

## Exam Questions 200-125

CCNA Cisco Certified Network Associate CCNA (v3.0)

<https://www.2passeasy.com/dumps/200-125/>



#### 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 utility can you use to identify redundant or shadow rules ?

- A. The ACL trace tool in Cisco APIC-EM.
- B. The ACL analysis tool in Cisco APIC-EM.
- C. The Cisco APIC-EM automation scheduler.
- D. The Cisco IWAN application.

**Answer: B**

#### NEW QUESTION 3

which three technical services support cloud computing ?

- A. network-monitored power sources
- B. layer 3 network routing
- C. ip localization
- D. redundant connections
- E. VPN connectivity
- F. extended SAN services

**Answer: DEF**

#### NEW QUESTION 4

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 5

which two types of information are held in the mac address table ?

- A. destination ip addresses
- B. protocols
- C. port numbers
- D. mac address
- E. source ip address

**Answer: CD**

#### 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

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 10

Which command can you enter to determine the addresses that have been assigned on a DHCP Server?

- A. Show ip DHCP database.
- B. Show ip DHCP pool.
- C. Show ip DHCP binding.
- D. Show ip DHCP server statistic.

**Answer: C**

**Explanation:** Reference: <http://www.aubrett.com/InformationTechnology/RoutingandSwitching/Cisco/CiscoRouters/DHCPBindings.aspx>

“Router#show ip dhcp binding

Bindings from all pools not associated with VRF: IP address Client-ID/ Lease expiration Type

10.16.173.1 24d9.2141.0ddd Jan 12 2013 03:42 AM Automatic”

#### NEW QUESTION 10

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 14

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 functionality does split horizon provide ?

- A. it Prevents routing loops in distance vector protocols
- B. it Prevents switching loops in distance vector protocols
- C. it Prevents switching loops in link-state protocols
- D. it Prevents routing loops in link-state protocols

**Answer: A**

#### NEW QUESTION 19

which port security mode can assist with troubleshooting by keeping count of violations?

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

Answer: C

#### NEW QUESTION 22

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

- A. no additional config is required
- B. standby 1 track ethernet
- C. standby 1 preempt
- D. standby 1 priority 250

Answer: A

#### NEW QUESTION 25

Which port security mode can assist with troubleshooting by keeping count of violations?

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

Answer: C

#### NEW QUESTION 26

which two options are the best reasons to use an ipv4 private ip space ?

- A. to manage routing overhead
- B. to implement nat
- C. to connect applications
- D. to enable intra-enterprise communication
- E. to conserve global address space

Answer: AE

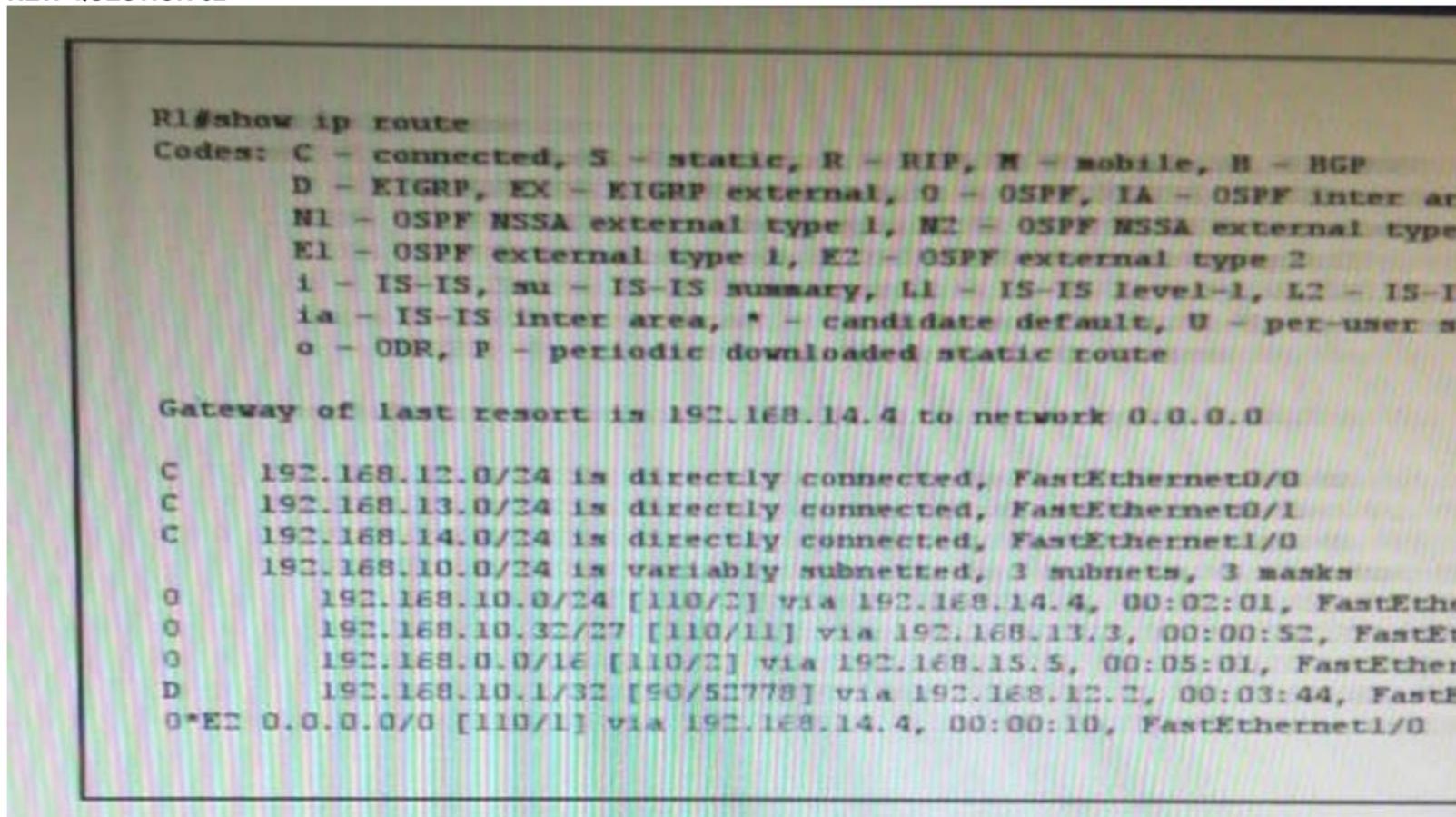
#### NEW QUESTION 29

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 32



```
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, FastEthernet1/0
O    192.168.0.0/16 [110/2] via 192.168.15.5, 00:05:01, FastEthernet1/0
D    192.168.10.1/32 [90/51778] via 192.168.12.2, 00:03:44, FastEthernet1/0
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 33**

On which type of port can switches interconnect for multi-VLAN communication?

- A. interface port
- B. access port
- C. switch port
- D. trunk port

Answer: D

**NEW QUESTION 37**

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 40**

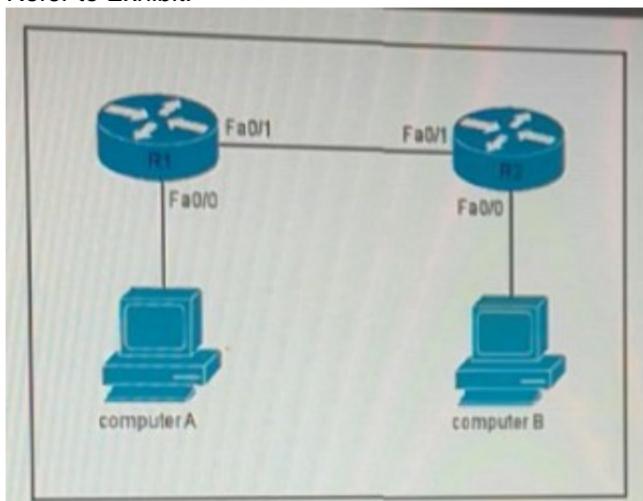
Which two options are fields in an ethernet frame ? choose two

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

Answer: CD

**NEW QUESTION 44**

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 49**

Which two command can you enter to display the current time sources statistics on devices ? (Choose TWO)

- A. Show ntp associations.
- B. Show clock details.
- C. Show clock.
- D. Show time.
- E. Show ntp status.

Answer: AE

**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 58

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 62

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 65

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 66

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 67

Which type of routing protocol operates by using first information from each device peers?

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

**Answer:** A

#### NEW QUESTION 68

Refer to the exhibit,

```
R1
interface Loopback0
 ip address 172.16.1.33 255.255.255.224

interface FastEthernet0/0
 ip address 192.168.12.1 255.255.255.0

router bgp 100
 neighbor 192.168.12.2 remote-as 100
```

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 71

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 72

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 77

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 79

which add 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:

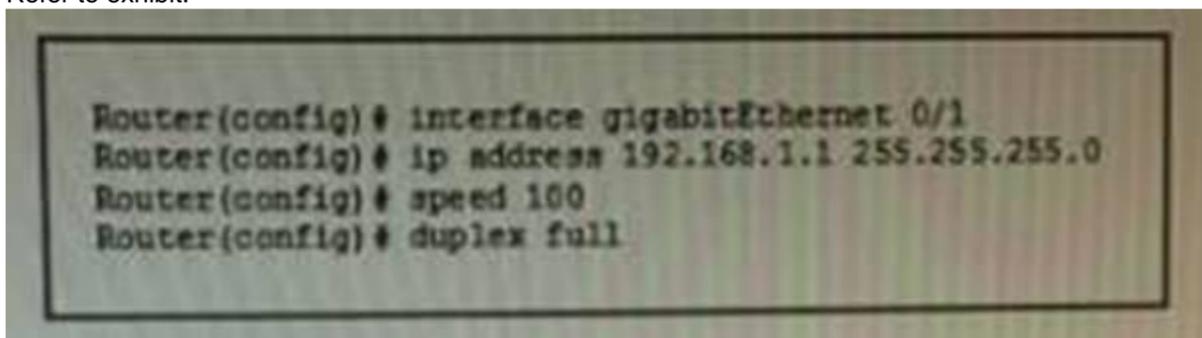
Reference:

[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 84

Refer to exhibit.



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 88

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 91

Refer to the exhibit:

```
R1
ipv6 unicast-routing

interface FastEthernet0/0
no ip address
ipv6 enable
ipv6 address 2001:DB8:12::1/64
ipv6 ospf 1 area 0

ipv6 router ospf 1
router-id 172.16.1.1

R2
ipv6 unicast-routing

interface FastEthernet0/0
no ip address
ipv6 enable
ipv6 address 2001:DB8:12::2/64
ipv6 ospf 1 area 1

ipv6 router ospf 1
router-id 172.16.2.2
```

after you apply the give configurations to R1 and R2 you notice that OSPFv3 fails to start  
Which reason for the problem is most likely true ?

- A. The area numbers on R1 and R2 are mismatched
- B. The IPv6 network addresses on R1 and R2 are mismatched
- C. The autonomous system numbers on R1 and R2 are mismatched
- D. The router ids on R1 and R2 are mismatched

**Answer:** A

#### NEW QUESTION 95

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

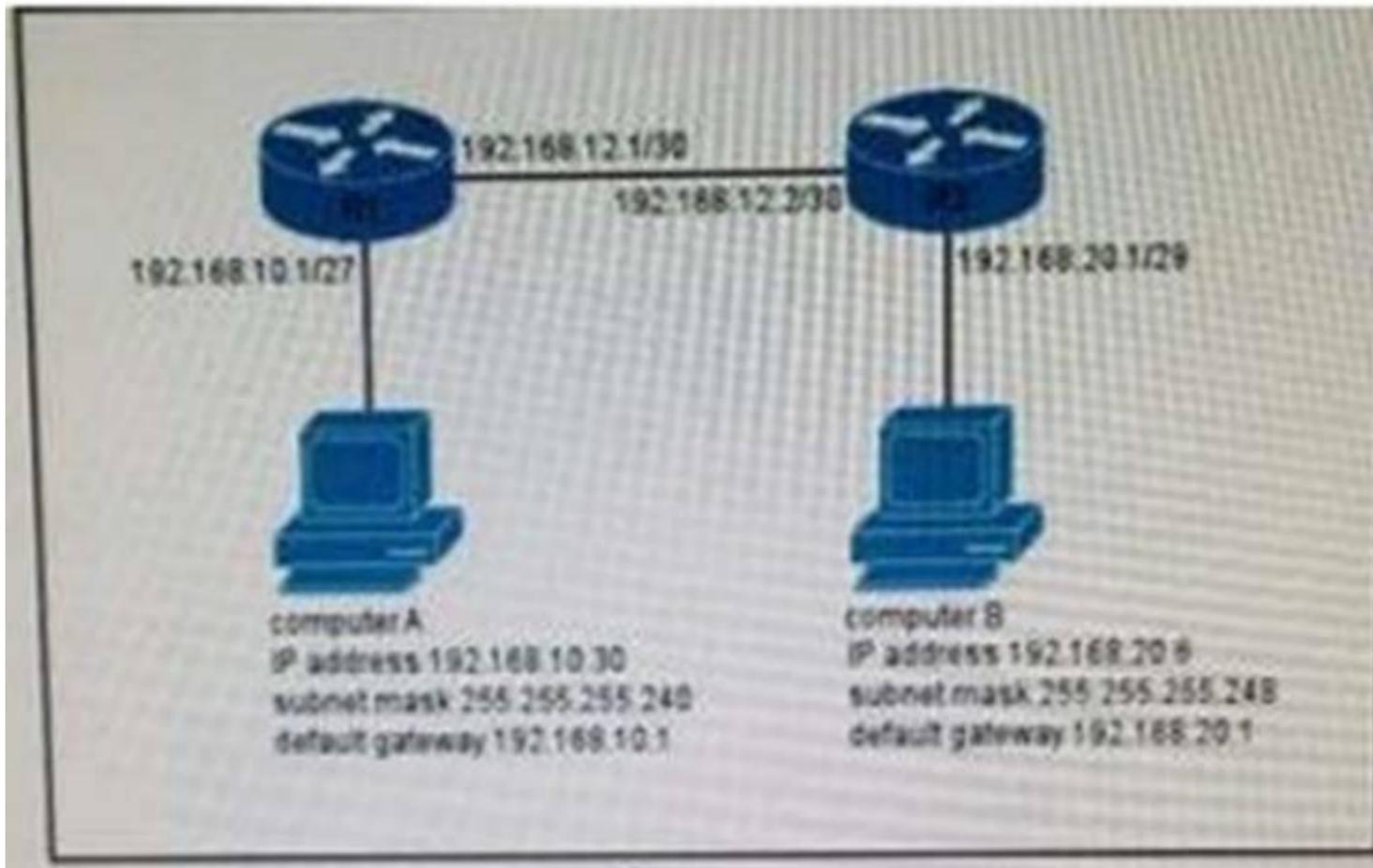
**Answer:** D

**Explanation:** Reference:

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

#### NEW QUESTION 98

Refer to the exhibit, you determine that Computer A cannot ping Computer Which reason for the problem is most likely true?



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

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

**Answer:** A

**Explanation:** 255.255.255.224 =/27

**NEW QUESTION 99**

which two statements about vtp are true ?

- A. all switches must be configured with the same VTP domain name
- B. all switches must be configured with a unique vtp domain name
- C. all switches must be configured to perform trunk negotiation
- D. all switches must use the same VTP Version
- E. The VTP Server must have the highest revision number in the domain

**Answer:** AD

**NEW QUESTION 103**

Which major component of the network virtualization architecture isolates users according to policy?

- A. network services virtualization
- B. access control.
- C. path isolation
- D. policy enforcement

**Answer:** A

**NEW QUESTION 107**

Which header field is new in IPv6?

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

**Answer:** A

**NEW QUESTION 111**

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 114

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 116

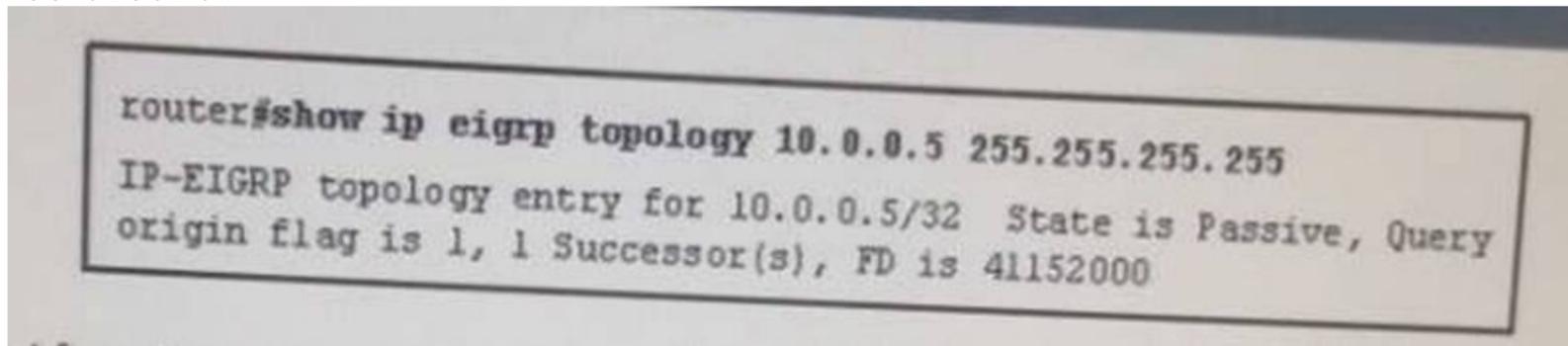
Which feature facilitates the tagging of frames on a specific VLAN?

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

Answer: D

#### NEW QUESTION 119

Refer to the exhibit.



Given the output from the show ip eigrp topology command, which router is the feasible successor?

- A. 10.1.0.1 (Serial0), from 10.1.0.1, Send flag is 0x0 Composite metric is (46152000/41640000), Route is Internal Vector metric:Minimum bandwidth is 64 Kbit Total delay is 45000 Microseconds Reliability is 255/255Load is 1/255 Minimum MTU is 1500 Hop count is 2
- B. 10.0.0.2 (Serial0.1), from 10.0.0.2, Send flag is 0x0 Composite metric is (53973248/128256), Route is Internal Vector Metric:Minimum bandwidth is 48 Kbit Total delay is 25000 Microseconds Reliability is 255/255Load is 1/255 Minimum MTU is 1500 Hop count is 1
- C. 10.1.0.3 (Serial0), from 10.1.0.3, Send flag is 0x0 Composite metric is (46866176/46354176), Route is Internal Vector metric:Minimum bandwidth is 56 Kbit Total delay is 45000 microseconds Reliability is 255/255Load is 1/255 Minimum MTU is 1500 Hop count is 2
- D. 10.1.1.1 (Serial0.1), from 10.1.1.1, Send flag is 0x0Composite metric is (46763776/46251776), Route is External Vector metric:Minimum bandwidth is 56 Kbit Total delay is 41000 microseconds Reliability is 255/255Load is 1/255 Minimum MTU is 1500 Hop count is 2

Answer: B

#### NEW QUESTION 122

Which two options are primary responsibilities of the APIC-EM controller? (Choose two.)

- A. It automates network actions between different device types.
- B. It provides robust asset management.
- C. It tracks license usage and Cisco IOS versions.
- D. It automates network actions between legacy equipment.
- E. It makes network functions programmable.

Answer: AE

**Explanation:** <http://www.cisco.com/c/en/us/products/cloud-systems-management/application-policy-infrastructure-controlleremodule/index.html>

Automate network configuration and setup Deploy network devices faster

Automate device deployment and provisioning across the enterprise. Provide a programmable network

Enable developers to create new applications that use the network to fuel business growth.

#### NEW QUESTION 123

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 126

Which two statements about TACACS+ are true? (Choose two.)

- A. It can run on a UNIX server.
- B. It authenticates against the user database on the local device.
- C. It is more secure than AAA authentication.
- D. It is enabled on Cisco routers by default.
- E. It uses a managed database.

**Answer:** AE

#### NEW QUESTION 128

Which address block identifies all link-local address

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

**Answer:** C

#### NEW QUESTION 131

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 133

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 135

If three devices are plugged into one port on a switch and two devices are plugged into a different port, how many collision domains are on the switch?

- A. 2
- B. 4
- C. 5
- D. 6

**Answer:** C

#### NEW QUESTION 139

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 144

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 147**

Which DTP switch port mode allows the port to create a trunk link if the neighboring port is in trunk mode, dynamic desirable mode, or desirable auto mode?

- A. trunk
- B. access
- C. dynamic desirable
- D. dynamic auto

**Answer:** C

**NEW QUESTION 149**

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 150**

Which statement about spanning tree root bridge election is true ?

- A. every root bridge must reside on the root switch
- B. it is always performed automatically
- C. every VLAN must use the same root bridge
- D. Each VLAN must have its own root bridge

**Answer:** D

**NEW QUESTION 153**

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 157**

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 161**

Which two options are benefits of dhcp snooping ?

- A. it prevents dhcp reservations
- B. it simplifies the process of adding DHCP Servers to the network
- C. it prevents the deployment of rogue DHCP Servers
- D. it prevents static reservations
- E. it Tracks the location of hosts in the network

**Answer:** CE

**NEW QUESTION 163**

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

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

**Answer:** B

**NEW QUESTION 166**

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 171**

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

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

**Answer: C****NEW QUESTION 175**

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 178**

While troubleshooting a DHCP client that is behaving erratically, you discover that the client has been assigned the same IP address as a printer that is a staticIP address. Which option is the best way to resolve the problem?

- A. Configure static route to the client.
- B. Assign the client the same IP address as the router.
- C. Move the client to another IP subnet
- D. Move the printer to another IP subnet.
- E. Reserve the printer IP address.

**Answer: E****NEW QUESTION 183**

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 188**

Which type of secure MAC address must be configured manually?

- A. static

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

**Answer:** A

#### NEW QUESTION 191

Refer to the exhibit.

