet0/1	10.10.10.1	YES	manual	up	up
Ethernet0/2	192.168.18.1	YES	manual	up	up
Ethernet0/3	unassigned	YES	unset	administratively down	down
Tunnel0	192.168.24.1	YES	manual	up	up

We see interfaces Tunnel0 at two ends are "up/up" which are good so we should check for the routing part on two routers with the "show running-config" command and pay attention to the static routing of each router. On Branch2 we see:

```
Branch2#show running-config
```

```
<output omitted>
```

```
ip route 10.10.10.0 255.255.255.0 192.168.24.10
```

R2\_show\_run\_static.jpg

The destination IP address for this static route is not correct. It should be 192.168.24.1 (Tunnel0's IP address of R2), not 192.168.24.10 -> Answer C is correct.

Note: You can use the "show ip route" command to check the routing configuration on each router but if the destination is not reachable (for example: we configure "ip route 10.10.10.0 255.255.255.0 192.168.24.10" on Branch2, but if 192.168.24.10 is unknown then Branch2 router will not display this routing entry in its routing table.

**NEW QUESTION 769**

Which three statements about IPv6 prefixes are true? (Choose three.)

- A. FF00::/8 is used for IPv6 multicast.
- B. FE80::/10 is used for link-local unicast.
- C. FC00::/7 is used in private networks.
- D. 2001::1/127 is used for loopback addresses.
- E. FE80::/8 is used for link-local unicast.
- F. FEC0::/10 is used for IPv6 broadcast.

**Answer:** ABC

**NEW QUESTION 770**

Drag and drop the BGP terms from the left onto the correct descriptions on the right

autonomous system	block of IP addresses
external BGP	relationship between peers in different autonomous system
internal BGP	relationship between peers in the same autonomous system
prefix	separate network operating within one administrative domain
private AS range	value between 1 and 64,511
public AS range	value between 64,512 and 65,535

**Answer:**

**Explanation:** external BGP = peers are in different autonomous systems (AS) internal BGP = peers are in the same autonomous systems  
Autonomous System = separate network operating within one administrative domain Private autonomous system (AS)= numbers which range from 64512 to 65535 Public AS = between 1 and 64511  
Prefix = block of ip addresses

**NEW QUESTION 773**

What is the simplest IP SLA operation that can measure end-to-end response time between devices?

- A. ICMP path jitter
- B. ICMP path echo
- C. ICMP echo
- D. ICMP Jitter

**Answer:** D

**NEW QUESTION 778**

You apply a new inbound access list to routers, blocking UDP packets to the HSRP group. Which two effects does this action have on HSRP group process? (Choose two )

- A. HSRP redundancy works as expected.
- B. HSRP redundancy fails
- C. The active router immediately becomes the standby router
- D. Both the active and standby routers become active
- E. The routers in the group generate duplicate IP address warnings

**Answer:** BD

**NEW QUESTION 783**

What is one benefit of PVST+?

- A. PVST + reduces the CPU cycles for all the switches in the network.
- B. PVST + automatically selects the root bridge location, to provide optimized bandwidth usage.
- C. PVST + supports Layer 3 load balancing without loops.
- D. PVST + allows the root switch location to be optimized per VLAN.

Answer: D

**NEW QUESTION 784**

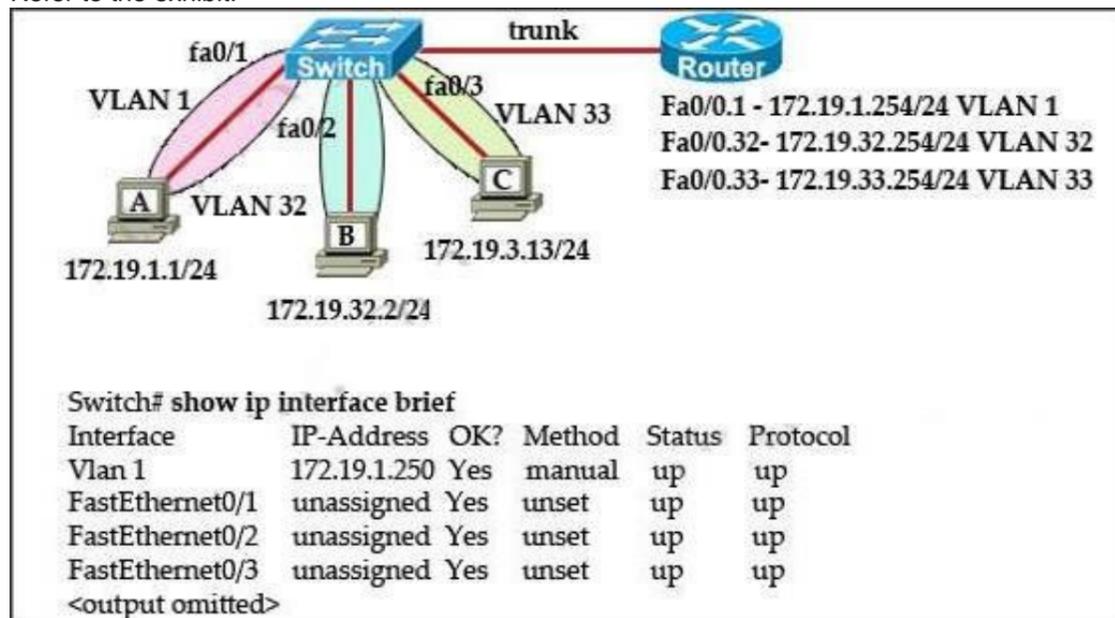
Which command can you enter to display duplicate IP addresses that the DHCP server assigns?

- A. show ip dhcp database 10.0.2.12
- B. show ip dhcp server statistics
- C. show ip dhcp conflict 10.0.2.12
- D. show ip dhcp binding 10.0.2.12

Answer: D

**NEW QUESTION 785**

Refer to the exhibit.



The network administrator normally establishes a Telnet session with the switch from host A. However, host A is unavailable. The administrator's attempt to telnet to the switch from host B fails, but pings to the other two hosts are successful. What is the issue?

- A. Host B and the switch need to be in the same subnet.
- B. The switch interface connected to the router is down.
- C. Host B needs to be assigned an IP address in VLAN 1.
- D. The switch needs an appropriate default gateway assigned.
- E. The switch interfaces need the appropriate IP addresses assigned.

Answer: D

**Explanation:** Ping was successful from host B to other hosts because of inter-vlan routing configured on router. But to manage switch via telnet the VLAN32 on the switch needs to be configured interface vlan32 along with ip address and its appropriate default-gateway address. Since VLAN1 interface is already configured on switch Host A was able to telnet switch.

**NEW QUESTION 788**

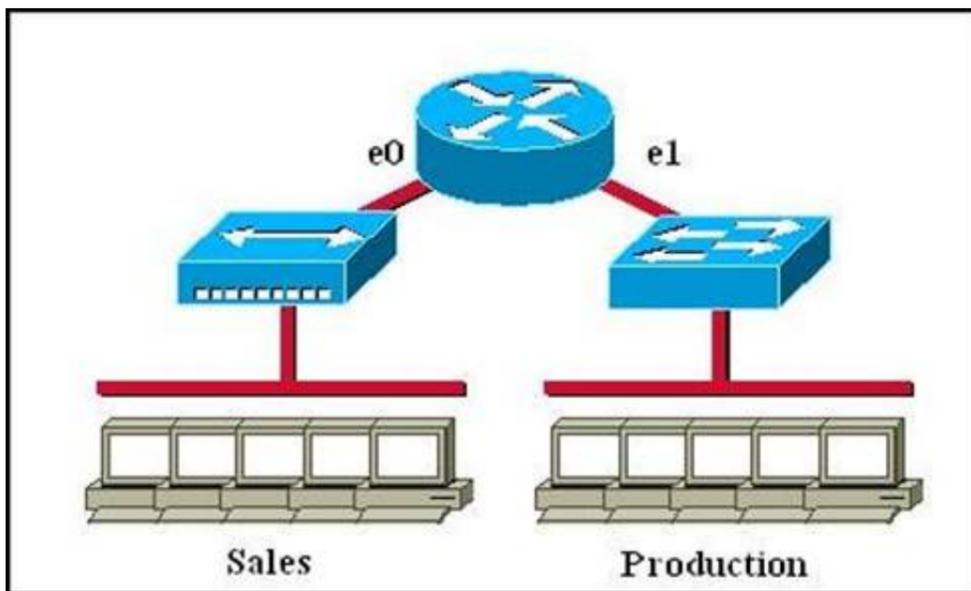
What happens when you add a switch running an earlier IOS version to a StackWise configuration running a later version?

- A. The switch software upgrades the IOS version on the switch to match the version on the stack
- B. The switch keeps its version of IOS and runs normally as part of the stack
- C. The switch software downgrades the IOS version on the stack to match the version on the switch
- D. The stack ignores the switch until you update the IOS version on the switch

Answer: A

**NEW QUESTION 789**

Refer to the exhibit.



Which two statements describe the network shown in the graphic? (Choose two)

- A. There are two broadcast domains in the network.
- B. There are four broadcast domains in the network.
- C. There are seven collision domains in the network.
- D. There are six broadcast domains in the network.
- E. There are five collision domains in the network.
- F. There are four collision domains in the network.

**Answer:** AC

**NEW QUESTION 791**

How does a Cisco IP phone handle untagged traffic that it receives from an attached PC?