```
RTR01(config #router eigrp 103
RTR01(config-router)#network 10.4.3.0
RTR01(config-router)#network 172.16.4.0
RTR01(config-router)#network 192.168.2.0
RTR01(config-router)#auto-summary
```

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 195

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 198

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 199

when you troubleshoot an IPv4 connectivity issue on a router, which three router configuration checks you must perform?

- A. Verify that the router interface IP address IP address is correct.
- B. Verify that the DNS is configured correctly.
- C. Verify that the router and the host use the same subnet mask.
- D. Verify that the router firmware is up-to-date.
- E. Verify that a default route is configured.
- F. Verify that the route appears in the routing table

**Answer:** ABF

#### NEW QUESTION 201

Which action can change the order of entries in a named access list?

- A. opening the access list in Notepad.
- B. resequencing
- C. removing an entry
- D. adding an entry

**Answer:** B

**NEW QUESTION 203**

Which option describes the best way to troubleshoot and isolate a network problem?

- A. Gather the facts
- B. Change one variable at a time.
- C. Implement an action plan
- D. Create an Action plan

**Answer: C**

**NEW QUESTION 206**

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 211**

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: A**

**NEW QUESTION 216**

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 218**

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 219**

Which statement about spanning-tree root-bridge election is true?

- A. Every root bridge must reside on the same root switch
- B. it is always performed automatically.
- C. Every VLAN must use the same root bridge.
- D. Each VLAN must have its own root bridge.

**Answer: D**

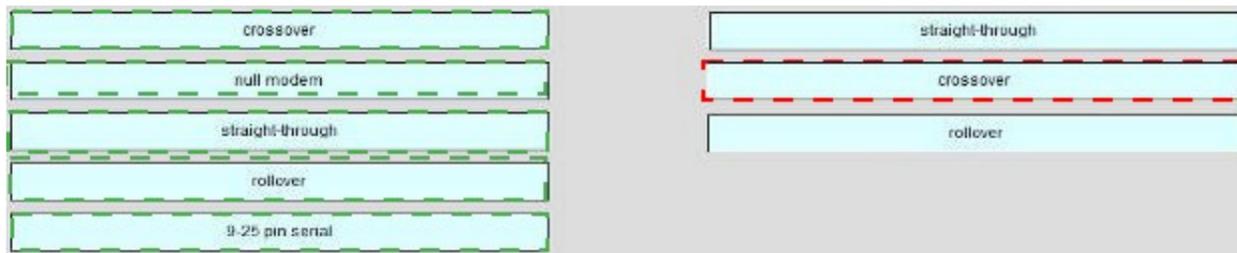
**NEW QUESTION 221**

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:



Topic 2, New Pool Exam B

**NEW QUESTION 222**

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 226**

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 230**

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 232**

Which configuration enables OSPF for network 192.168.1.0/24?

- A. router ospf router-id 192.168.1.0
- B. router ospf 1 network 192.168.1.0 255.255.255.0 area 0
- C. router ospf 1 neighbor 192.168.1.0
- D. router ospf 1 area 0 virtual-link 192.168.1.0

Answer: B

**NEW QUESTION 233**

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 235**

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 238

How does a Cisco switch respond if you boot it without a valid configuration in the NVRAM?

- A. it enters setup mode.
- B. it uses the running –configuration
- C. It prompts you to restore the startup configuration
- D. it enters user EXEC mode.

Answer: B

#### NEW QUESTION 243

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

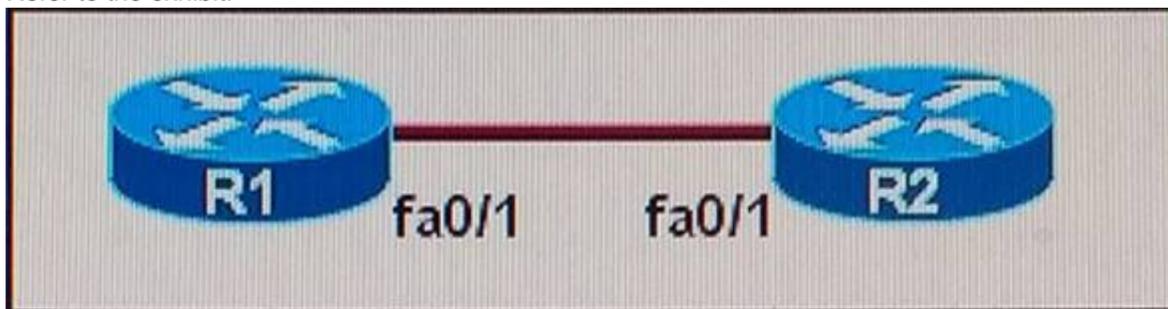
- A. Cisco Intelligent WAN application
- B. traceroute
- C. Network Topology
- D. Path Trace

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 247

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 251

If a host experiences intermittent issues that relate to congestion within a network while remaining connected, which option could cause congestion on this LAN?

- A. multicasting
- B. network segmentation
- C. broadcast storms
- D. half-duplex operation

Answer: C

#### NEW QUESTION 253

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 258

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 260

Which statement about VLAN configuration is true?

- A. The switch must be in config-vlan mode before you configure an extended VLAN.
- B. Dynamic inter-VLAN routing is supported on VLAN 2 through VLAN 4064.
- C. A switch in VTP transparent mode saves the VLAN database to the running configuration only.
- D. The switch must be in VTP server or transparent mode before you configure a VLAN.

**Answer:** D

#### NEW QUESTION 262

Which network configuration can you use to segregate broadcast traffic for two different departments in your organization?

- A. Configure two VTP domains and configure the switches in transparent mode.
- B. Enable spanning-tree load balancing.
- C. Implement switch port security on designated ports.
- D. Configure a separate VLAN for each department.

**Answer:** D

#### NEW QUESTION 267

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

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

**Answer:** D

#### NEW QUESTION 271

For which two reasons was RFC 1918 address space define (Choose two)

- A. to preserve public IPv4 address space
- B. to reduce the occurrence of overlapping IP addresses
- C. to preserve public IPv6 address space
- D. reduce the size of ISP routing tables
- E. to support the NAT protocol

**Answer:** AE

#### NEW QUESTION 275

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 280

Which two statements about eBGP neighbor relationships are true? (Choose two)

- A. The two devices must reside in different autonomous systems
- B. Neighbors must be specifically declared in the configuration of each device
- C. They can be created dynamically after the network statement is configured.
- D. The two devices must reside in the same autonomous system
- E. The two devices must have matching timer settings

**Answer:** AB

#### NEW QUESTION 285

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 287**

```
R1# show access-lists
Extended IP access list 175
10 deny tcp any any time-range nonworkhours (active)
20 permit tcp any any time-range workhours (inactive)
```

Refer to the exhibit. While you troubleshoot a connectivity issue to a PC behind R1, you enter the show access-lists command to generate this output. Which reason for the problem is most likely true?

- A. The permit all ACL entry on R1 is inactive.
- B. The ACL of R1 is misconfigured.
- C. A deny all ACL entry is currently active on R1.
- D. An implicit deny is causing R1 to block network traffic.

Answer: D

**NEW QUESTION 292**

Which command displays the number of times that an individual router translated an inside address to an outside address?

- A. show ip protocol
- B. show ip nat translation
- C. show counters
- D. show ip route
- E. show ip nat statistics

Answer: B

**NEW QUESTION 296**

Which command must you enter to enable OSPFv2 in an IPv4 network ?

- A. ip ospf hello-interval seconds
- B. router ospfv2 process-id
- C. router ospf value
- D. router ospf process-id

Answer: D

**NEW QUESTION 299**

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 303**

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.

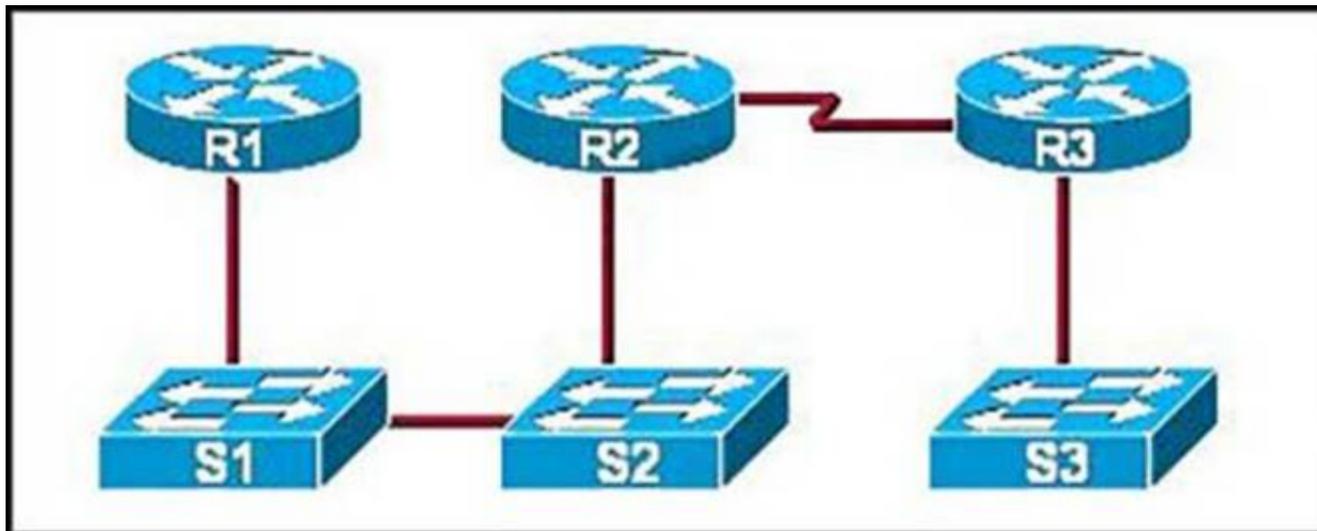
Answer:

**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 304**

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 308**

Which benefit of implementing a dual-homed WAN connection instead of a single homed connection is true?

- A. Only dual-homed connections support recursive routing
- B. Only dual-homed connections support split horizon with EIGRP
- C. Only dual-homed connections enable an individual router to tolerate the loss of a network link
- D. Only dual-homed connections support OSPF in conjunction with BGP

**Answer: C**

**NEW QUESTION 313**

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 317**

Which three options are types of slow VLAN connectivity? (Choose three.)

- A. slow broadcast domain connectivity
- B. slow routing domain connectivity
- C. slow default gateway connectivity
- D. slow application domain connectivity
- E. slow collision domain connectivity
- F. slow inter-VLAN connectivity

**Answer: ADE**

**NEW QUESTION 320**

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 322**

Which two statements about switch stacking are true? (Choose two)

- A. The stack is powered by a single power cable
- B. The switches are connected in a daisy-chain fashion
- C. The first and last switch in the stack must be connected to one another
- D. The switches are connected by crossover cables
- E. The switches must be fully meshed

**Answer:** AB

**NEW QUESTION 325**

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

- A. transferring spirt 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 updatedIOS images to Cisco switches

**Answer:** BD

**NEW QUESTION 329**

Which keyword in a NAT configuration enables the use of one outside IP address for multiple inside hosts?

- A. source
- B. static
- C. pool
- D. overload

**Answer:** D

**NEW QUESTION 333**

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 337**

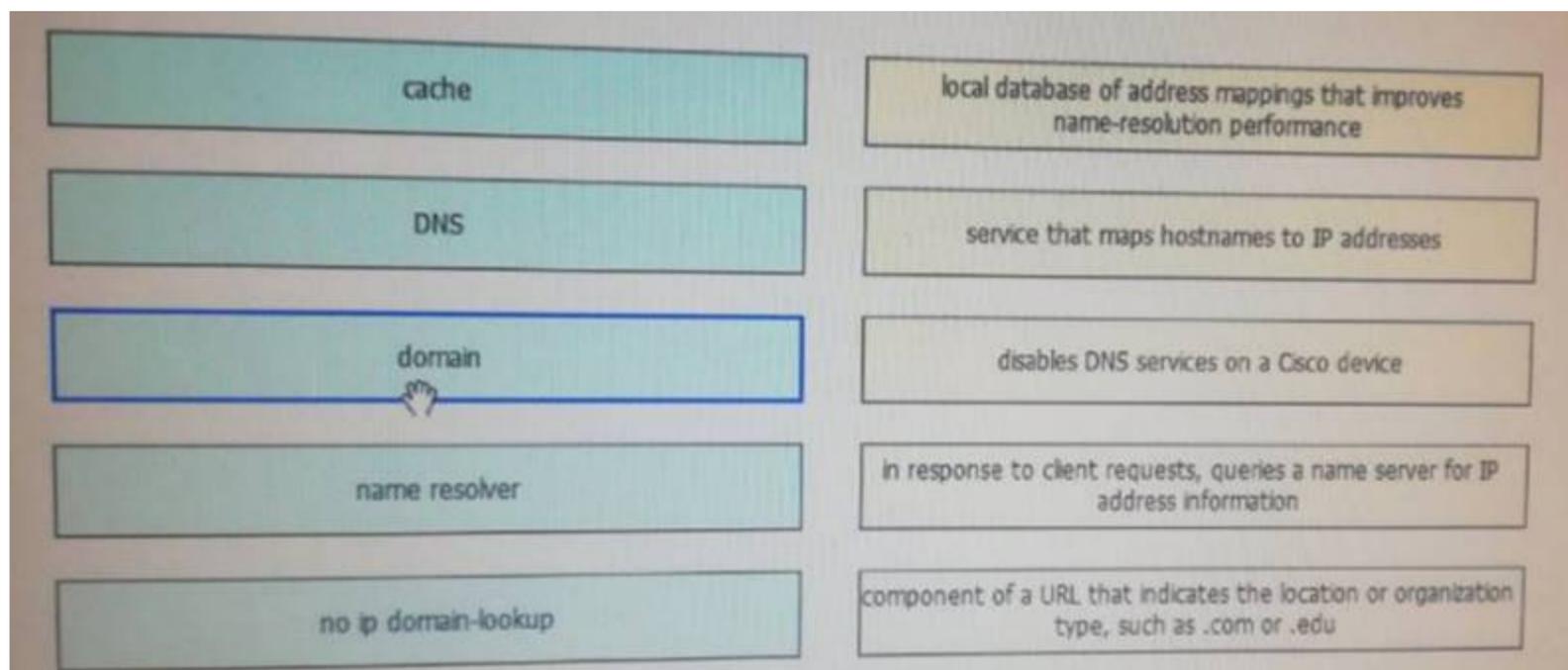
How many bits represent the network ID in IPv6?

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

**Answer:** C

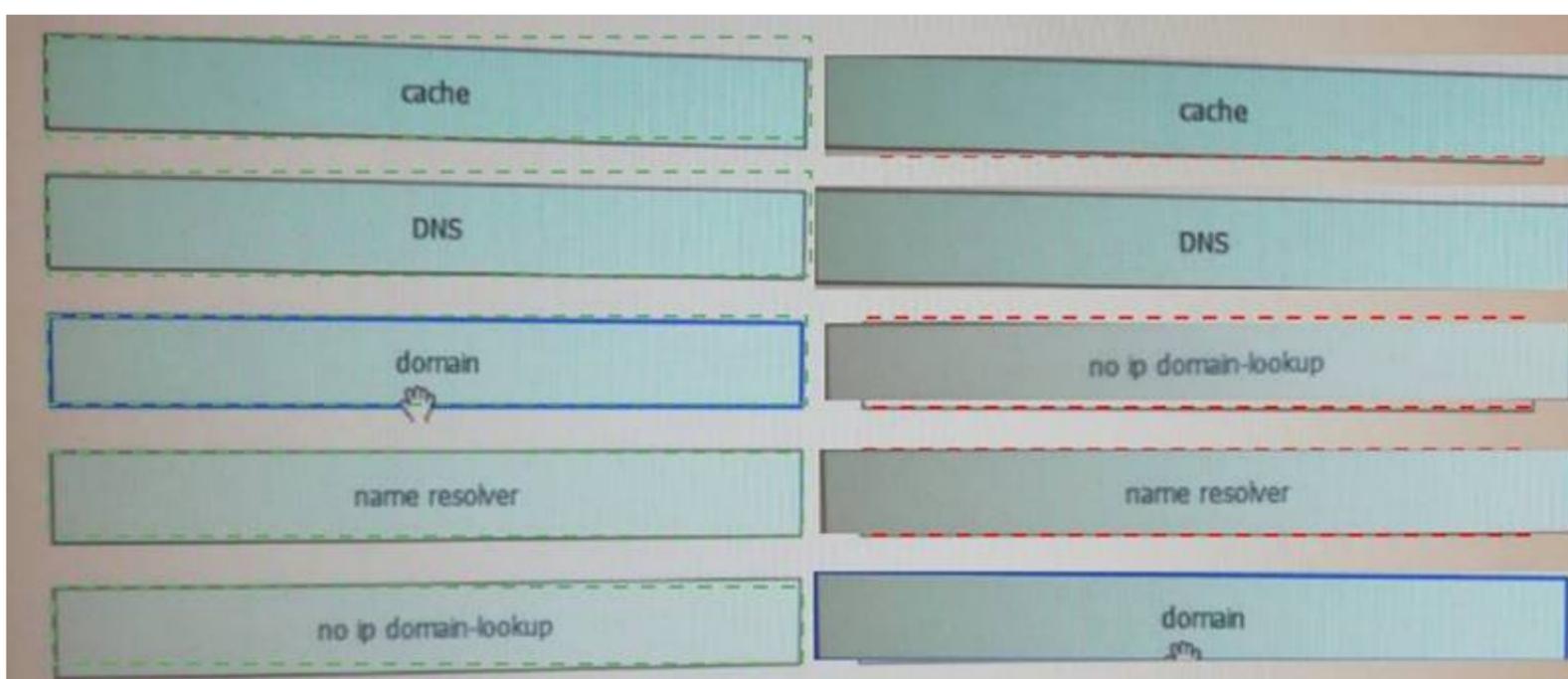
**NEW QUESTION 339**

Drag and drop the DNS lookup components from the left onto the correct functions on the right.



Answer:

Explanation:



**NEW QUESTION 343**

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

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

Answer: D

**NEW QUESTION 348**

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 350**

Central Florida Widgets recently installed a new router in their office. Complete the network installation by performing the initial router configurations and configuring R1PV2 routing using the router command line interface (CLI) on the RC.

Configure the router per the following requirements: Name of the router is R2

Enable. secret password is cisco

The password to access user EXEC mode using the console is cisco2 The password to allow telnet access to the router is cisco3

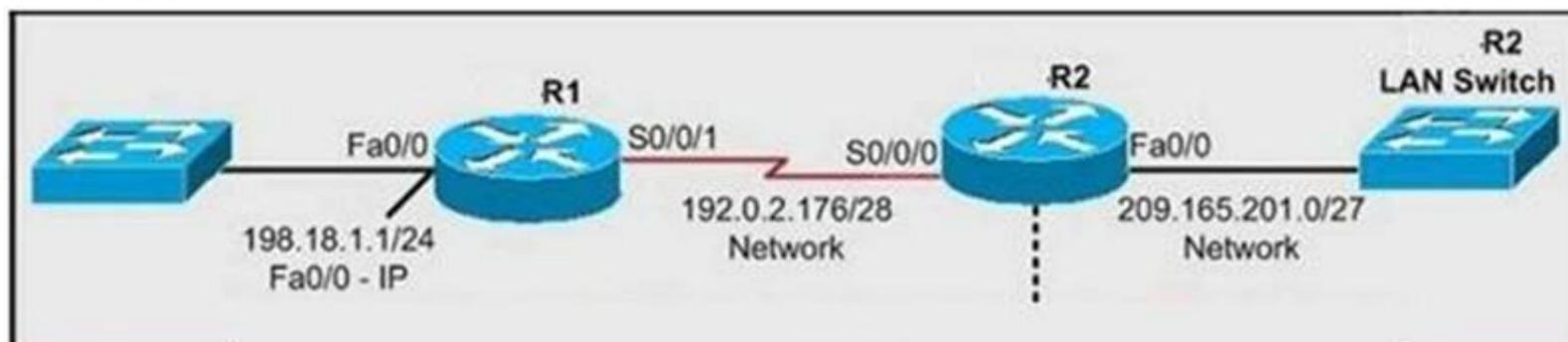
IPv4 addresses must be configured as follows:

Ethernet network 209.165.201.0/27 - router has fourth assignable host address in subnet Serial network is 192.0.2.176/28 - router has last assignable host address in the subnet. Interfaces should be enabled.

Router protocol is RIPV2 Attention:

In practical examinations, please note the following, the actual information will prevail.

1. Name of the router is xxx
2. Enable. secret password is xxx
3. Password In access user EXEC mode using the console is xxx
4. The password to allow telnet access to the router is xxx
5. IP information



**Answer:**

```

Explanation: Router>enable
Router#config terminal
Router(config)#hostname R2
R2(config)#enable secret Cisco 1
R2(config)#line console 0
R2(config-line)#password Cisco 2
R2(config-line)#exit
R2(config)#line vty 0 4
R2(config-line)#password Cisco 3
R2(config-line)#login
R2(config-line)#exit
R2(config)#interface fa0/0
R2(config-if)#ip address 209.165.201.4 255.255.255.224
R2(config)#interface s0/0/0
R2(config-if)#ip address 192.0.2.190 255.255.255.240
R2(config-if)#no shutdown
R2(config-if)#exit
R2(config)#router rip
R2(config-router)#version 2
R2(config-router)#network 209.165.201.0
R2(config-router)#network 192.0.2.176
R2(config-router)#end
R2#copy run start
    
```

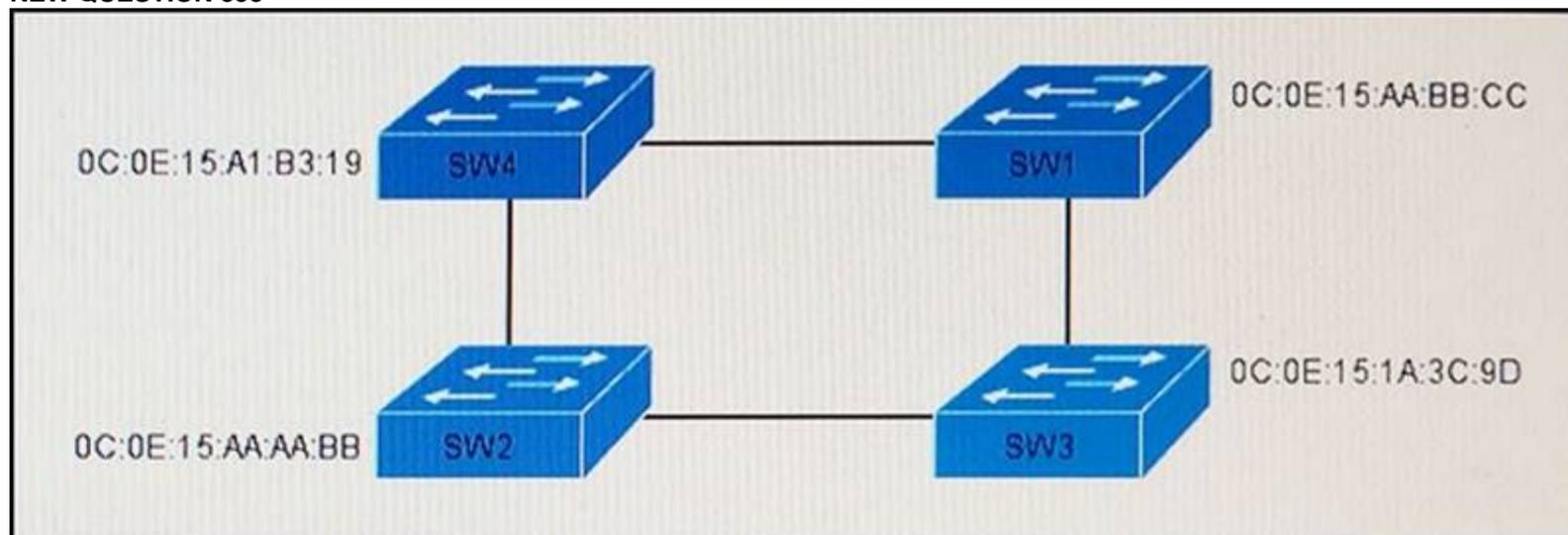
**NEW QUESTION 354**

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 358**



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 360**

Drag and drop the characteristics of a cloud environment from the left onto the correct examples on the right

multitenancy	One or more clients can be hosted with the same physical or virtual infrastructure.
on-demand	Resources can be added and removed as needed to support current workload and tasks.
resiliency	Tasks can be migrated to different physical locations to increase efficiency or reduce cost.
scalability	Resources are dedicated only when necessary instead of on a permanent basis.
workload movement	Tasks and data residing on a failed server can be seamlessly migrated to other physical resources.

Answer:

Explanation:

multitenancy	multitenancy
on-demand	scalability
resiliency	resiliency
scalability	on-demand
workload movement	workload movement

**NEW QUESTION 365**

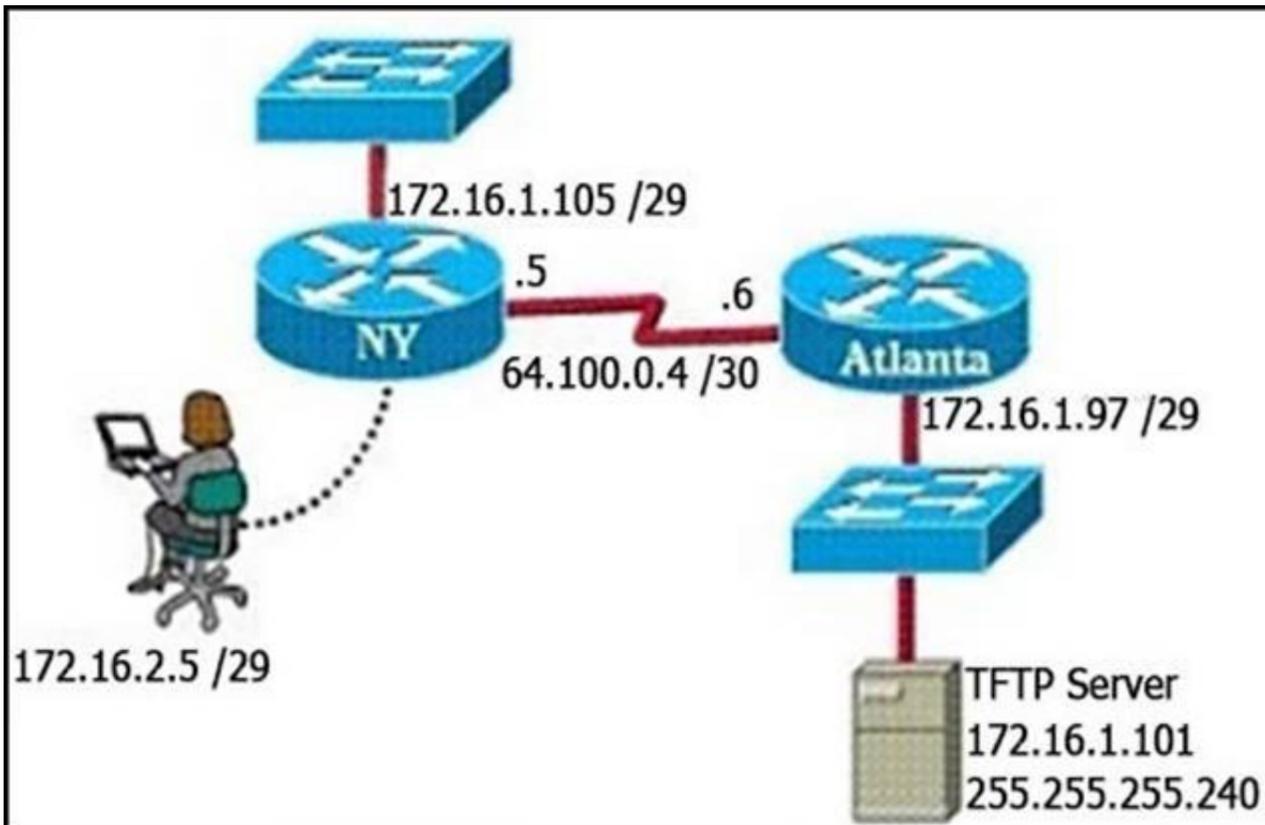
Which option must occur before a workstation can exchange HTTP packets with a web server?

- A. An ICMP connection must be established between the workstation and the web server.
- B. A UDP connection must be established between the workstation and its default gateway.
- C. A TCP connection must be established between the workstation and its default gateway.
- D. A UDP connection must be established between the workstation and the web server.
- E. An ICMP connection must be established between the workstation and its default gateway.
- F. A TCP connection must be established between the workstation and the web server.

Answer: F

**NEW QUESTION 370**

Refer to the exhibit.



A TFTP server has recently been instated in the Atlanta office. The network administrator is located in the NY office and has made a console connection to the NY router. After establishing the connection they are unable to backup the configuration file and iOS of the NY router to the TFTP server. What is the cause of this problem?

- A. The TFTP server has an incorrect subnet mask.
- B. The TFTP server has an incorrect IP address.
- C. The network administrator computer has an incorrect IP address.
- D. The NY router has an incorrect subnet mask.

Answer: A

NEW QUESTION 373