- A. It drops the traffic.
- B. It allows the traffic to pass through unchanged.
- C. It tags the traffic with the default VLAN
- D. It tags the traffic with the native VLAN.

**Answer:** B

**Explanation:** Untagged data traffic from the device attached to the Cisco IP phone passes through the Cisco IP phone unchanged, regardless of the trust state of the access port on the Cisco IP phone.

[https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst6500/ios/12-2SY/configuration/guide/sy\\_swcg/voip](https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst6500/ios/12-2SY/configuration/guide/sy_swcg/voip).

**NEW QUESTION 795**

Which task do you need to perform first when you configure IP SLA to troubleshoot a network connectivity issue?

- A. Verify the ICMP echo operation
- B. Specify the test frequency
- C. Enable the ICMP echo operation.
- D. Schedule the ICMP echo operation.

**Answer:** C

**NEW QUESTION 796**

Which chassis-aggregation technology combines two physical switches into one virtual switch?

- A. LACP
- B. VRRP
- C. VSS
- D. StackWise

**Answer:** C

**NEW QUESTION 800**

During which phase of PPPoE is PPP authentication performed?

- A. the PPP Session phase
- B. Phase 2
- C. the Active Discovery phase
- D. the Authentication phase
- E. Phase 1

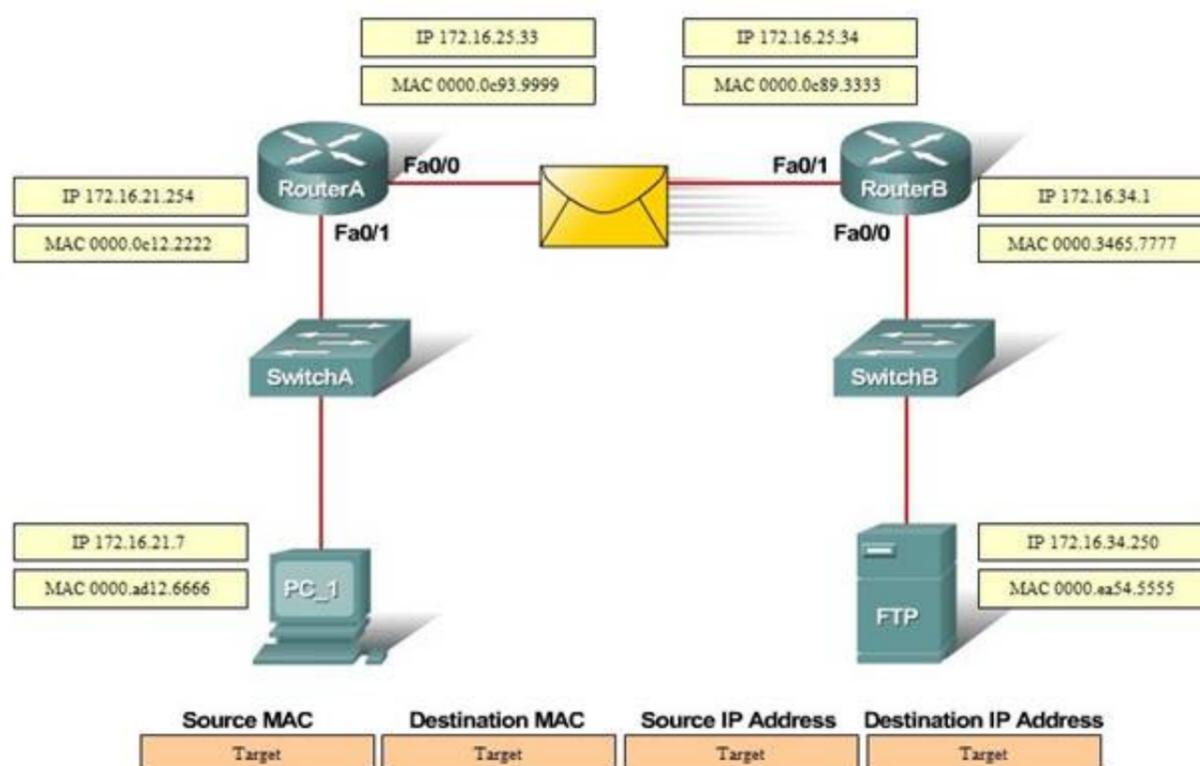
**Answer:** A

**NEW QUESTION 805**

Refer to the exhibit. PC\_1 is exchanging packets with the FTP server. Consider the packets as they leave RouterB interface Fa0/1 towards RouterA. Drag the

correct frame and packet addresses to their place in the table.

Refer to the exhibit. PC\_1 is exchanging packets with the FTP server. Consider the packets as they leave RouterB interface Fa0/1 towards RouterA. Drag the correct frame and packet addresses to their place in the table.



**Answer:**

**Explanation:** Source Mac Address Destination Mac Address Source IP address Destination MAC address MAC 0000.0c89.3333 MAC 0000.0c89.9999 IP 172.16.34.250 IP 172.16.21.7

**NEW QUESTION 806**

Which two statements about static routing are true? (Choose two )

- A. It provides only limited security unless the administrator performs additional configuration
- B. Its default administrative distance is lower than EIGRP.
- C. It allows packets to transit a different path if the topology changes
- D. It allows the administrator to determine the entire path of a packet
- E. Its initial implementation is more complex than OSPF.

**Answer:** BD

**NEW QUESTION 807**

Which component of the Cisco SDN solution serves as the centralized management system?

- A. Cisco OpenDaylight
- B. Cisco ACI
- C. Cisco APIC
- D. Cisco IWAN

**Answer:** C

**NEW QUESTION 809**

Which two of these statements regarding mode allows traffic? (Choose two)

- A. 802.1Q trunks require full-duplex, point-to-point connectivity.
- B. 802.1Q trunking ports can also be secure ports.
- C. 802.1Q native VLAN frames are always untagged and cannot be tagged.
- D. 802.1Q trunks should have native VLANs that are the same at both ends.
- E. 802.1Q native VLAN frames are untagged by default.

**Answer:** DE

**NEW QUESTION 814**

Which technology provides chassis redundancy in a VSS environment?

- A. OBFD
- B. Stack Wise
- C. VRRP
- D. multichassis EtherChannels

**Answer:** D

**NEW QUESTION 816**

Which feature or method can you use to isolate physical layer problems on a serial link?

- A. autonegotiation
- B. UDLD
- C. protocol analyzer
- D. loopback tests

**Answer:** A

**NEW QUESTION 821**

For what two purposes does the Ethernet protocol use physical addresses? (Choose two)

- A. to establish a priority system to determine which device gets to transmit first
- B. to allow communication between different devices on the same network
- C. to allow communication with devices on a different network
- D. to uniquely identify devices at Layer 2
- E. to allow detection of a remote device when its physical address is unknown
- F. to differentiate a Layer 2 frame from a Layer 3 packet

**Answer:** BD

**NEW QUESTION 825**

Which two values can identify a switch stack on the network? (Choose two )

- A. the bridge ID
- B. the spanning tree priority
- C. the switch BIA
- D. the switch priority
- E. the management IP address of the device

**Answer:** AD

**NEW QUESTION 828**

Which command should you enter on an interface in a vendor-neutral EtherChannel so that it will be selected first to transmit packets?

- A. lacp system-priority 1024
- B. pagp port-priority 1024
- C. lacp port-priority 1024
- D. pagp system-priority 1024

**Answer:** A

**NEW QUESTION 832**

A switch is configured with all ports assigned to VLAN 2 with full duplex FastEthernet to segment existing departmental traffic. What is the effect of adding switch ports to a new VLAN on the switch?

- A. More collision domains will be created.
- B. IP address utilization will be more efficient.
- C. More bandwidth will be required than was needed previously.
- D. An additional broadcast domain will be created.

**Answer:** D

**Explanation:** Each VLAN creates its own broadcast domain. Since this is a full duplex switch, each port is a separate collision domain.

**NEW QUESTION 834**

Which two descriptions of TACACS+ are true? (Choose two)

- A. It can authorize specific router commands.
- B. It encrypts only the password.
- C. It separates authentication, authorization, and accounting functions
- D. It combines authentication and authorization.
- E. It uses UDP as its transport protocol

**Answer:** AC

**Explanation:** <https://www.cisco.com/c/en/us/support/docs/security-vpn/remote-authentication-dial-user-service-radius/13838->

**NEW QUESTION 837**

Which two commands should you enter to prevent a Cisco device from sharing information with upstream devices? (Choose two)

- A. R1(config)#no cdp enable

- B. R1(config-if)#no cdp run
- C. R1(config-if)#no cdp enable
- D. R1(config)#no cdp run
- E. R1(config)#no cdp advertise-v2

**Answer:** AE

**NEW QUESTION 840**

Which IP address can send traffic to all hosts on network 10.101.0.0/16?

- A. 10.101.0.1
- B. 10.101.254.254
- C. 10.101.254.255
- D. 224.0.0.1

**Answer:** A

**NEW QUESTION 842**

Which two operational modes are supported on the members of a StackWise switch stack? (Choose two)

- A. power-sharing
- B. passive
- C. redundant
- D. standby
- E. active

**Answer:** BE

**NEW QUESTION 846**

Which command is needed to send RIPv2 updates as broadcast when configured for RIPv2?

- A. ip rip v2-broadcast
- B. ip rip receive version 1
- C. ip rip receive version 2
- D. version 2

**Answer:** A

**NEW QUESTION 847**

Which command should you enter to configure a DHCP client?