```

Branch# ping 192.168.2.167

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.2.167, timeout is 2 seconds:
..!!!
Success rate is 60 percent (3/5), round-trip min/avg/max = 1/2/4 ms

Branch# ping 192.168.2.167

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.2.167, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/1/1 ms
Branch#
    
```

Refer to the exhibit. The network administrator is testing connectivity from the branch router to the newly installed application server. Which reason is the most likely for the first ping having a success rate of only 60 percent?

- A. The branch router LAN interface should be upgraded to FastEthernet.
- B. The branch router had to resolve the application server MAC address.
- C. The network is likely to be congested, with the result that packets are being intermittently dropped.
- D. There is a short delay while NAT translates the server IP address.

Answer: B

#### 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 377

Which IPsec security protocol should be used when confidentiality is required?

- A. MD5
- B. PSK
- C. AH
- D. ESP

**Answer:** D

#### NEW QUESTION 379

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

- A. It can transmit data at a rate higher than the path capacity
- B. It uses a three-way handshake to ensure that traffic is transmitted properly
- C. It guarantees packet delivery
- D. it includes protection against duplicate packets
- E. it can be used for multicast and broadcast traffic

**Answer:** AE

#### NEW QUESTION 384

Which command do use we 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 387

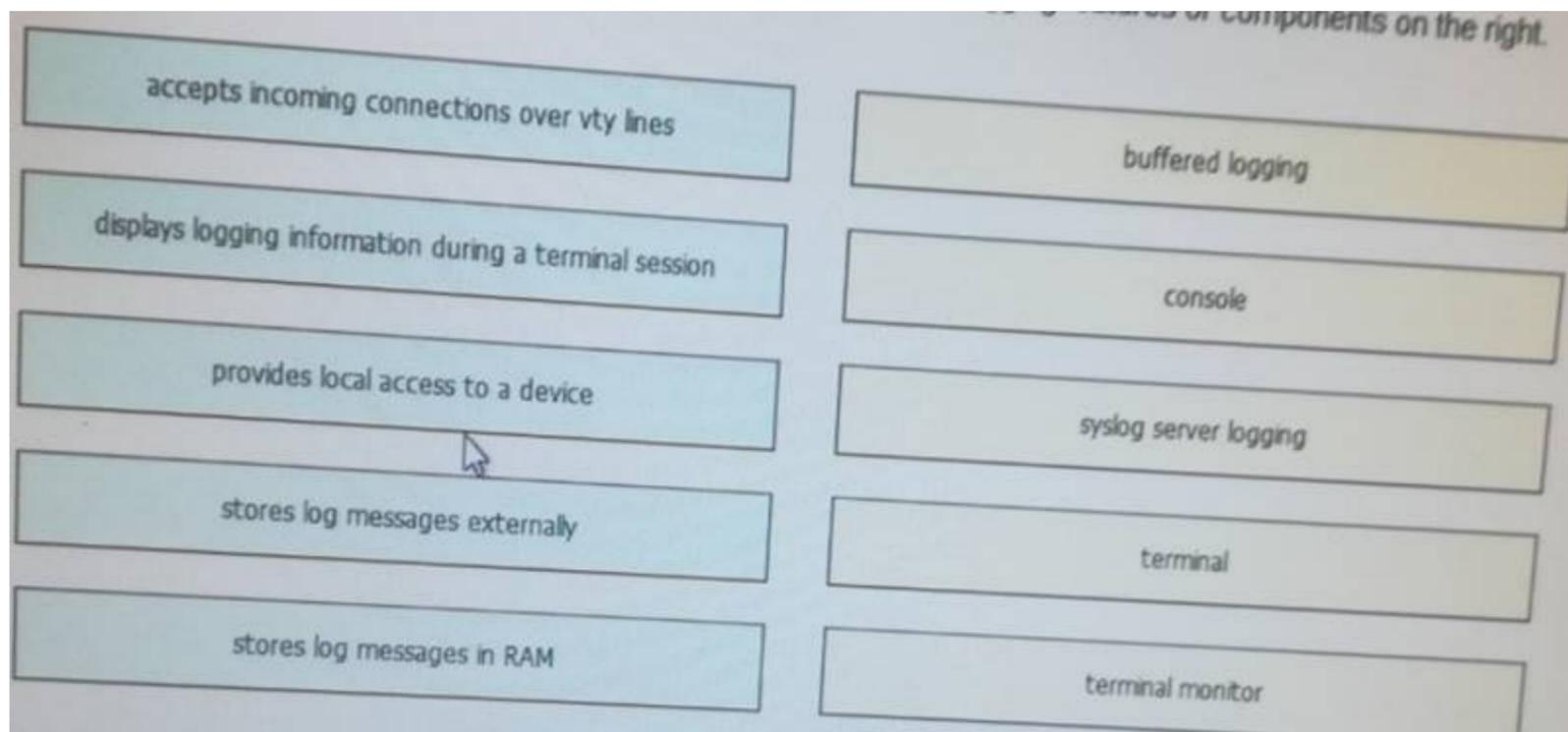
Which command can you enter to configure an IPv6 static route?

- A. router(config)#ipv6 route FE80:0202::/32 serial 0/1 1
- B. router(config)#ipv6 route FE80:0202::/32 serial 0/1 201
- C. router(config)#ipv6 route ::/0 serial 0/1
- D. router(config)#ipv6 route static resolve default

**Answer:** B

#### NEW QUESTION 391

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 393**

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 398**

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 399**

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 404**

On which OSI layer does a VLAN operate?

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

**Answer: B**

**NEW QUESTION 405**

Which subnet address is for the IP address 172.19.20.23/28?

- A. 172.19.20.20
- B. 172.19.20.0
- C. 172.19.20.32
- D. 172.19.20.15
- E. 172.19.20.16

Answer: E

**NEW QUESTION 408**

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

The interface shows six descriptions on the left:

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

On the right, there are two categories:

- TCP**: Three empty boxes.
- UDP**: Three empty boxes.

Answer:

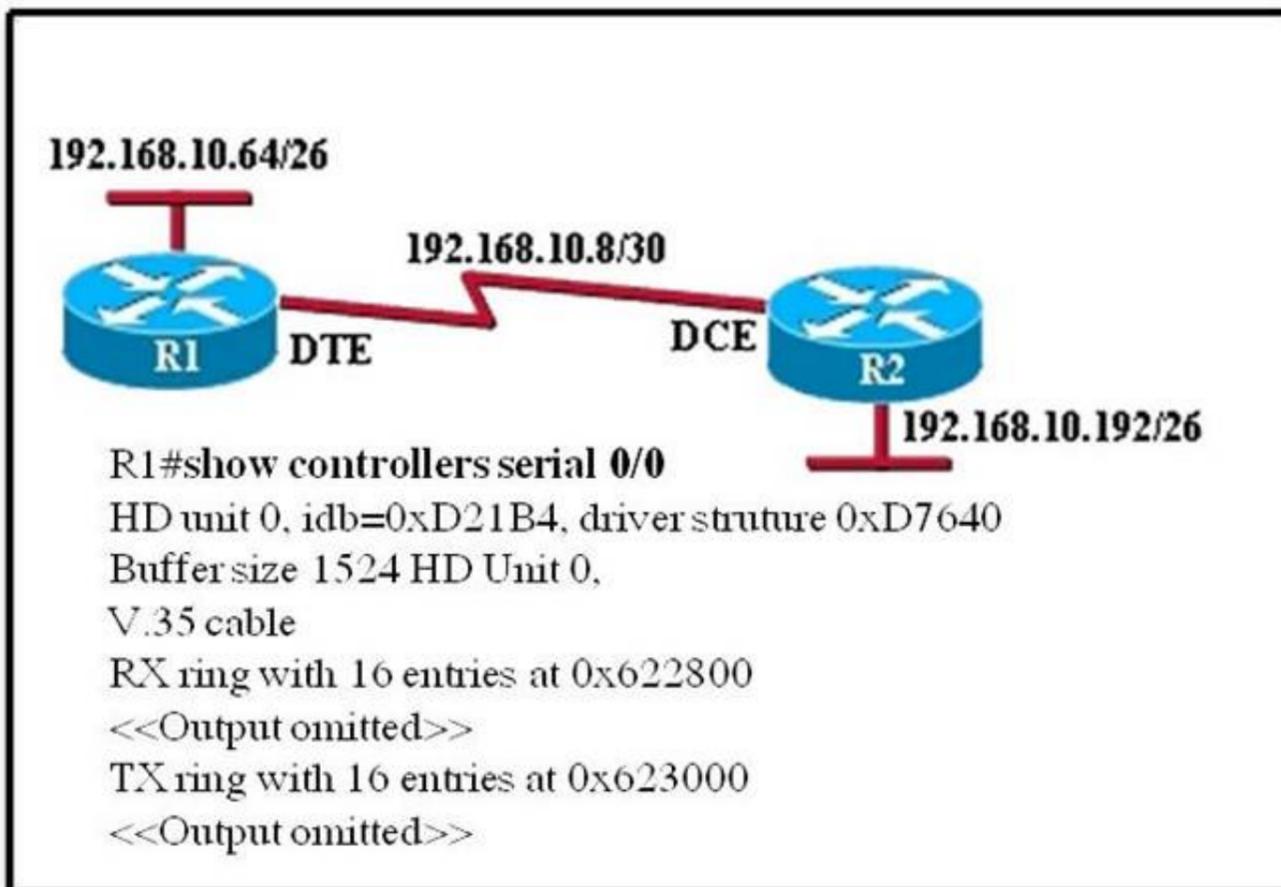
Explanation:

The correct placement of descriptions is as follows:

- TCP** (Top to Bottom):
  - It sends transmissions in sequence.
  - It uses a lower transmission rate to ensure reliability.
  - It transmits packets individually.
- UDP** (Top to Bottom):
  - It transmits packets as a stream.
  - It uses a higher transmission rate to support latency-sensitive applications.
  - Transmissions include an 8-byte header.

**NEW QUESTION 409**





An administrator cannot connect from R1 to R2. To troubleshoot this problem, the administrator has entered the command shown in the exhibit. Based on the output shown, what could be the problem?

- A. The serial interface is configured for the wrong frame size.
- B. The serial interface does not have a cable attached.
- C. The serial interface has the wrong type of cable attached.
- D. The serial interface has a full buffer.
- E. The serial interface is configured for half duplex.

**Answer:** C

**NEW QUESTION 418**

Which task must you perform to enable an IOS device to use DNS services?

- A. Configure manual bindings
- B. Configure a name server
- C. Configure the relay agent information option.
- D. Configure a relay agent information reforwarding policy

**Answer:** B

**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-)

**NEW QUESTION 419**

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 421**

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 422**

In which two ways can you prevent recursive routing in a tunneled environment? (Choose two)

- A. Configure routes through the tunnel with a lower metric than other routes.

- B. Configure route filtering to prevent the tunnel endpoints from learning each other through the tunnel.
- C. Enable QoS on the link.
- D. Configure routes through the tunnel with a higher metric than other routes.
- E. configure GRE keepalives on the tunnel interface.

Answer: BD

**NEW QUESTION 424**

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 426**

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

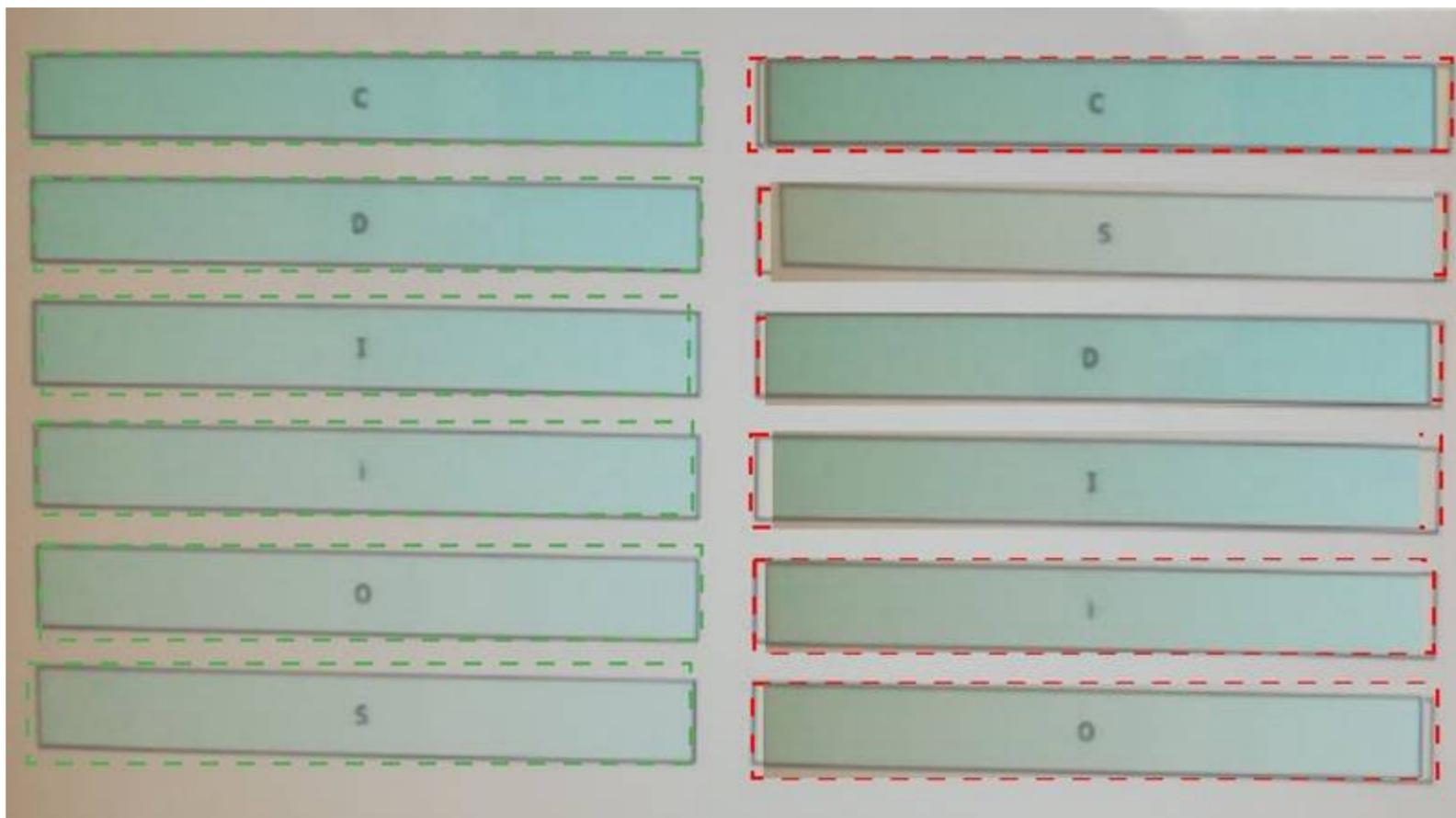
**NEW QUESTION 427**

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

C	directly connected network
D	manually configured static route
I	route learned dynamically by EIGRP
i	route learned dynamically by IGRP
O	route learned dynamically by IS-IS
S	route learned dynamically by OSPF

Answer:

Explanation:



**NEW QUESTION 428**

On a Cisco switch, which protocol determines if an attached VoIP phone is from Cisco or from another vendor?

- A. CDP
- B. RTP
- C. UDP
- D. TCP

**Answer:** A

**NEW QUESTION 432**

At which layer of the OSI model does the protocol that provides the information that is displayed by the show cdp neighbors command operate?

- A. data link
- B. application
- C. network
- D. transport
- E. physical

**Answer:** A

**NEW QUESTION 437**

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 440**

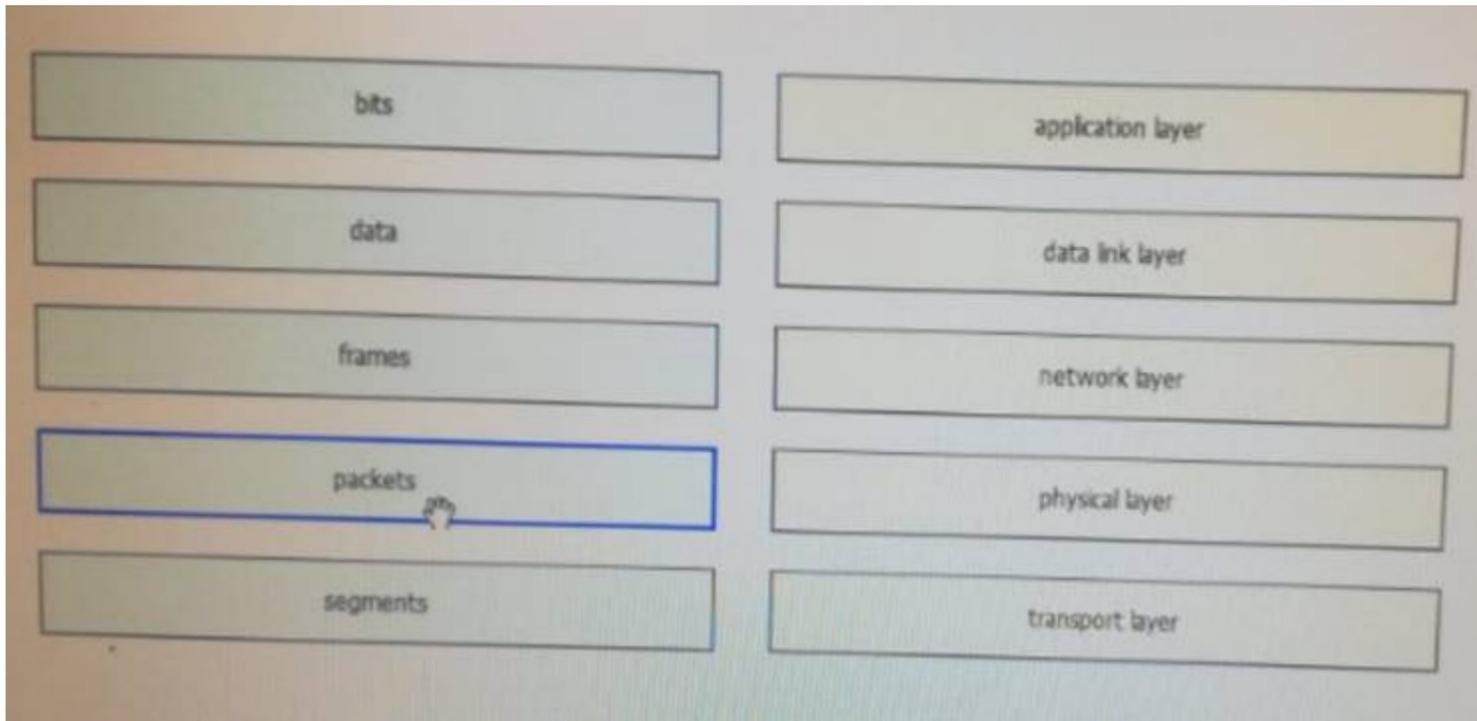
Which technique can you use to route IPv6 traffic over an IPv4 infrastructure?

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

**Answer:** B

**NEW QUESTION 443**

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 446**

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 449**

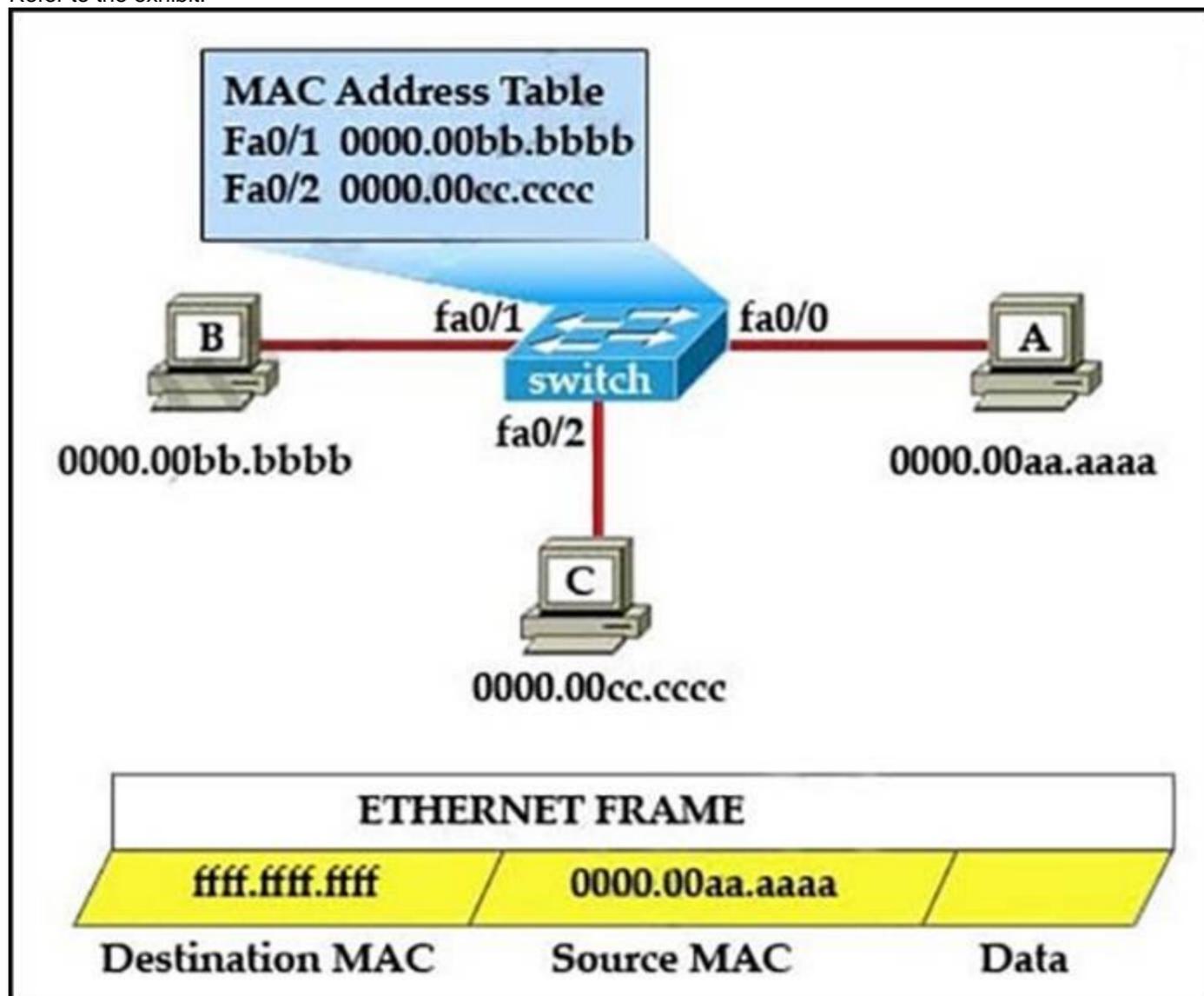
From which PPPoE server configuration does a PPPoE client get an IP address?

- A. AAA authentication
- B. DHCP
- C. dialer interface
- D. virtual-template interface

Answer: D

**NEW QUESTION 453**

Refer to the exhibit.



The MAC address table is shown in its entirety. The Ethernet frame that is shown arrives at the switch. What two operations will the switch perform when it receives this frame? (Choose two.)

- A. The switch will not forward a frame with this destination MAC address.
- B. The frame will be forwarded out of all the ports on the switch.
- C. The MAC address of ffff.ffff.ffff will be added to the MAC address table.
- D. The frame will be forwarded out of all the active switch ports except for port fa0/0.