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

**Answer:** A

**NEW QUESTION 849**

Which two pieces of information about a Cisco device can Cisco Discovery Protocol communicate? (Choose two.)

- A. the native VLAN
- B. the VTP domain
- C. the spanning tree protocol
- D. the spanning-tree priority
- E. the trunking protocol

**Answer:** BE

**NEW QUESTION 853**

Which two tasks should you perform to begin troubleshooting a network problem? (Choose two)

- A. Gather all the facts.
- B. Monitor and verify the resolution
- C. Define the problem as a set of symptoms and causes
- D. Analyze the results.
- E. Implement an action plan

**Answer:** AE

**NEW QUESTION 854**

Which IPv6 address is the all-router multicast group?

- A. FF02::1

- B. FF02::2
- C. FF02::3
- D. FF02::4

**Answer:** B

**Explanation:** Well-known IPv6 multicast addresses:

- Address Description ff02::1  
All nodes on the local network segment
- ff02::2  
All routers on the local network segment

**NEW QUESTION 857**

Which two benefits of implementing a full-mesh WAN topology are true? (Choose two)

- A. increased latency
- B. redundancy
- C. reduced jitter
- D. improved scalability
- E. reliability

**Answer:** BE

**NEW QUESTION 860**

Which type of access list compares source and destination IP addresses?

- A. extended
- B. standard
- C. IP named
- D. reflexive

**Answer:** A

**Explanation:** Extended ACLs compare the source and destination addresses of the IP packets to the addresses configured in the ACL in order to control traffic. You can also make extended ACLs more granular and configured to filter traffic by criteria such as: Protocol Port numbers Differentiated services code point (DSCP) value Precedence value State of the synchronize sequence number (SYN) bit

**NEW QUESTION 861**

Refer to the exhibit.

```
00:00:39: %LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to down
00:00:40: %SPANTREE-5-EXTENDED_SYSID: Extended Sysid enabled for type vlan
00:00:42: %SYS-5-CONFIG_I: Configured from memory by console
00:00:42: %SYS-5-RESTART: System restarted --
Cisco IOS Software, C2960 Software (C2960-LANBASEK9-M), Version 12.2(25)SEE2, RELEASE SOFTWARE (fc1)
Copyright (c) 1986-2006 by Cisco Systems, Inc.
Compiled Fri 28-Jul-06 11:57 by yenanrh
00:00:44: %LINK-5-CHANGED: Interface Vlan1, changed state to administratively down
00:00:44: %LINK-3-UPDOWN: Interface FastEthernet0/1, changed state to up
00:00:44: %LINK-3-UPDOWN: Interface FastEthernet0/2, changed state to up
00:00:44: %LINK-3-UPDOWN: Interface FastEthernet0/11, changed state to up
00:00:45: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
00:00:45: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2, changed state to up
00:00:45: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/11, changed state to up
00:00:48: %LINK-3-UPDOWN: Interface FastEthernet0/12, changed state to up
00:00:49: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/12, changed state to up
```

Which of these statements correctly describes the state of the switch once the boot process has been completed?

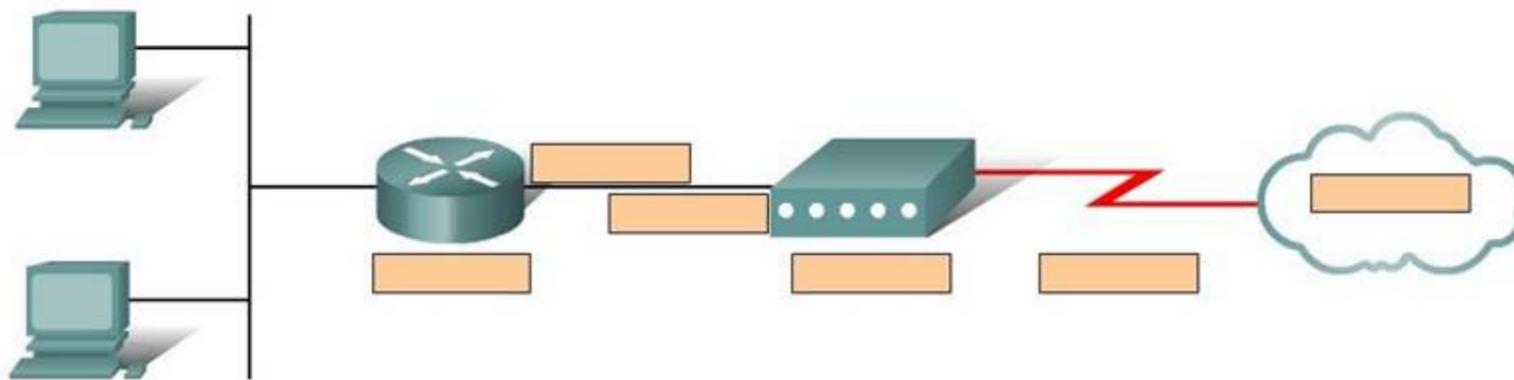
- A. More VLANs will need to be created for this switch.
- B. As FastEthernet0/12 will be the last to come up, it will be blocked by STP.
- C. The switch will need a different IOS code in order to support VLANs and STP.
- D. Remote access management of this switch will not be possible without configuration change.

**Answer:** D

**NEW QUESTION 863**

Refer to the exhibit. Complete this network diagram by dragging the correct device name or description to the correct location. Not all the names or descriptions will be used.

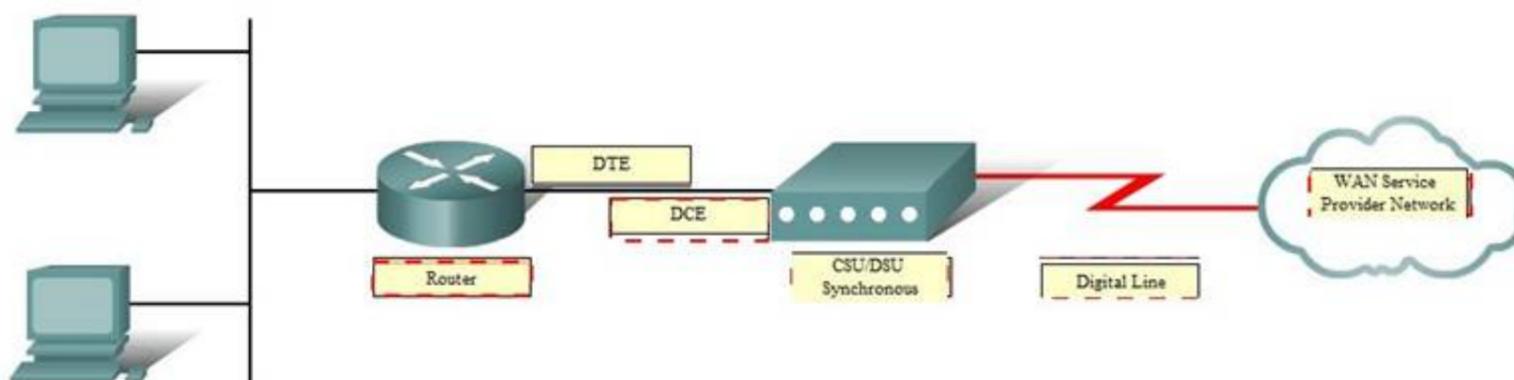
Refer to the exhibit. Complete this network diagram by dragging the correct device name or description to the correct location. Not all the names or descriptions will be used.



- Digital Line
- CSU/DSU Synchronous
- Analog Modem Asynchronous
- WAN Service Provider Network
- Router
- Switch
- DTE
- DCE

**Answer:**

**Explanation:** Refer to the exhibit. Complete this network diagram by dragging the correct device name or description to the correct location. Not all the names or descriptions will be used.



- Digital Line
- CSU/DSU Synchronous
- Analog Modem Asynchronous
- WAN Service Provider Network
- Router
- Switch
- DTE
- DCE

Topic 5, New Pool E (Latest)

**NEW QUESTION 868**

Which three commands can you use to set a router boot image? (Choose three.)

- A. Router(config)#boot system flash c4500-p-mz .121-20.bin
- B. Router(config)#boot flash:c180x adventerprise9-mz-124-6T.bin
- C. Router>noot flash:c180-adventerprise9-mz-124-6t.bin
- D. Router(confi)#boot bootldr bootflash:c4500-jk9s-mz.122-23f.bin
- E. Router(config)#boot system tftp c7300-js-mz.122-33.SB8a.bin
- F. Router(Configure)#boot system rom c7301-advservicek9-mz.124-24.T4.bin

**Answer:** AF

**NEW QUESTION 869**

What are two advantages of static routing? (Choose two)

- A. It cannot be used to load-balance traffic over multiple links
- B. It allows the network to respond immediately to changes
- C. It can be implemented easily even in large environments.
- D. It allows the administrator to control the path of traffic
- E. It produces minimal CPU load.

**Answer:** CD

**NEW QUESTION 874**

Which two differences between distance -vector and link-state routing protocols are true?

- A. Only distance-vector routing protocol send full routing table updates.
- B. Only distance-vector routing protocol offer faster convergence than distance-vector protocol during network changes.
- C. Distance-vector routing protocols are less susceptible to loops than link-state protocols.
- D. Only link-state routing protocols use can the Bellman-Ford algorithm.

**Answer: C**

**NEW QUESTION 876**

. Which two Layer 2 WAN transports are most appropriate to extend Ethernet over a WAN? (Choose two)

- A. 802.1Q VLAN tagging
- B. DMVPN
- C. 4GLTE with VPN
- D. Point-to-multipoint service
- E. Point-to-point service

**Answer: DE**

**NEW QUESTION 880**

Which two services can be provided by a wireless controller?

- A. mitigating threats from the Internet
- B. issuing IP addresses to wired devices
- C. Layer 3 routing between wired and wireless devices
- D. Providing authentication services to users
- E. managing interface in a dense network

**Answer: BD**

**NEW QUESTION 883**

On which combinations are standard access lists based?

- A. destination address and subnet mask
- B. destination address and wildcard mask
- C. source address and subnet mask
- D. source address and wildcard mask

**Answer: D**

**NEW QUESTION 884**

Which two statements about chassis aggregation with mLACP are true? (Choose two)

- A. It supports full-duplex links only
- B. It supports FastEthernet interfaces
- C. MTP traffic flows on all members of port channel
- D. It supports single neighbors only
- E. It supports multiple neighbors

**Answer: AD**

**NEW QUESTION 888**

Which condition that service password-encryption is enabled?

- A. the enable secret is in clear text in the configuration.
- B. The enable secret is encrypted in the configuration.
- C. The local username password is in clear text in the configuration.
- D. The local username password is encrypted in the configuration.

**Answer: D**

**NEW QUESTION 890**

Between which two states does a port transition when PortFast is enabled? (Choose two)

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

**Answer: AB**

**NEW QUESTION 895**

Which two neighbor types are supported in a BGP environment? (Choose two)

- A. remote
- B. directly attached
- C. external
- D. autonomous
- E. internal

**Answer:** CE

**NEW QUESTION 900**

Drag and drop the extended traceroute options from the left onto the correct descriptions on the right.

Maximum time to live	value that, when reached, terminates the traceroute command
Minimum time to live	IP header options
numeric display	overrides the router selection of an outbound interface
Source address	sets the interval for which the probe waits for a response
Timeout	suppresses the display of known hops
Timestamp, verbose	suppresses the display of hostnames

**Answer:**

**Explanation:**

Maximum time to live	Maximum time to live
Minimum time to live	Timestamp, verbose
numeric display	Source address
Source address	Timeout
Timeout	Minimum time to live
Timestamp, verbose	numeric display

**NEW QUESTION 904**

Which three options are types of Layer 2 network attacks? (Choose three.)

- A. botnet attacks
- B. spoofing attacks
- C. brute force attacks
- D. DDOS attacks
- E. VLAN hooping
- F. ARP attacks

Answer: BEF

**NEW QUESTION 908**

Refer to the Exhibit.

```

R1# show ip route
C    192.168.10.0/24 is directly connected, Vlan10
O    192.168.11.0/24 [110/2] via 172.20.3.2, 1w1d, GigabitEthernet0/1
S    192.168.12.0/24 [1/0] via 172.20.4.5
R    172.20.10.21 [120/2] via 192.168.250.35, 7w0d
B    172.20.20.21 [20/0] via 192.168.220.40, 7w9d
O    172.20.30.21 [110/2] via 192.168.200.45, 2d19h
    
```

Which two routes are using a link state protocol? (Choose two)

- A. 172.20.30.21
- B. 192.168.11.0/24
- C. 172.20.20.21
- D. 172.20.10.21
- E. 192.168.10.0/24

Answer: BC

**NEW QUESTION 910**

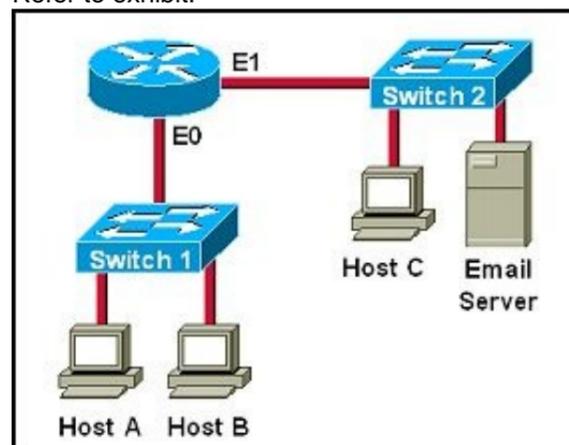
Which two server types are used to support DNS lookup? (Choose two.)

- A. web server
- B. ESX host
- C. authoritative name server
- D. file transfer server
- E. name resolver

Answer: AC

**NEW QUESTION 913**

Refer to exhibit:



Which two destination addresses will be used by Host A to send data to Host C? (Choose two.)

- A. the IP address of Switch 1
- B. the MAC address of Switch 1
- C. the IP address of Host C
- D. the MAC address of Host C
- E. the IP address of the router's E0 interface
- F. the MAC address of the router's E0 interface

Answer: CF

**Explanation:** While transferring data through many different networks, the source and destination IP addresses are not changed. Only the source and destination MAC addresses are changed. So in this case Host A will use the IP address of Host C and the MAC address of E0 interface to send data. When the router receives this data, it replaces the source MAC address with its own E1 interface's MAC address and replaces the destination MAC address with Host C's MAC address before sending to Host C.

**NEW QUESTION 918**

Which three functions are major components of a network virtualization architecture? (Choose three.)

- A. network access control
- B. virtual network services
- C. policy enforcement
- D. authentication services
- E. network resilience
- F. path isolation

**Answer:** ABF

**Explanation:** Network virtualization architecture has three main components: + Network access control and segmentation classes of users: Users are authenticated and either allowed or denied into a logical partition. Users are segmented into employees, contractors and consultants, and guests, with respective access to IT assets. This component identifies users who are authorized to access the network and then places them into the appropriate logical partition. + Path isolation: Network isolation is preserved across the entire enterprise: from the edge to the campus to the WAN and back again. This component maintains traffic partitioned over a routed infrastructure and transports traffic over and between isolated partitions. The function of mapping isolated paths to VLANs and to virtual services is also performed in component.+ Network Services virtualization: This component provides access to shared or dedicated network services such as security, quality of service (QoS), and address management (Dynamic Host Configuration Protocol [DHCP] and Domain Name System [DNS]). It also applies policy per partition and isolates application environments, if required.

Reference:

[http://www.cisco.com/c/en/us/products/collateral/switches/catalyst-6500-series-switches/white\\_paper\\_c11-5315](http://www.cisco.com/c/en/us/products/collateral/switches/catalyst-6500-series-switches/white_paper_c11-5315)

**NEW QUESTION 923**

Refer to the exhibit.

```
CiscoSwitch-MDF-1#configure terminal
CiscoSwitch-MDF-1#interface VLAN 1
CiscoSwitch-MDF-1 (config-if)#ip address 192.168.2.2 255.255.255.0
CiscoSwitch-MDF-1 (config-if)#end
```

What is the effect of the given configuration?

- A. It configures an inactive switch virtual interface.
- B. It configures an active management interface.
- C. It configures the native VLAN.
- D. It configures the default VLAN.

**Answer:** A

**NEW QUESTION 924**

Which two addresses are defined as private IP addresses? (Choose two)

- A. 172.31.255.100
- B. 12.17.1.20
- C. 172.15.2.250
- D. 10.172.76.200
- E. 192.109.32.10

**Answer:** AD

**NEW QUESTION 926**

Which condition that defines a DMVPN cloud is most important?

- A. It is a Layer 2 MPLS cloud that includes devices in different physical locations.
- B. It uses point-to-point links to connect hub pairs
- C. It uses point-to-point links to connect the hub and spoke routers.
- D. It uses mGRE tunnels to interconnect the hub and spoke routers.

**Answer:** D

**NEW QUESTION 928**

Which step must you perform first to begin a TACACS+ configuration?

- A. Configure a TACACS+ server.
- B. Associate the TACACS+ server to an AAA group
- C. Enable AAA services.
- D. Configure a local user

**Answer:** C

**NEW QUESTION 933**

Refer to the exhibit.

```
R1# show ip route
      172.31.0.0/16 is variably subnetted, 3 subnets, 2 masks
S       172.31.3.16/28 [1/0] via 172.31.123.3
S       172.31.3.0/28 [1/0] via 172.31.123.3
S       172.31.2.0/24 [1/0] via 172.31.123.2
```