- E. The MAC address of 0000.00aa.aaaa will be added to the MAC Address Table.
- F. The frame will be forwarded out of fa0/0 and fa0/1 only.

**Answer:** DE

**NEW QUESTION 457**

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 461**

Which two of these functions do routers perform on packets? (Choose two.)

- A. update the Layer 3 headers of outbound packets so that the packets are properly directed to valid next hops
- B. update the Layer 2 headers of outbound packets with the MAC addresses of the next hops
- C. examine the Layer 3 headers of inbound packets and use that information to determine the complete paths along which the packets will be routed to their ultimate destinations
- D. examine the Layer 3 headers of inbound packets and use that information to determine the next hops for the packets
- E. examine the Layer 2 headers of inbound packets and use that information to determine the next hops for the packets
- F. update the Layer 3 headers of outbound packets so that the packets are properly directed to their ultimate destinations

**Answer:** BD

**NEW QUESTION 463**

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 466**

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 467**

Which statement about NTP is true?

- A. The default authentication key number is 1.
- B. The default source address of an NTP message is the interface connected to the next-hop for the server peer address.
- C. The default stratum number is 5.
- D. Each device is enabled as a server by default and propagates NTP messages to all peers on its default LAN.

**Answer:** B

**NEW QUESTION 471**

In which circumstance is static routing most useful?

- A. on a stub network
- B. on a network with frequent routing changes
- 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 475**

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 476

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 479

Which two pieces of information can be shared with LLDP TLVs? (Choose two)

- A. device management address
- B. device type
- C. spanning-tree topology
- D. routing configuration
- E. access-list configuration

**Answer:** AB

**Explanation:** TLV advertises a single type of information such as its device ID, type or management addresses.

#### NEW QUESTION 480

Which statement about using MPLS for WAN connectivity is true?

- A. it cannot be deployed using a single carrier.
- B. It can be deployed in redundant and nonredundant topologies.
- C. It can be deployed using LAN aggregation.
- D. It must be deployed in a redundant topology.

**Answer:** A

#### NEW QUESTION 483

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 487

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 491

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 493

Which feature can you use to restrict SNMP queries to a specific OID tree?

- A. server group
- B. a community

- C. a view record
- D. an access group

Answer: C

**NEW QUESTION 495**

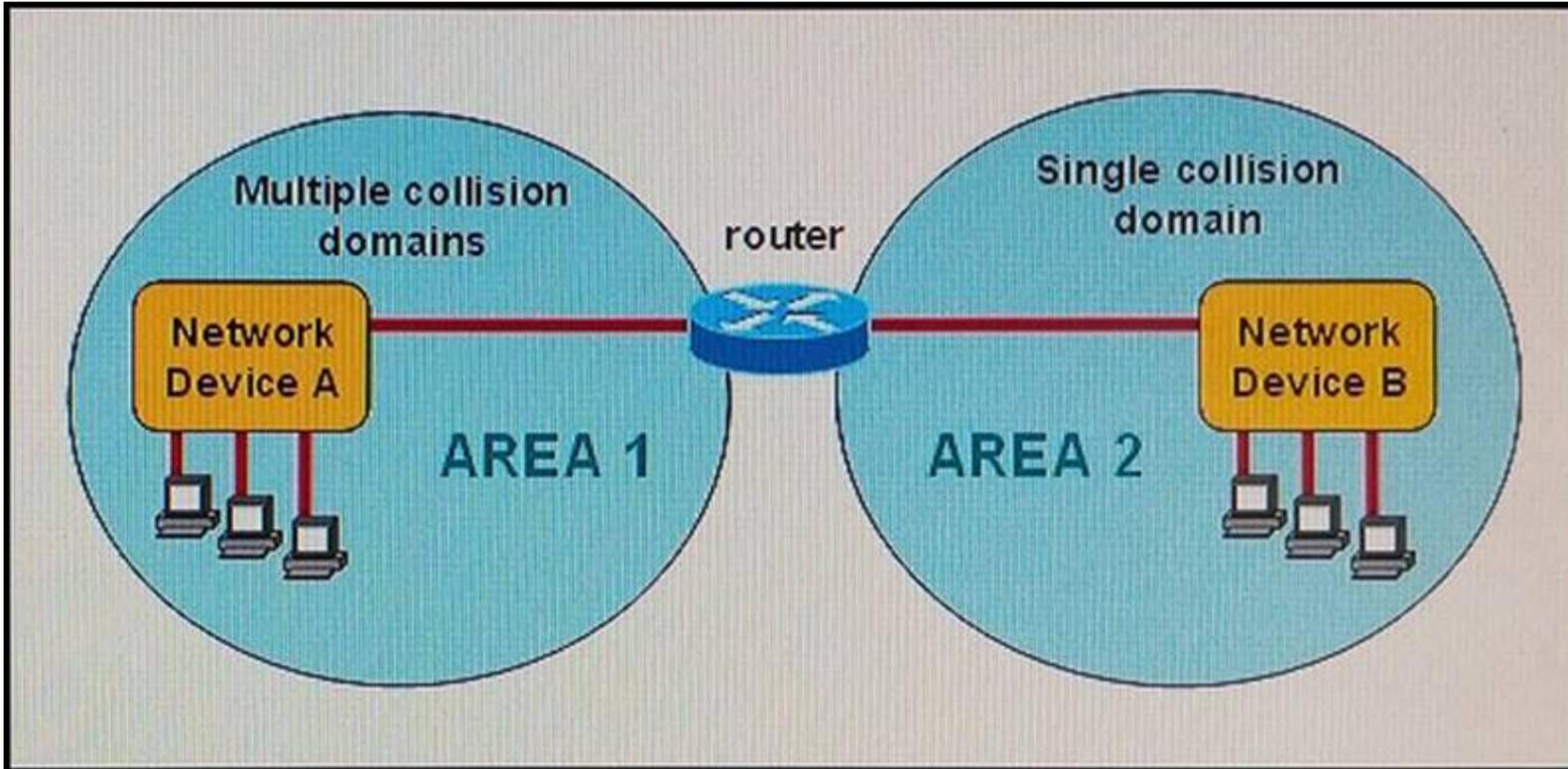
Which statement about the default switch configuration for remote access managements is true?

- A. The system name is set to Cisco.
- B. The Telnet password is set to cisco.
- C. No default gateway is defined.
- D. One IP address is preconfigured.

Answer: C

**NEW QUESTION 500**

Refer to the exhibit.



A network has been planned as shown. Which three statements accurately describe the areas and devices in the network plan? (Choose three.)

- A. Area 2 contains a Layer 2 device.
- B. Network Device B is a hub.
- C. Network Device A is a hub.
- D. Network Device A is a switch.
- E. Area 1 contains a Layer 2 device.
- F. Network Device B is a switch.

Answer: BDE

**NEW QUESTION 503**

Host	MAC Address	Port
A	00-0A-8A-47-E6-12	0/5
D	01-00-CD-22-03-14	0/9
B	01-1B-25-AB-32-E8	0/2

Refer to the topology and switching table shown in the graphic. Host B sends a frame to Host C. Which option describes what the switch will do with the frame?

- A. send an ICMP Host Unreachable message to Host B
- B. return the frame to Host B
- C. drop the frame

- D. send the frame out all ports except port 0/2
- E. record the destination MAC address in the switching table and send the frame directly to Host C
- F. send an ARP request for Host C

**Answer:** D

#### NEW QUESTION 506

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 Cisco Express Forwarding and then create an access list that uses the log keyword, the packets that match the access list are not Cisco Express Forwarding switched. They are process switched. Logging disables Cisco Express Forwarding.

#### NEW QUESTION 509

Which sequence begins a unique local IPv6 address in binary notation?

- A. 11111110
- B. 11111111
- C. 00000000
- D. 1111100

**Answer:** A

**Explanation:** Topic 3, New Pool Exam C

#### NEW QUESTION 512

Which of the following correctly describe steps in the OSI data encapsulation process? (Choose two)

- A. The transport layer divides a data stream into segments and may add reliability and flow control information.
- B. The data link layer adds physical source and destination addresses and an FCS to the segment.
- C. Packets are created when the network layer encapsulates a frame with source and destination host addresses and protocol-related control information.
- D. Packets are created when the network layer adds Layer 3 addresses and control information to a segment.
- E. The presentation layer translates bits into voltages for transmission across the physical link.

**Answer:** AD

#### Explanation:

The transport layer segments data into smaller pieces for transport. Each segment is assigned a sequence number, so that the receiving device can reassemble the data on arrival.

The transport layer also use flow control to maximize the transfer rate while minimizing the requirements to retransmit. For example, in TCP, basic flow control is implemented by acknowledgment by the receiver of the receipt of data; the sender waits for this acknowledgment before sending the next part.

#### NEW QUESTION 516

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.

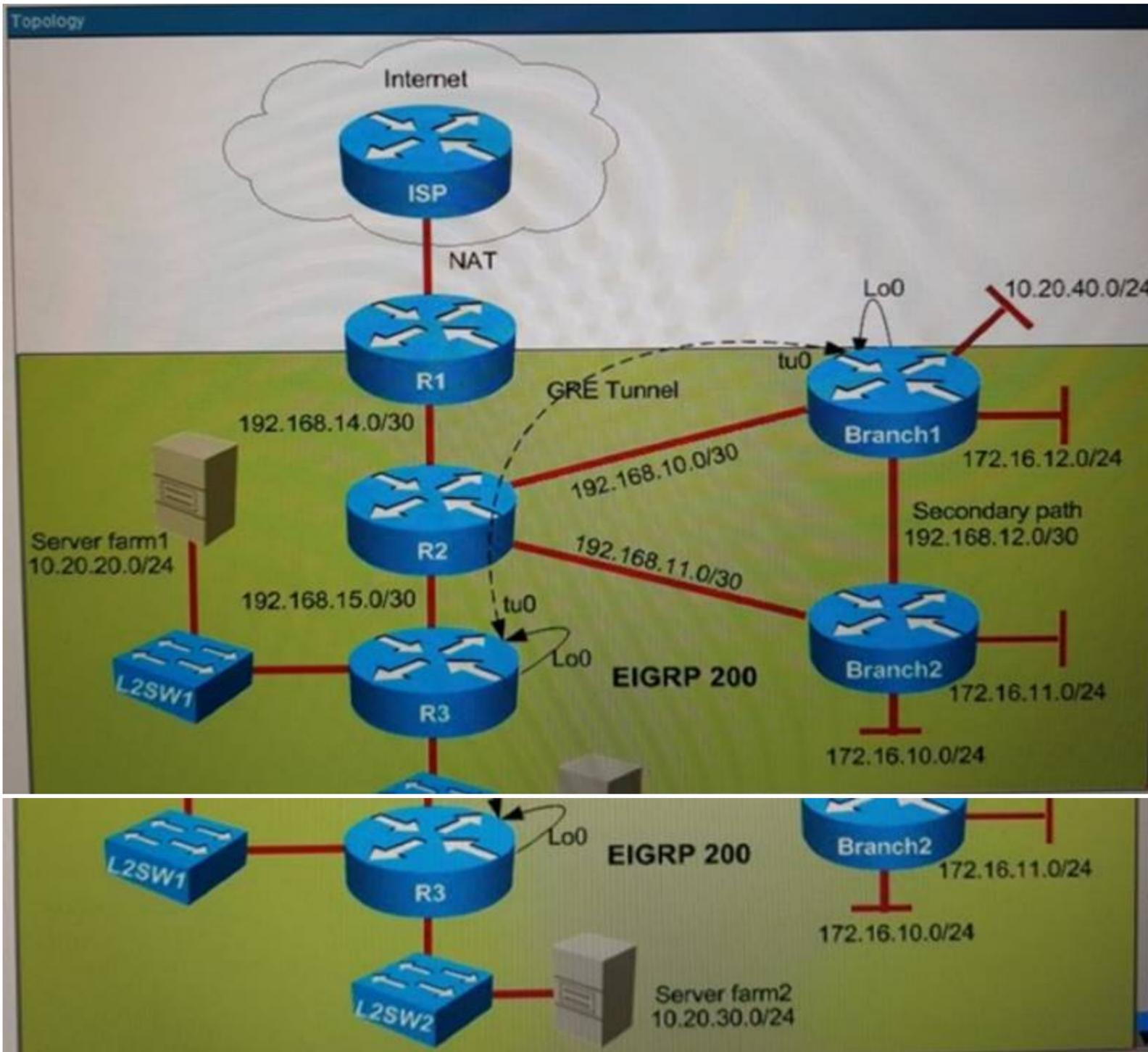
- Router R1 connects the main office to the Internet and routers R2 and R3 are internal routers
- Routers Branch 1 and Branch2 connect to router R2 in the main office.
- Users from the Branch1 LAN network 10.20.40.0/24 are expected to perform testing of the application that is hosted on the servers in 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 main 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 520

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

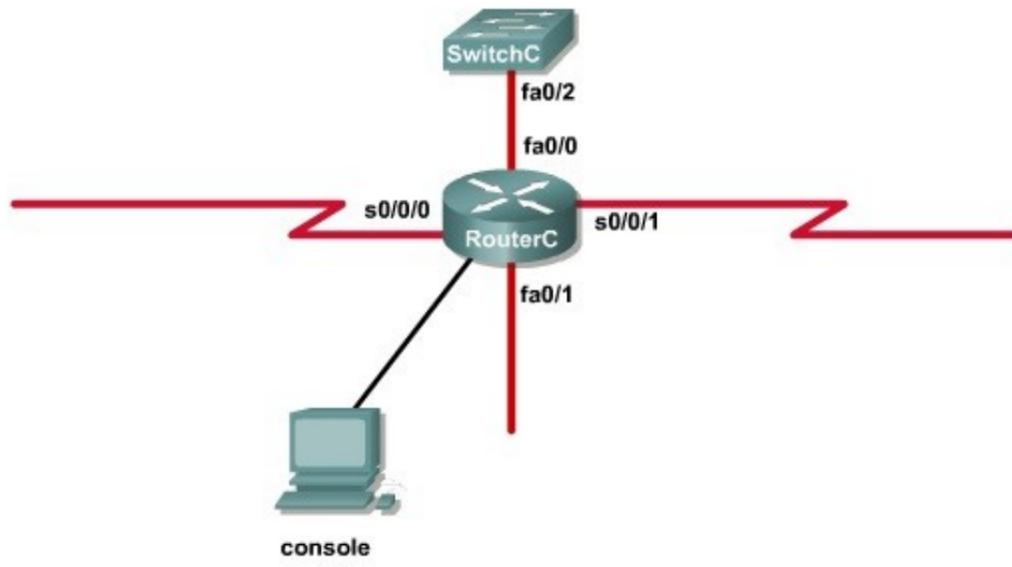
#### NEW QUESTION 524

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.

Topology



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>
```