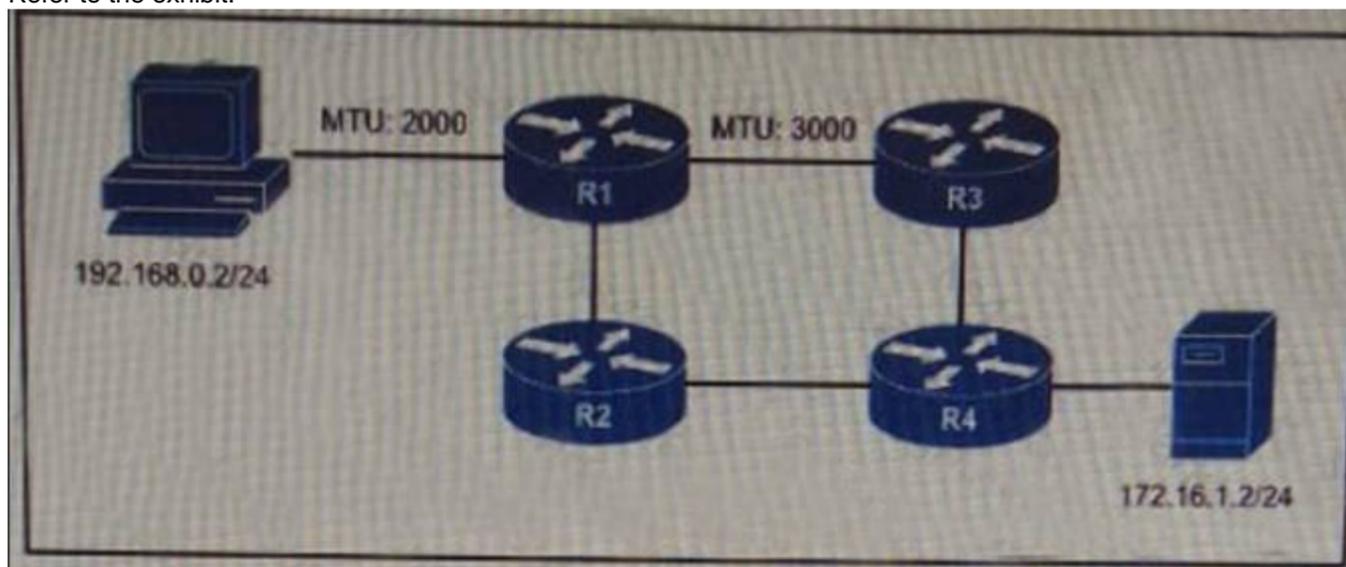
Which two statements about the route 172.61.3.16/28 are true? (Choose two)

- A. It has a metric of 1
- B. It is less preferred than dynamically learned routes
- C. It is preferred over dynamically learned routes
- D. It was learned from a remote router
- E. It has a default administrative distance of 1

**Answer:** CE

**NEW QUESTION 936**

Refer to the exhibit.



The server on this network is configured with an MTU of 9216, and the two interfaces on router R1 are configured for MTUs of 2000 and 3000 as shown. What is the largest packet size that can pass between the workstation and the server?

- A. 1500 bytes
- B. 2000 bytes
- C. 3000 bytes
- D. 9216 bytes

**Answer:** D

**NEW QUESTION 940**

Which two statements about 1000BASE-T UTP cable are true? (Choose two)

- A. It uses four wires.
- B. It uses four wire pairs.
- C. It is most appropriate for installations up to 1000 feet in length.
- D. It is most appropriate for installations up to 1000 meters in length.
- E. Both ends of the cable can transmit and receive simultaneously.

**Answer:** BE

**NEW QUESTION 942**

Which two statements about the APIC-EM ACL Trace tool are true? (Choose two)

- A. Traffic analysis is performed for an entire path from source to destination, even if an ACL along the path would have blocked the actual traffic
- B. It analyzes egress traffic flow only
- C. It can analyze ingress and egress traffic flows
- D. If an ACL along the path from source to destination would have blocked the actual traffic, the traffic analysis stops at that ACL.
- E. If traffic matches more than one entry in a single ACL, higher and lower priority entries are applied

**Answer:** CD

**NEW QUESTION 945**

Which two statements about the ip default-network command are true? (Choose two.)

- A. It specifies the network that is used when the device cannot find an exact match in the routing table.
- B. It can be configured on a Layer 2 switch to specify the next hop.
- C. It specifies the network that is used when the device finds an exact match in the routing table.
- D. It requires IP routing to be enabled on the device.
- E. It requires IP routing to be disabled on the device.

**Answer:** CD

**Explanation:** [https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute\\_pi/configuration/xe-3se/3650/iri-xe-3se-3650-book/ir](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute_pi/configuration/xe-3se/3650/iri-xe-3se-3650-book/ir)

**NEW QUESTION 946**

Which two descriptions of distance-vector routing protocols are true? (Choose two)

- A. Each router is aware of only its neighbor routers.

- B. Each router determines its own path to a destination.
- C. Each router views the network as if it were the root of its own topology.
- D. The hop count metric is used to determine the best path to a destination.
- E. Each router in the network shares a database of known routes.

**Answer:** DE

**NEW QUESTION 947**

Which two topology state codes are displayed with the show ip eigrp topology command? (Choose two)

- A. A – Active
- B. I – Inter-Area
- C. U – Update
- D. C – Connected
- E. S – Static

**Answer:** AD

**NEW QUESTION 951**

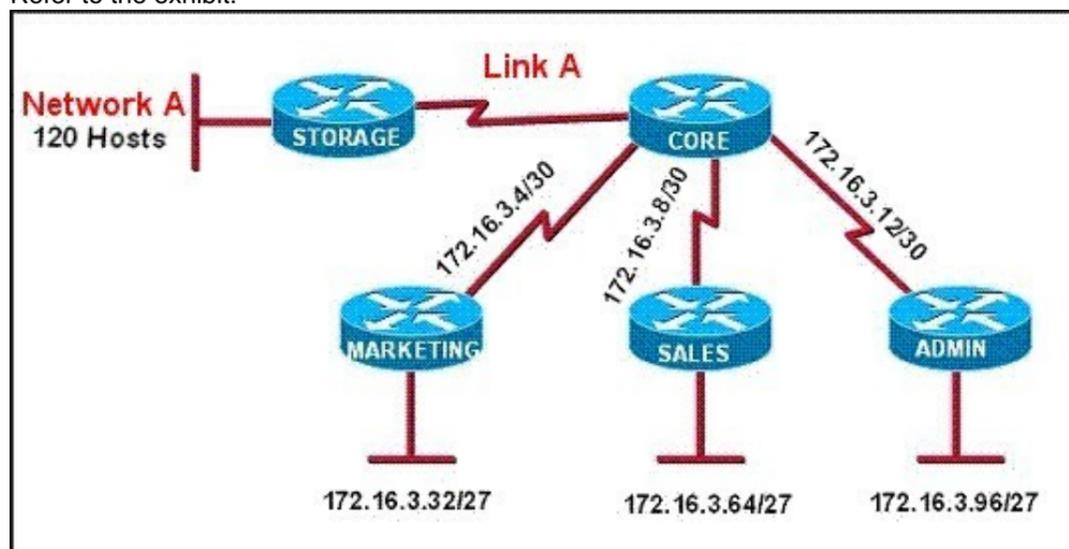
For which routes does the distance bgp 10 50 70 command set the administrative distance?

- A. for BGP external routes only
- B. for all BGP routes
- C. between BGP routes and IGP routes
- D. for BGP internal routes only

**Answer:** B

**NEW QUESTION 953**

Refer to the exhibit.



All of the routers in the network are configured with the ip subnet-zero command. Which network addresses should be used for Link A and Network A? (Choose two.)

- A. Network A - 172.16.3.48/26
- B. Network A - 172.16.3.128/25
- C. Network A - 172.16.3.192/26
- D. Link A - 172.16.3.0/30
- E. Link A - 172.16.3.40/30
- F. Link A - 172.16.3.112/30

**Answer:** BD

**Explanation:** Only a /30 is needed for the point to point link and since the use of the ip subnet-zero was used, 172.16.3.0/30 is valid. Also, a /25 is required for 120 hosts and again 172.16.3.128/25 is the best, valid option.

**NEW QUESTION 957**

What is the effect of configuring a server farm on a switch that operates in VLAN 20 using isolated ports?

- A. Hosts in the server farm are unable to communicate with each other.
- B. The primary VLAN and hosts are able to communicate with hosts on other VLANs
- C. The primary VLAN and hosts are able to reach community ports.
- D. The primary VLAN and hosts are able to communicate with each other

**Answer:** D

**NEW QUESTION 958**

Which command can you enter to set the default route for all traffic to an IP address router interface?

- A. router(config)#ip router 0.0.0.0 255.255.255.255 GigabitEthernet0/1
- B. router(config)#ip route 0.0.0.0 0.0.0.0 GigabitEthernet0/1

- C. router(config)#ip default-gateway GigabitEthernet0/1
- D. router(config-router) #default-information originate

**Answer:** B

**NEW QUESTION 963**

Which two statements about LLDP are true? (Choose two.)

- A. It enables systems to learn about one another over the data-link layer.
- B. It is a Cisco-proprietary technology.
- C. It is implemented in accordance with the 802.11a specification.
- D. It uses mandatory TLVs to discover the neighboring devices.
- E. It functions at Layer 2 and Layer 3.

**Answer:** AD

**NEW QUESTION 966**

What are two benefits of private IPv4 IP addresses? (Choose two.)

- A. They can be assigned to devices not requiring Internet connections.
- B. They eliminate the necessity for NAT policies.
- C. They eliminate duplicate IP conflicts.
- D. They are routed to the Internet the same as public IP addresses.
- E. They are less costly than public IP addresses.

**Answer:** AE

**NEW QUESTION 967**

On which type of interface can you perform an ACL-based Path Trace with APIC-EM?

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

**Answer:** C

**NEW QUESTION 970**

Under which two circumstances is a switch port that is configured with PortFast BPDU guard error-disabled? (Choose two.)

- A. when a single IP address is configured on the switch
- B. when the switch receives a request for an IP address from an individual PC
- C. when a connected server has more than one VLAN configured on its NIC
- D. when the switch receives a BPDU from a connected switch
- E. when a wireless access point running in bridge mode is connected to a switch

**Answer:** CE

**NEW QUESTION 971**

Which impact of the passive-interface serial0/0 command is true when configuring RIPv2?

- A. The interface begins transmitting RIPv1 and RIPv2 routes
- B. The interface stops sending outbound routing updates.
- C. The interface begins ignoring inbound routing updates
- D. The interface begins accepting RIPv1 and RIPv2 routes

**Answer:** B

**NEW QUESTION 974**

Which two statements about wireless LAN controllers are true? (Choose two)

- A. They can manage mobility policies at a systemwide level
- B. They rely on external firewalls for WLAN security.
- C. They can simplify the management and deployment of wireless LANs.
- D. They are ideal for small wireless networks.
- E. They must be configured through a GUI over HTTP or HTTPS.

**Answer:** AC

**NEW QUESTION 979**

Which two descriptions of the default behavior of a router when you enter an invalid Cisco IOS CLI command are true?

- A. The router returns an error message.
- B. The router queries the default DNS server for the invalid command.
- C. The router prompts the user to enter an IP address.

- D. The router sends a broadcast message in an attempt to resolve the invalid command to an IP address.
- E. The router displays a system message prompting you to configure a DNS server.
- F. The router interprets the invalid command as a hostname

**Answer:** AF

**NEW QUESTION 982**

Which command can you enter on a router to identify the path a packet takes to a remote device?

- A. trace path
- B. ping
- C. debug ip packet
- D. traceroute

**Answer:** D

**NEW QUESTION 984**

Which two tasks must you perform to configure PPPoE on an interface? (Choose two)

- A. Create a client dialer pool.
- B. Enable PPPoE logging.
- C. Enable PPPoE on the interface.
- D. Enable PPPoE globally.
- E. Configure a loopback interface.

**Answer:** CE

**NEW QUESTION 989**

Which two characteristics of a link-state routing protocol are true? (Choose two)

- A. Each router in the network maintains a separate routing database of its own neighbors.
- B. Each router uses LSAs to exchange the information about the network topology.
- C. Each router uses Dijkstra's algorithm to determine the shortest path.
- D. Each router establishes an adjacency to every other router in the network
- E. Each router uses the same path to each network in the topology.

**Answer:** BC

**NEW QUESTION 993**

Which command can you enter on a Cisco IOS device to enable a schedule algorithm that directs lookup calls to multiple DNS hosts?

- A. ip name-server 192.168.10.14.192.168.10.15
- B. ip domain lookup
- C. ip domain round-robin
- D. ip domain list

**Answer:** A

**NEW QUESTION 998**

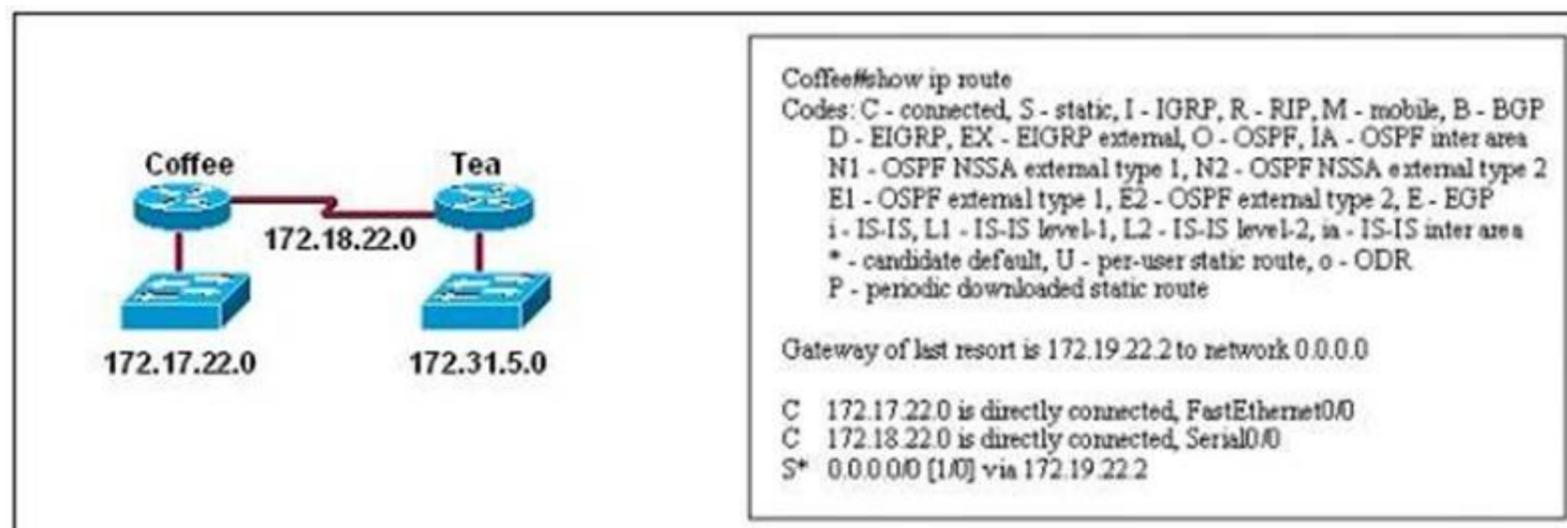
Which two design models can you use to deploy DMVPN? (Choose two)

- A. WAN aggregation
- B. DMVPN only
- C. Internet VPN
- D. DMVPN backup shared
- E. dual DMVPN
- F. DMVPN backup dedicated

**Answer:** BE

**NEW QUESTION 1002**

Users on the 172.17.22.0 network cannot reach the server located on the 172.31.5.0 network. The network administrator connected to router Coffee via the console port, issued the show ip route command, and was able to ping the server.



Based on the output of the show ip route command and the topology shown in the graphic, what is the cause of the failure?

- A. The network has not fully converged.
- B. IP routing is not enabled.
- C. A static route is configured incorrectly.
- D. The FastEthernet interface on Coffee is disabled.
- E. The neighbor relationship table is not correctly updated.
- F. The routing table on Coffee has not updated.

**Answer: C**

**Explanation:** The default route or the static route was configured with incorrect next-hop ip address 172.19.22.2. The correct IP address will be 172.18.22.2 to reach server located on 172.31.5.0 network. IP route 0.0.0.0 0.0.0.0 172.18.22.2

**NEW QUESTION 1005**

Which command can you execute to set the user inactivity timer to 10 seconds?

- A. SW1(config-line)#exec-timeout 0 10
- B. SW1(config-line)#exec-timeout 10
- C. SW1(config-line)#absolute-timeout 0 10
- D. SW1(config-line)#absolute-timeout 10

**Answer: A**

**NEW QUESTION 1006**

Which two statements about private addresses are true? (Choose two)

- A. They can be used without tracking or registration
- B. They are used on a home network, they must be translated before they can connect to the Internet
- C. They can traverse the Internet when an outbound ACL is applied.
- D. The IP address authority issues them in conjunction with an autonomous system number
- E. An individual enterprise network can use up to 65,536 private addresses

**Answer: AB**

**NEW QUESTION 1007**

Which functionality does split horizon provide?

- A. It prevents routing loops in link-state protocols.
- B. It prevents switching loops in distance-vector protocols.
- C. It prevents routing loops in distance-vector protocols.
- D. It prevents switching loops in link-state protocols.

**Answer: C**

**NEW QUESTION 1009**

Which two statements about the tunnel mode ipv6ip command are true? (Choose two.)

- A. It specifies that the tunnel is a Teredo tunnel.
- B. It specifies IPv6 as the encapsulation protocol.
- C. It enables the transmission of IPv6 packets within the configured tunnel.
- D. It specifies IPv4 as the encapsulation protocol.
- E. It specifies IPv6 as the transport protocol.

**Answer: CD**

**NEW QUESTION 1014**

If all switches are configured with default values, which switch will take over when the primary root bridge experiences a power loss?

- A. switch 00E0.F90B.6BE3

- B. switch 0040. 0BC0.90C5
- C. switch 004.9A1AC182
- D. switch 00E0 F726. 3D C6

**Answer:** C

**NEW QUESTION 1018**

Which two EXEC mode commands can simplify DHCP lease management? (Choose two)

- A. release dhcp
- B. no ip dhcp conflict logging
- C. Renew dhcp
- D. ip address dhcp
- E. ip dhcp ping timeout 500

**Answer:** AC

**NEW QUESTION 1023**

Which three statements about link-state routing are true? (Choose three)

- A. Updates are sent to a broadcast address.
- B. Updates are sent to a multicast address by default.
- C. Routes are updated when a change in topology occurs.
- D. It uses split horizon.
- E. OSPF is a link-state protocol.
- F. RIP is a link-state protocol.

**Answer:** BCE

**NEW QUESTION 1027**

Which two pieces of information are displayed with the show ipv6 ospf 5 multi-area command? (Choose two)

- A. Interface ID number
- B. reliability of each local interface
- C. local OSPF area
- D. number of interfaces in the area
- E. transmit and receive rates of each local interface

**Answer:** AD

**NEW QUESTION 1029**

Which command is used to enter IP SLA configuration mode?

- A. icmp-echo
- B. frequency
- C. ip sla
- D. enable

**Answer:** C

**NEW QUESTION 1034**

Which two statements about wireless controllers are true? (Choose two)

- A. They provide Layer 2 services only
- B. They can be configured as virtual controllers to support autonomous access points
- C. They provide the configuration for managed access points on the network
- D. They are intended to directly manage a small number of access points
- E. At least one physical controller is needed to manage the virtual controllers of a network
- F. They can facilitate load balancing between access points

**Answer:** CF

**NEW QUESTION 1039**

You have configured a router with an OSPF router. ID, but its IP address still the physical interface. Which action can you take to correct the problem in the least disruptive way?