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:** D

**Explanation:** From the output of access-list 114: access-list 114 permit ip 10.4.4.0 0.0.0.255 any we can easily understand that this access list allows all traffic (ip) from 10.4.4.0/24 network

**NEW QUESTION 529**

Which two characteristics of an ICMP echo based IP SLA are true ? (choose two)

- A. it requires a remote device to log and maintain collected data
- B. it can use RSPAN to report network statistics to a designated remote port
- C. it aggregates traffic statistics for reporting on a configurable basis
- D. it generates continuous traffic to monitor network performance
- E. it measures traffic to determine the reliability of a connection from a cisco router to a designated end device.

**Answer:** AE

**NEW QUESTION 534**

What value is primarily used to determine which port becomes the root port on each nonroot switch in a spanning-tree topology?

- A. path cost
- B. lowest port MAC address
- C. VTP revision number
- D. highest port priority number
- E. port priority number and MAC address

**Answer:** A

**Explanation:** The path cost to the root bridge is the most important value to determine which port will become the root port on each non-root switch. In particular, the port with lowest cost to the root bridge will become root port (on non-root switch).

**NEW QUESTION 535**

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.

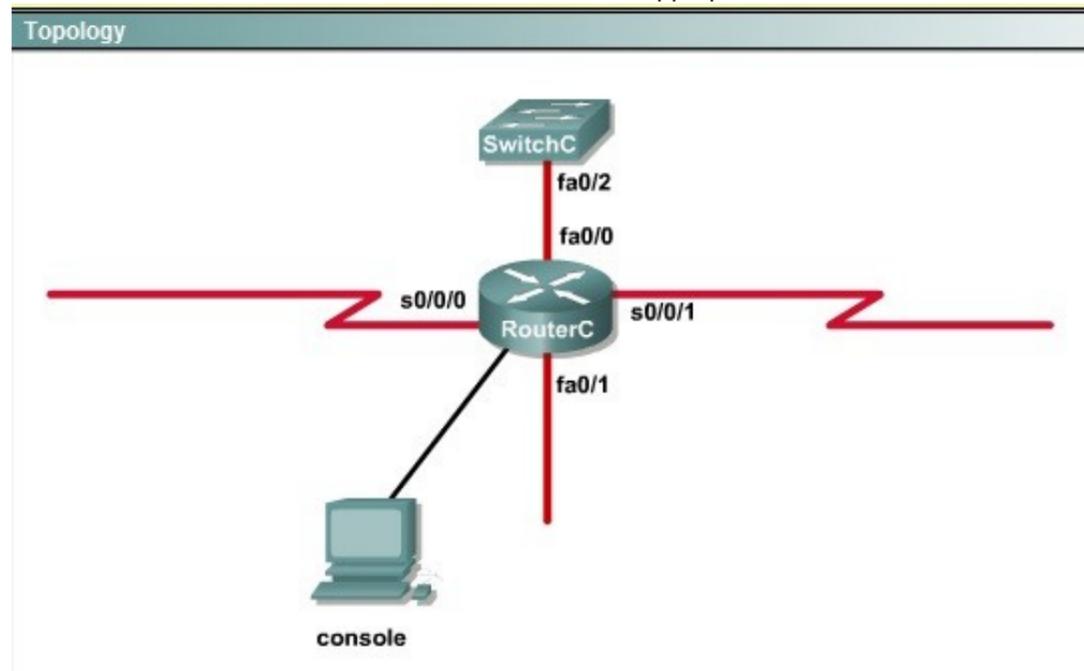
**Answer:** BCD

**NEW QUESTION 540**

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 541

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 546**

Which type of address is the public IP address of a NAT device?

- A. outside global
- B. outside local
- C. inside global
- D. inside local
- E. outside public
- F. inside public

**Answer: C**

**NEW QUESTION 551**

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

best effort	service level that provides basic connectivity without differentiation
CAR	service level that provides preferred handling
hard QoS	service level that provides reserved network resources
NBAR	identification tool ideal for handling web applications
PBR	polices traffic based on its bandwidth allocation
soft QoS	uses route maps to match traffic criteria

**Answer:**

**Explanation:** Best effort = service level that provides basic connectivity without differentiation  
 CAR = Polices traffic based on its bandwidth allocation  
 Hard QoS = service level that provides reserved network resources  
 NBAR = identification tool ideal for handling web application  
 PBR = uses route maps to match traffic criteria  
 Soft QoS = service level that provides preferred handling  
[http://docwiki.cisco.com/wiki/Quality\\_of\\_Service\\_Networking#CAR:\\_Setting\\_IP\\_Precedence](http://docwiki.cisco.com/wiki/Quality_of_Service_Networking#CAR:_Setting_IP_Precedence)

**NEW QUESTION 556**

Which two address are defined as private ip addresses ? (Choose two.)

- A. 192.169.32.10
- B. 10.172.76.200
- C. 172.15.2.250
- D. 12.17.1.20
- E. 172.31.255.100

**Answer: BE**

**NEW QUESTION 557**

Drag and Drop the PPPoE message types from the left into the sequence in which PPPoE messages are sent on the right.

PADI	1
PADO	2
PADR	3
PADS	4

Answer:

Explanation: PADI PADO PADR PADS

**NEW QUESTION 560**

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

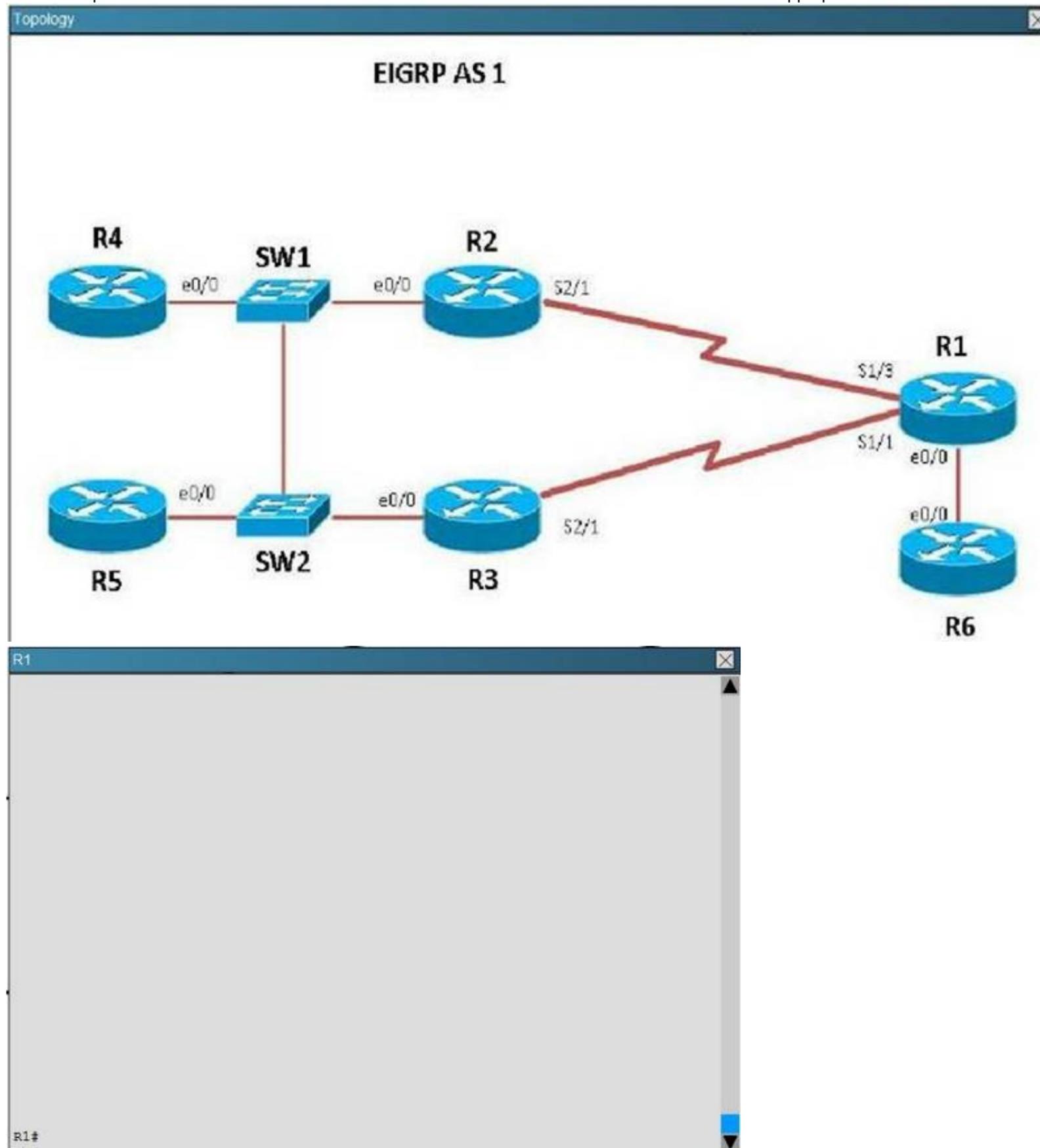
**NEW QUESTION 561**

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.