- A. Reload the OSPF process.
- B. Reload the router.
- C. Specify the router.
- D. Save the router configuration.

**Answer:** A

**NEW QUESTION 1044**

What is the default Syslog facility level?

- A. livca4
- B. local5
- C. local7
- D. local6

**Answer: C**

**NEW QUESTION 1047**

Refer to the exhibit.

```
R1# show ip route
C    192.168.10.0/24 is directly connected, Vlan10
O    192.168.11.0/24 [19/2] via 172.20.3.2, 1w1d, GigabitEthernet0/1
S    192.168.12.0/24 [1/0] via 172.20.4.5
R    172.20.10.21 [20/0] via 192.168.250.35, 7w0d
U    192.168.20.0/24 is directly connected, GigabitEthernet 0/3
D    172.20.30.21 [20/0] via 192.168.200.45, 2d19h
```

Which two route codes indicate routes that use a Distance Vector Protocol? (Choose two)

- A. C
- B. D
- C. O
- D. R
- E. S

**Answer: BD**

**NEW QUESTION 1050**

What two actions can be taken to secure the virtual terminal interfaces on a router? (Choose two.)

- A. Administratively shut down the interface.
- B. Physically secure the interface
- C. Create an access list and apply it to the virtual terminal interfaces with the access-group command.
- D. Enter an access list and apply it to the virtual terminal interfaces using the access command.
- E. Configure a virtual terminal password and login process.

**Answer: DE**

**NEW QUESTION 1055**

When EIGRP for IPv6 is configured, what is the effect of the distance 100 150 command?

- A. It adds 100 to the external administrative distance and adds 150 to the internal administrative distance
- B. It sets the internal EIGRP administrative distance to 100 and the external EIGRP administrative distance to 150
- C. It sets the external EIGRP administrative distance to 100 and the internal EIGRP administrative distance to 150
- D. It adds 100 to the internal administrative distance and adds 150 to the external administrative distance

**Answer: B**

**NEW QUESTION 1056**

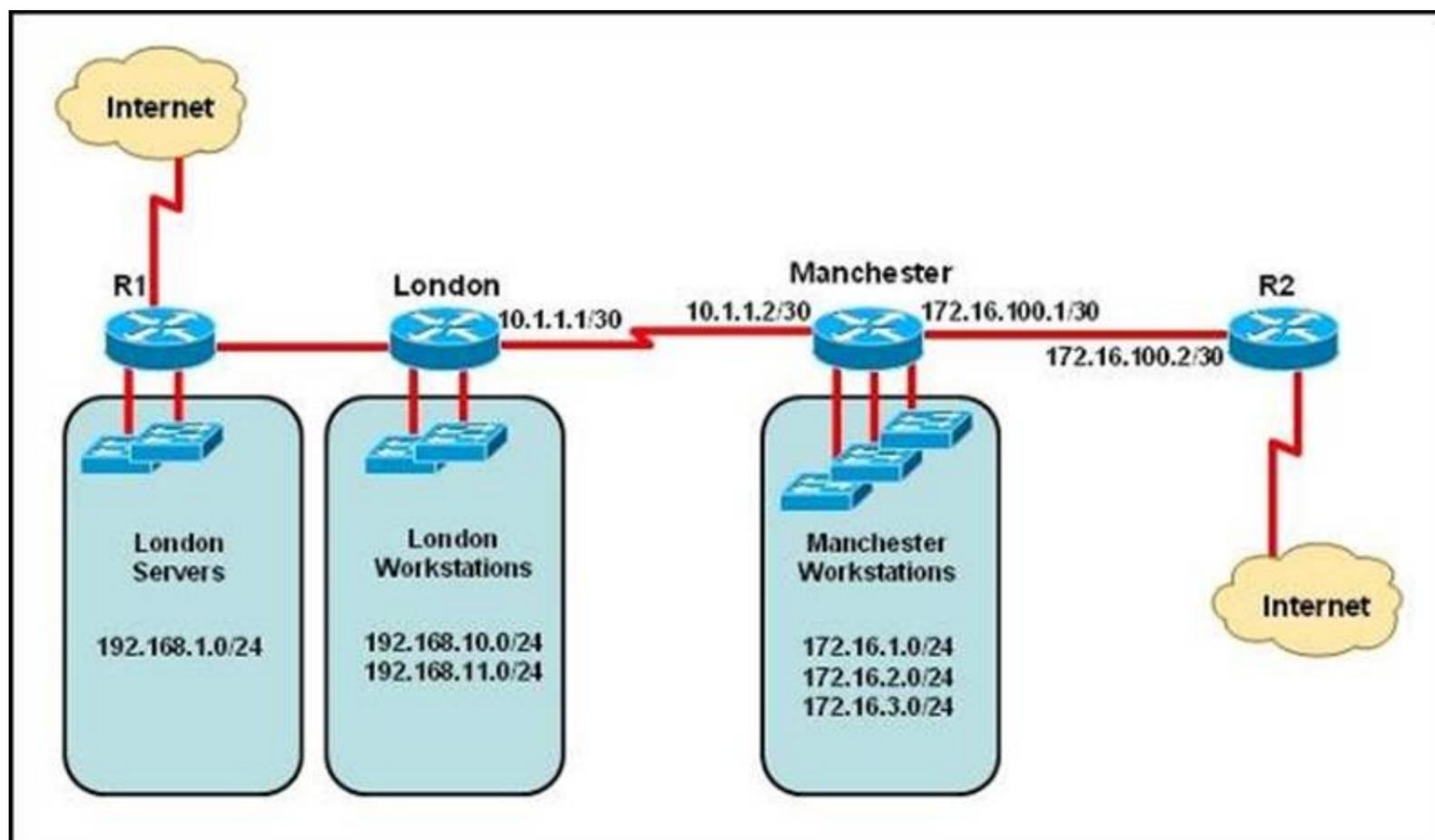
Which three values can be included in the routing table of a router? (Choose three)

- A. classful and classless destination addresses
- B. source interfaces
- C. Routgoing interfaces
- D. source IP addresses
- E. next hop IP address
- F. destination IP addresses

**Answer: CDF**

**NEW QUESTION 1057**

Refer to the exhibit.



The network administrator must establish a route by which London workstations can forward traffic to the Manchester workstations. What is the simplest way to accomplish this?

- A. Configure a dynamic routing protocol on London to advertise all routes to Manchester.
- B. Configure a dynamic routing protocol on London to advertise summarized routes to Manchester.
- C. Configure a dynamic routing protocol on Manchester to advertise a default route to the London router.
- D. Configure a static default route on London with a next hop of 10.1.1.1.
- E. Configure a static route on London to direct all traffic destined for 172.16.0.0/22 to 10.1.1.2.
- F. Configure Manchester to advertise a static default route to London.

**Answer:** E

**Explanation:** Explanation

This static route will allow for communication to the Manchester workstations and it is better to use this more specific route than a default route as traffic destined to the Internet will then not go out the London Internet connection.

**NEW QUESTION 1058**

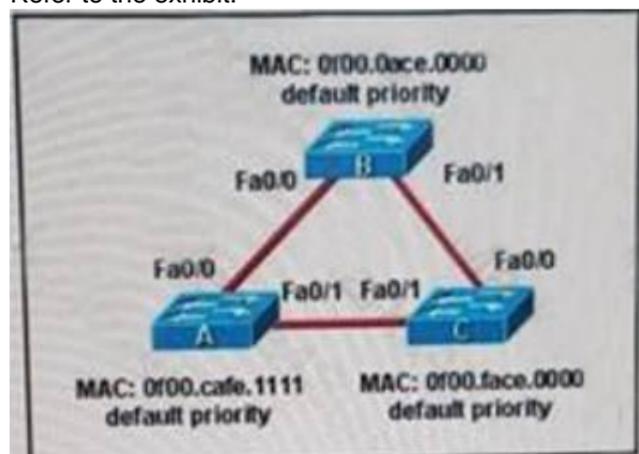
Which configuration gracefully brings down the line protocol status of a GRE tunnel interface if the tunnel destination becomes unreachable?

- A. Configure tunnel interface keepalives.
- B. Configure a static route for the tunnel
- C. Replace the tunnel with a loopback interface
- D. Configure an IGP such as OSPF on the tunnel

**Answer:** C

**NEW QUESTION 1062**

Refer to the exhibit.



Which three ports will be STP designated if all the links are operating at the same bandwidth? (Choose three.)

- A. Switch A - Fa0/0
- B. Switch A - Fa0/1
- C. Switch B - Fa0/0
- D. Switch B - Fa0/1
- E. Switch C - Fa0/0
- F. Switch C - Fa0/1

**Answer:** BCD

**NEW QUESTION 1066**

Which two fields are included in the TCP and UDP packet headers? (Choose two)

- A. destination port
- B. sequence number
- C. checksum
- D. offset
- E. window

**Answer:** AB

**NEW QUESTION 1068**

After you enable routing on a switch, which two tasks must you perform to configure inter-VLAN routing on an SVI interface? (Choose two)

- A. Configure a routing protocol to route the traffic
- B. Configure the ip default-gateway command on the switch
- C. Configure an ACL to route only the necessary traffic
- D. Configure an IP address on each VLAN interface.
- E. Ensure that the target VLANs are present in the switch database

**Answer:** CE

**NEW QUESTION 1070**

Which two commands can you enter to configure an interface to actively negotiate an EtherChannel? (Choose two.)