R2

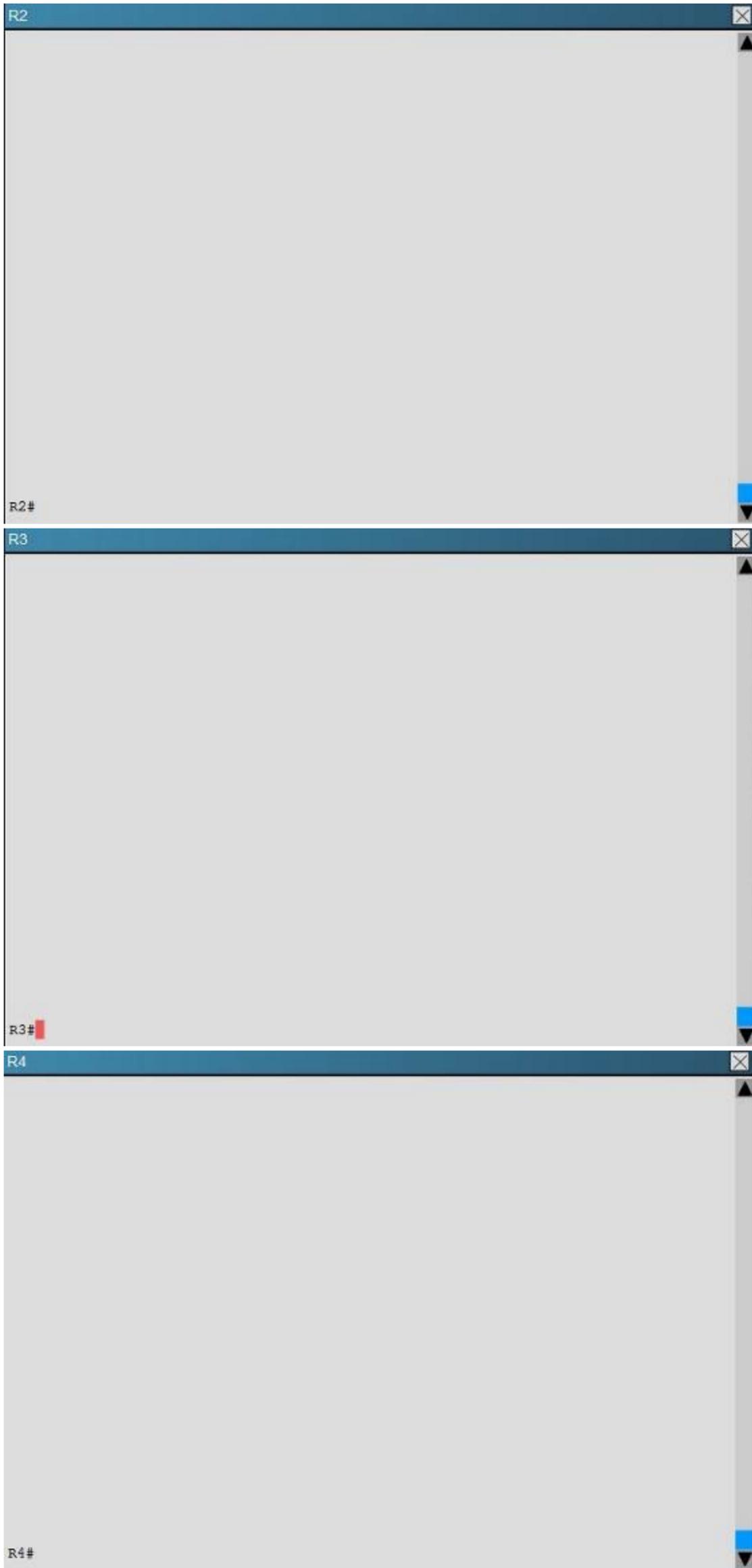
R2#

R3

R3#

R4

R4#



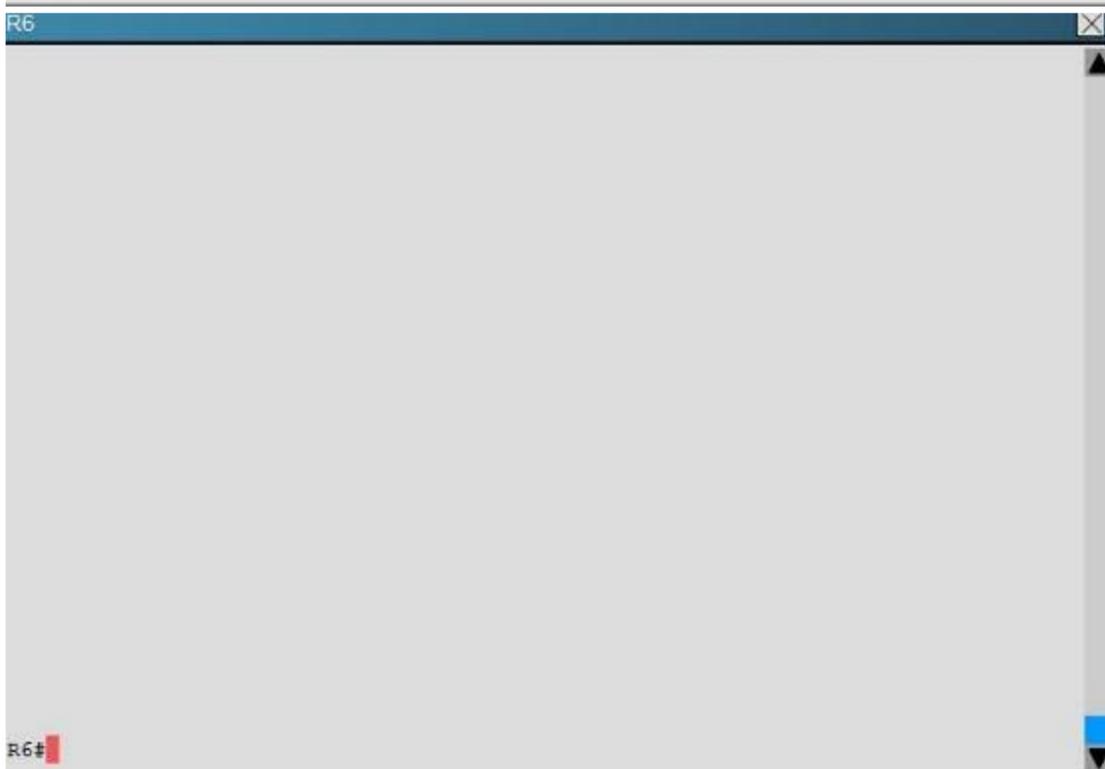
R5



R5#

This is a terminal window titled 'R5'. The main area is empty and grey. A cursor is visible at the bottom left, showing 'R5#'.

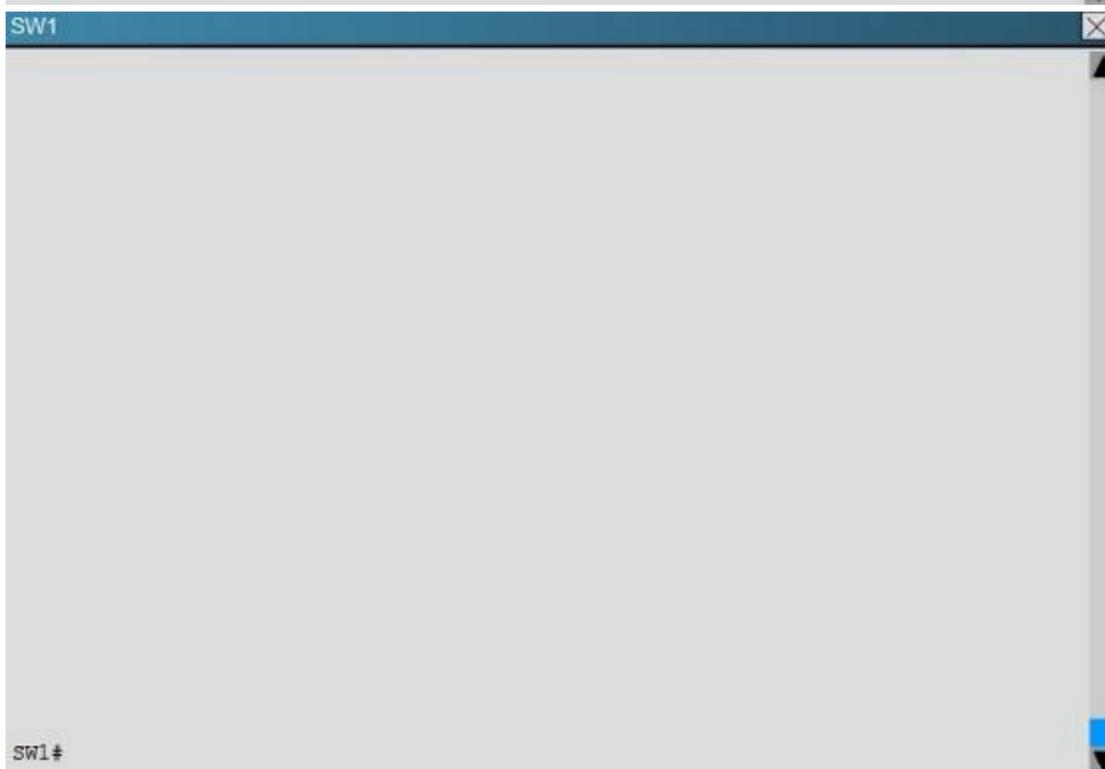
R6



R6#

This is a terminal window titled 'R6'. The main area is empty and grey. A cursor is visible at the bottom left, showing 'R6#'.

SW1



SW1#

This is a terminal window titled 'SW1'. The main area is empty and grey. A cursor is visible at the bottom left, showing 'SW1#'.



The loopback interfaces on R4 with the IP addresses of 10.4.4.4/32, 10.4.4.5/32, and 10.4.4.6/32 are not appearing in the routing table of R5. Why are the interfaces missing?

- A. The interfaces are shutdown, so they are not being advertised.
- B. R4 has been incorrectly configured to be in another AS, so it does not peer with R5.
- C. Automatic summarization is enabled, so only the 10.0.0.0 network is displayed.
- D. The loopback addresses haven't been advertised, and the network command is missing on R4.

**Answer:** B

**Explanation:** For an EIGRP neighbor to form, the following must match:

- Neighbors must be in the same subnet
- K values
- AS numbers
- Authentication method and key strings

Here, we see that R4 is configured for EIGRP AS 2, when it should be AS 1.

R4	R5
<pre>! interface Ethernet0/2  no ip address  shutdown ! interface Ethernet0/3  no ip address  shutdown ! ! router eigrp 2  network 10.4.4.4 0.0.0.0  network 10.4.4.5 0.0.0.0  network 10.4.4.6 0.0.0.0  network 192.168.123.0 ! ip forward-protocol nd ! ! no ip http server no ip http secure-server ! ! ! --- More (18) ---</pre>	<pre>interface Ethernet0/2  no ip address  shutdown ! interface Ethernet0/3  no ip address  shutdown ! ! router eigrp 1  network 10.5.5.5 0.0.0.0  network 10.5.5.55 0.0.0.0  network 10.10.10.0 0.0.0.255  network 192.168.123.0 ! ip forward-protocol nd ! ! no ip http server no ip http secure-server ! ! ! control-plane</pre>

**NEW QUESTION 562**

Scenario:

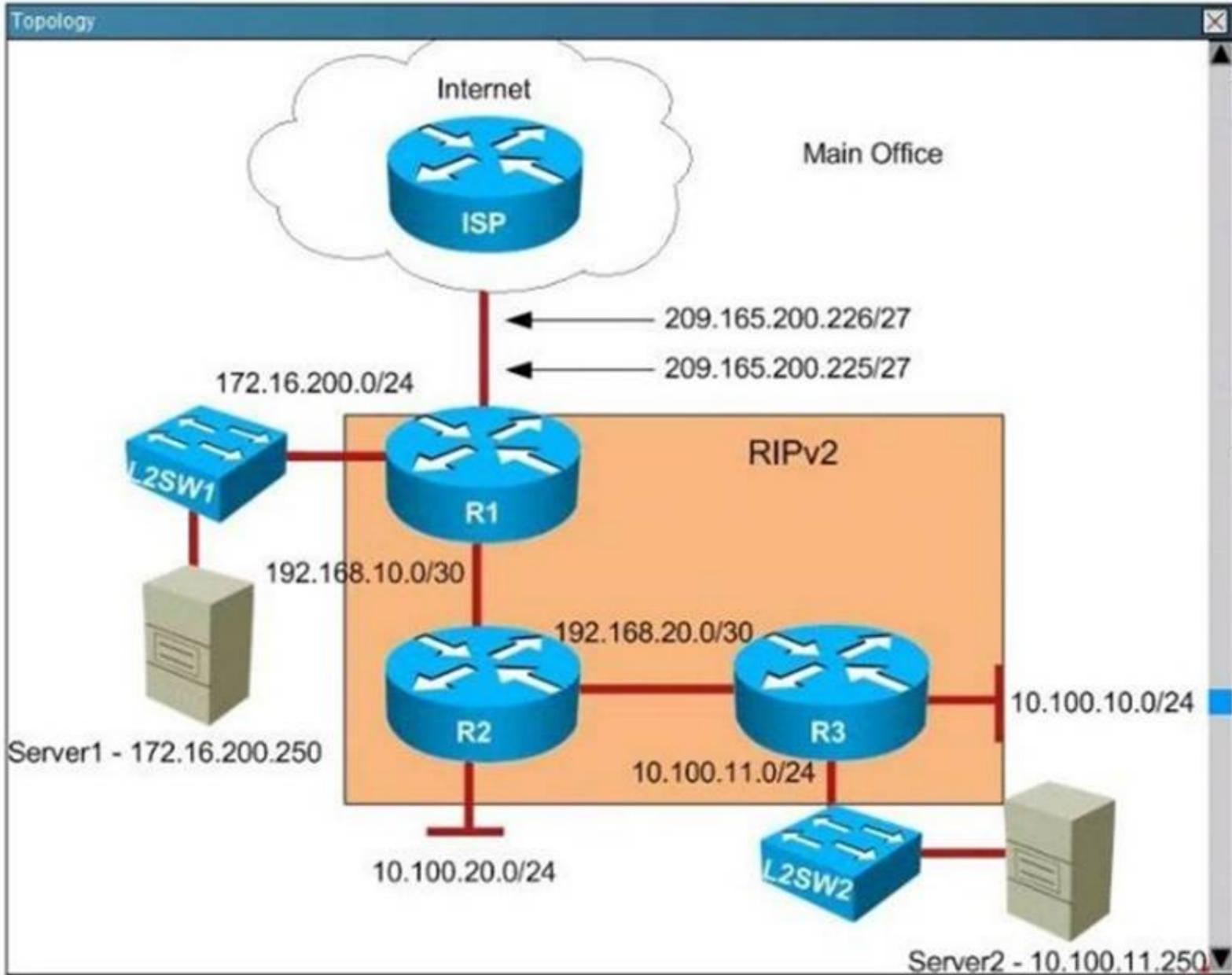
You are a junior network engineer for a financial company, and the main office network is experiencing network issues. Troubleshoot the network issues.