- A. channel-group 10 mode on
- B. channel-group 10 mode passive
- C. channel-group 10 mode active
- D. channel-group 10 mode desirable
- E. channel-group 10 mode auto

**Answer:** CD

**NEW QUESTION 1072**

What authentication type is used by SNMPv2?

- A. username and password
- B. community strings
- C. HMAC-SHA
- D. HMAC-MD5

**Answer:** B

**NEW QUESTION 1074**

Which two statements about BPDU guard are true? (Choose two)

- A. It is supported on trunk ports
- B. It sends BPDUs on a port to maintain the up status.
- C. It error-disables a PortFast-configured port when the port receives a BPDU.
- D. It is required on private VLAN access ports
- E. It is supported on non-trunking access ports
- F. It can increase the likelihood of loops occurring in a network

**Answer:** CE

**NEW QUESTION 1075**

Refer to the exhibit.

```

SW1#show etherchannel summary
Flags: D - down        P - in port-channel
       I - stand-alone  S - suspended
       H - Hot-standby (LACP only)
       L - Layer3      U - Layer2
       O - in use      F - failed to allocate aggregator
       u - unusable for bundling
       W - waiting to be aggregated
       d - default port

Number of channel-groups in use: 2
Number of aggregators:          2

Group  Port-channel  Protocol    Ports
-----+-----+-----+-----
1      Fa0(20)          -           Fa0/2(P) Fa0/1(D)

SW1#show interface fa0/1
FastEthernet0/1 is down, line protocol is down (disabled)
Hardware is Lance, address is 0000.0c11.0501
(bia 0000.0c11.0501)
MTU 1500 bytes, BW 10000 Tbit, DLY 1000 usec,
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
Full-duplex, 100Mb/s
input flow-control is off, output flow-control is off
ARP type: ARPA, ARP Timeout 04:00:00
last input 00:00:00, output 00:00:05, output hang never
last clearing of "show interface" counters never
input queue: 0/75/0/0 (size/max/drops/flushes):
  Total output drops: 0
Queueing strategy: fifo
output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec

SW2#show etherchannel summary
Flags: D - down        P - in port-channel
       I - stand-alone  S - suspended
       H - Hot-standby (LACP only)
       L - Layer3      U - Layer2
       O - in use      F - failed to allocate aggregator
       u - unusable for bundling
       W - waiting to be aggregated
       d - default port

Number of channel-groups in use: 2
Number of aggregators:          2

Group  Port-channel  Protocol    Ports
-----+-----+-----+-----
1      Fa0(20)          -           Fa0/2(P) Fa0/1(D)

SW2#show interface fa0/1
FastEthernet0/1 is down, line protocol is down (disabled)
Hardware is Lance, address is 00d0.97a7.7901
(bia 00d0.97a7.7901)
MTU 1500 bytes, BW 10000 Tbit, DLY 1000 usec,
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
Full-duplex, 100Mb/s
input flow-control is off, output flow-control is off
ARP type: ARPA, ARP Timeout 04:00:00
last input 00:00:00, output 00:00:05, output hang never
last clearing of "show interface" counters never
input queue: 0/75/0/0 (size/max/drops/flushes):
  Total output drops: 0
Queueing strategy: fifo
output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
    
```

If the devices produced the given output, what is the cause of the EtherChannel problem?

- A. There is a speed mismatch between SW1's SW2's Fa0/1 interfaces.
- B. There is an encapsulation mismatch between SW1's Fa0/1 and SW2's Fa0/1 interfaces.
- C. SW1's Fa0/1 interface is administratively shut down.
- D. There is an MYU mismatch between SW1's Fa0/1 interfaces.

Answer: A

**NEW QUESTION 1079**

Which two networking standards use copper cable? (Choose two)

- A. 100BASE-LX
- B. 10BASE-T
- C. 802.11ac
- D. 802.3d
- E. 802.3

Answer: AB

**NEW QUESTION 1082**

Which two commands back up a configuration to a remote server? (Choose two)

- A. copy tftp running-config
- B. copy tftp startup-config
- C. copy running-config tftp
- D. copy startup-config tftp
- E. copy running-config startup-config

Answer: CE

**NEW QUESTION 1084**

Which command is configure on a switch to enable neighbor discovery in a multivendor environment?

- A. lldp run
- B. lldp transmit
- C. lldp receive
- D. cdp run

Answer: A

**NEW QUESTION 1086**

Which two statements about floating static routes are true? (Choose two)

- A. They are used when a route to the destination network is missing.
- B. They are used as backup routes when the primary route goes down.
- C. They are dynamic routes that are learned from a server.
- D. They have a higher administrative distance than the default static route administrative distance.

E. They are routes to the exact /32 destination address.

**Answer:** BD

**NEW QUESTION 1091**

Refer to the exhibit.

```

R1# show ip route
C    192.168.10.0/24 is directly connected, Vlan10
O    192.168.11.0/24 [110/2] via 172.20.3.2, 1w1d, GigabitEthernet0/1
S    192.168.12.0/24 [1/0] via 172.20.4.5
R    172.20.10.21 [120/2] via 192.168.250.35, 7w0d
B    172.20.20.21 [20/0] via 192.168.220.40, 7w9d
O    172.20.30.21 [110/2] via 192.168.200.45, 2d19h
    
```

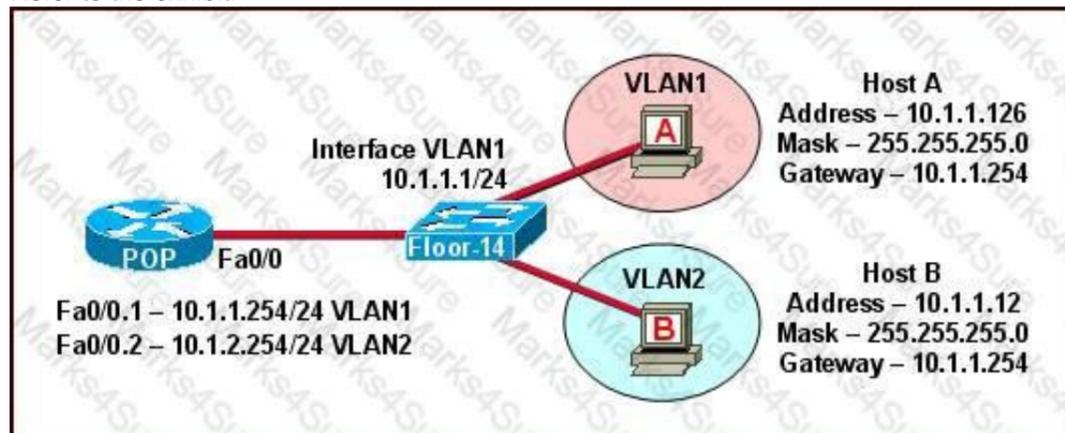
Which two routes originate from R1? (Choose two)

- A. 172.20.20.21
- B. 192.168.10.0/24
- C. 192.168.12.0/24
- D. 192.168.11.0/24
- E. 172.20.10.21

**Answer:** AD

**NEW QUESTION 1094**

Refer to the exhibit.



The network shown in diagram is experiencing connectivity problems. Which two configuration changes will correct the problems? (Choose two.)

- A. Configure the gateway on Host A as 10.1.1.1.
- B. Configure the gateway on Host B as 10.1.2.254.
- C. Configure the IP address of Host A as 10.1.2.2.
- D. Configure the IP address of Host B as 10.1.2.2.
- E. Configure the masks on both hosts to be 255.255.255.224.
- F. Configure the masks on both hosts to be 255.255.255.240.

**Answer:** BD

**Explanation:** The switch 1 is configured with two VLANs: VLAN1 and VLAN2. The IP information of member Host A in VLAN1 is as follows: Address : 10.1.1.126  
Mask : 255.255.255.0  
Gateway : 10.1.1.254  
The IP information of member Host B in VLAN2 is as follows: Address : 10.1.1.12  
Mask : 255.255.255.0  
Gateway : 10.1.1.254  
The configuration of sub-interface on router 2 is as follows: Fa0/0.1 -- 10.1.1.254/24 VLAN1  
Fa0/0.2 -- 10.1.2.254/24 VLAN2  
It is obvious that the configurations of the gateways of members in VLAN2 and the associated network segments are wrong. The layer3 addressing information of Host B should be modified as follows:  
Address : 10.1.2.X Mask : 255.255.255.0

**NEW QUESTION 1099**

Which utility can you use to identify the cause of a traffic-flow blockage between two devices in a network?

- A. ACL analysis tool in APIC-EM
- B. ACL path analysis tool in APIC-EM
- C. APIC-EM automation scheduler
- D. iWan application

**Answer:** B

**NEW QUESTION 1102**

ACisco router is booting and has just completed the POST process. It is now ready to find and load an IOS image. What function does the router perform next?

- A. It attempts to boot from a TFTP server.
- B. It checks the configuration register.
- C. It inspects the configuration file in NVRAM for boot instructions.
- D. It loads the first image file in flash memory.

**Answer:** B

**NEW QUESTION 1104**

Which two benefits of implementing point-to-point links for WAN connections are true? (Choose two)

- A. You can configure multiple point-to-point connections on each interface.
- B. They can provide dedicated capacity
- C. They are a low-cost option
- D. They operate with low latency
- E. They can provide flexible routing.

**Answer:** BC

**NEW QUESTION 1107**

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