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#
    
```

Users complain that they are unable to reach internet sites. You are troubleshooting internet connectivity problem at main office. Which statement correctly identifies the problem on Router R1?

- A. Interesting traffic for NAT ACL is incorrectly configured.
- B. NAT configurations on the interfaces are incorrectly configured
- C. NAT translation statement incorrectly configured.
- D. Only static NAT translation configured for the server, missing Dynamic NAT or Dynamic NAT overloading for internal networks.

Answer: B

Explanation:

```

R1
!
!
!
!
!
interface Loopback0
 ip address 192.168.250.1 255.255.255.255
!
interface Ethernet0/0
 description ***Link to ISP***
 ip address 209.165.200.225 255.255.255.224
 ip nat inside
 ip virtual-reassembly in
!
interface Ethernet0/1
 description ***Link to Server1 segment***
 ip address 172.16.200.1 255.255.255.0
 ip nat outside
 ip virtual-reassembly in
!
interface Ethernet0/2
 description ***Link to R2***
 ip address 192.168.10.1 255.255.255.252
 ip nat outside
 ip virtual-reassembly in
!
    
```

**NEW QUESTION 566**

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
0-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 570**

**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.

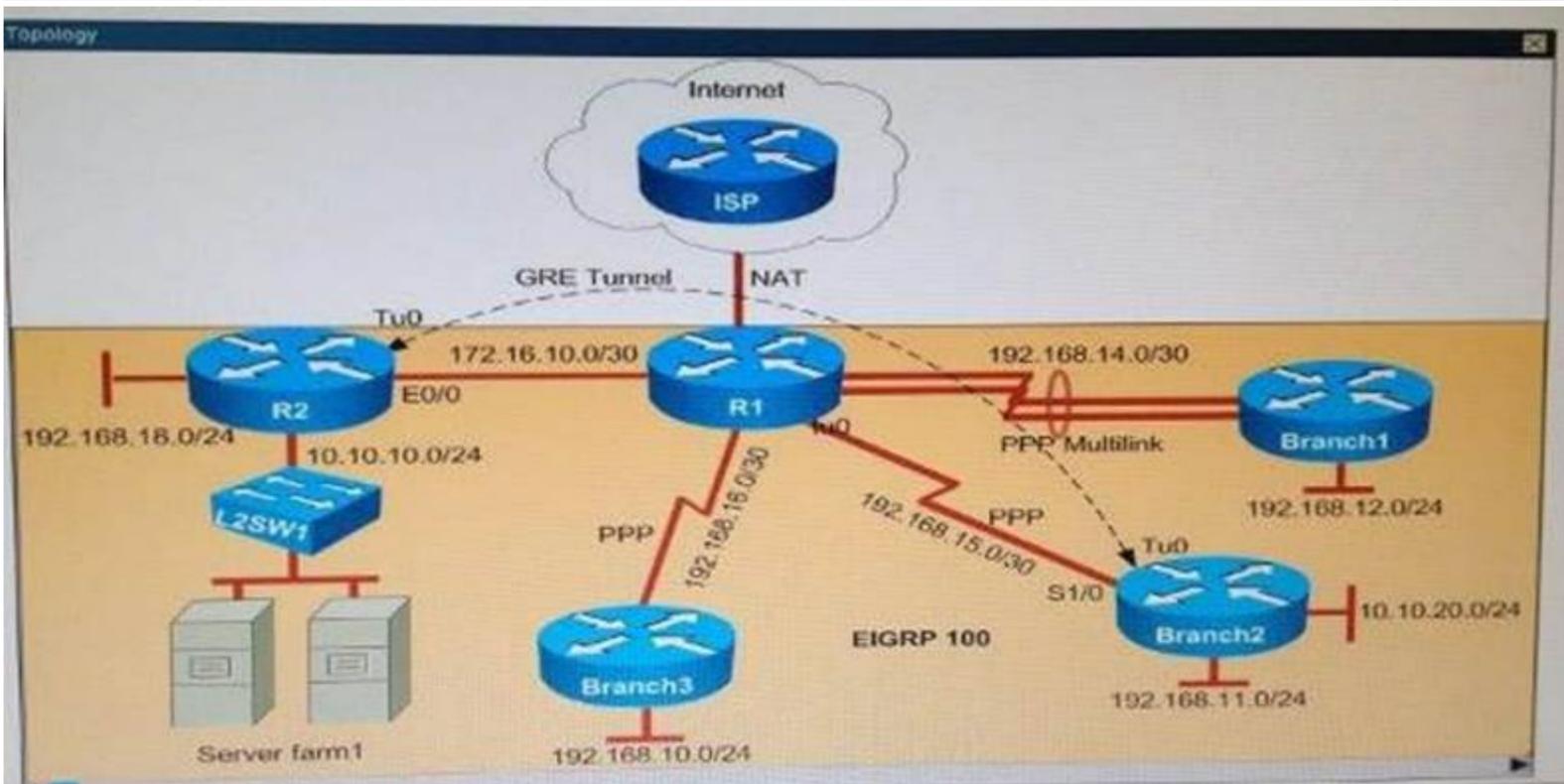
**Scenario**

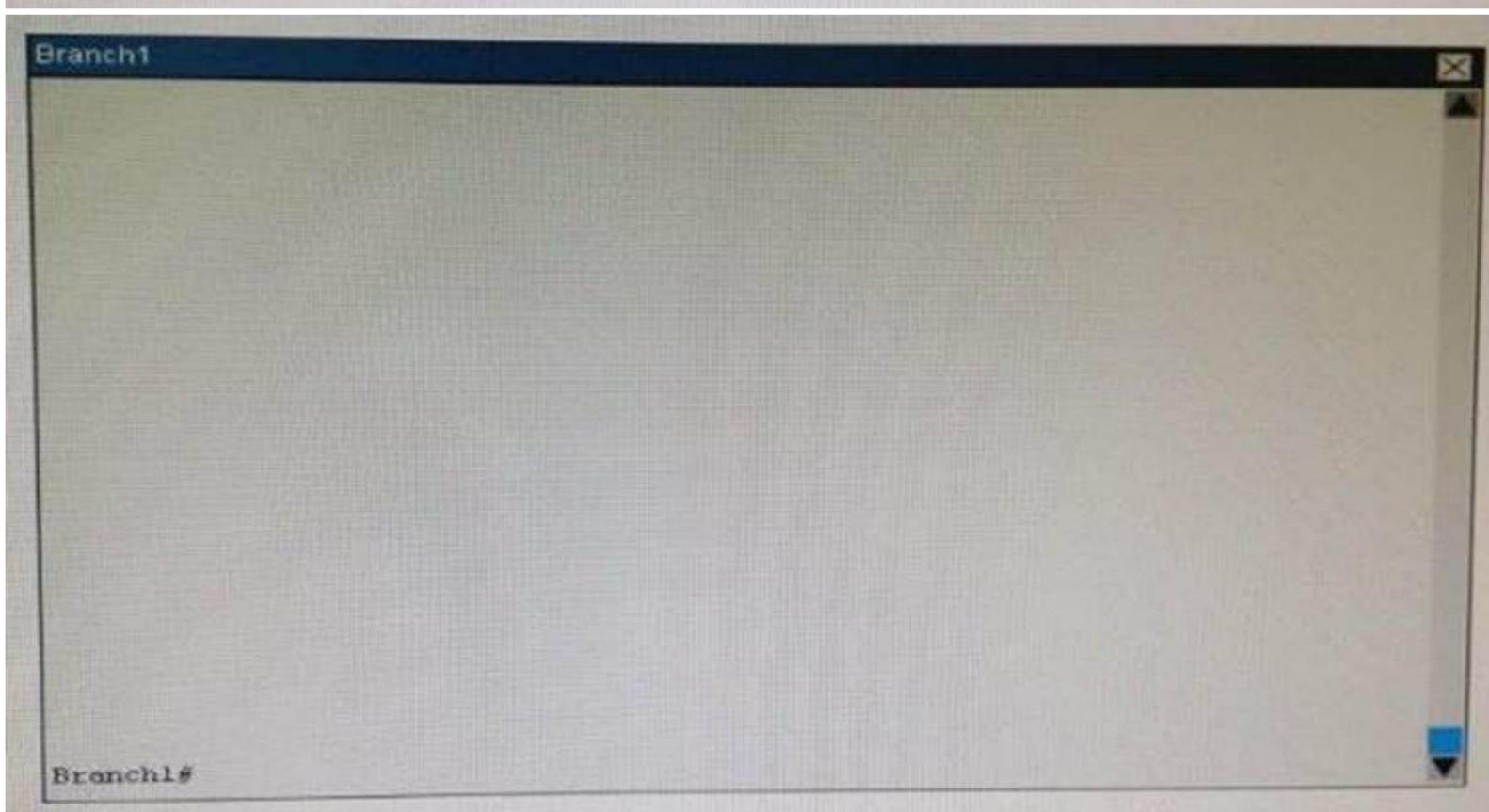
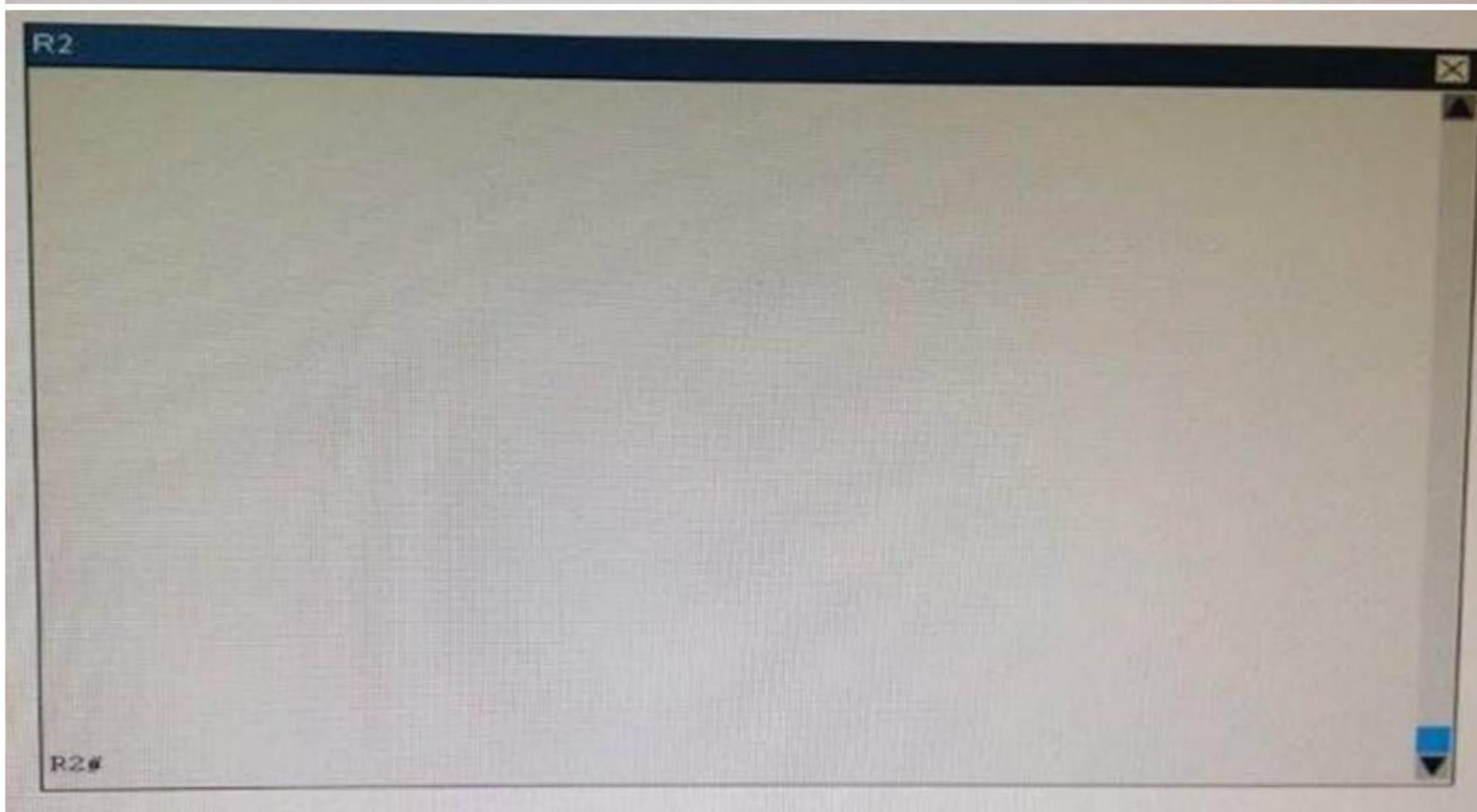
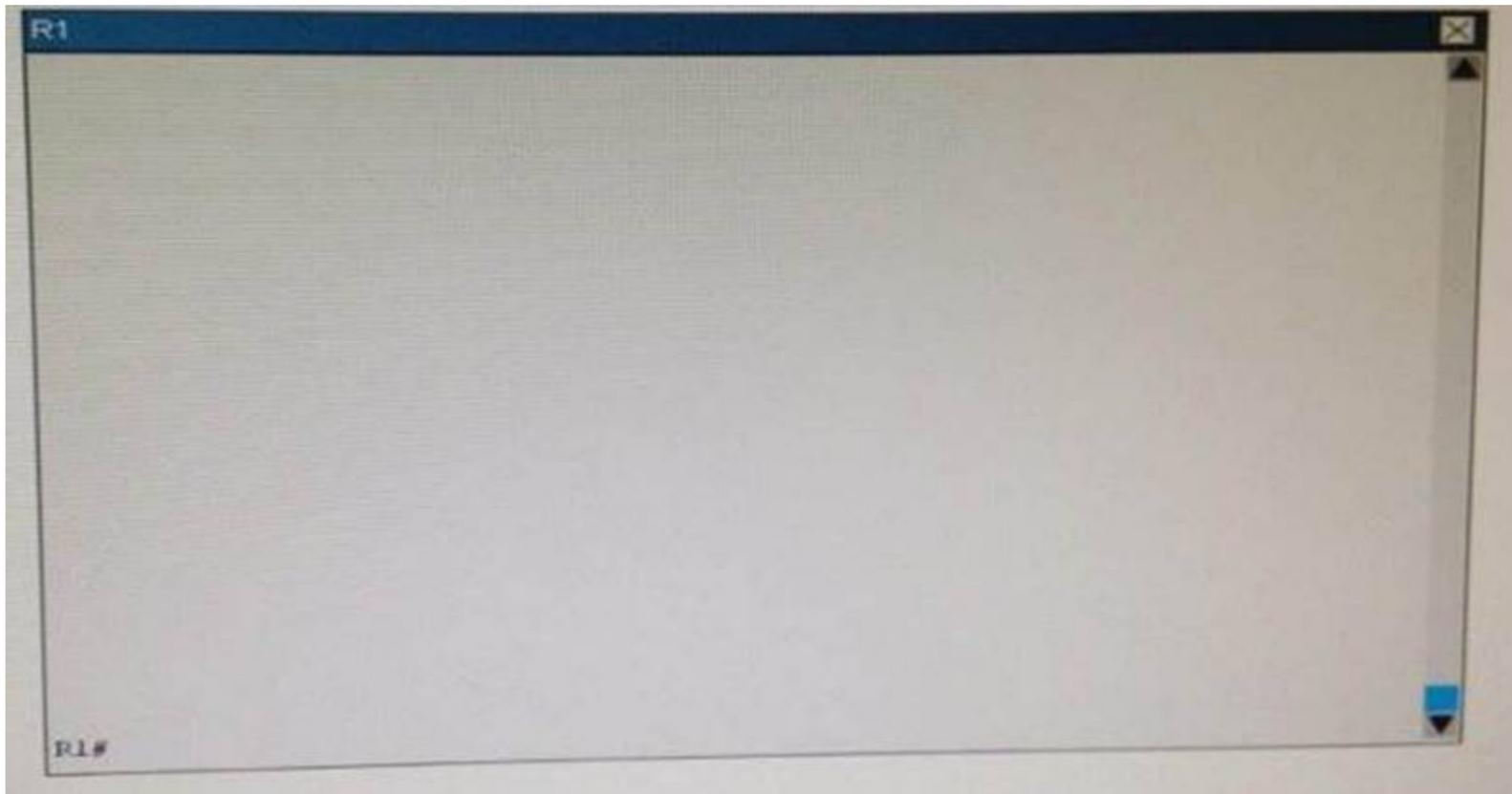
You are implementing PPP over serial links between R1 router and branch offices. In Phase 1 you must implement and verify PPP and GRE tunnel configurations as mentioned in the topology. In Phase 2 your colleague is expected to do NAT and ISP configurations between R1 and ISP router.

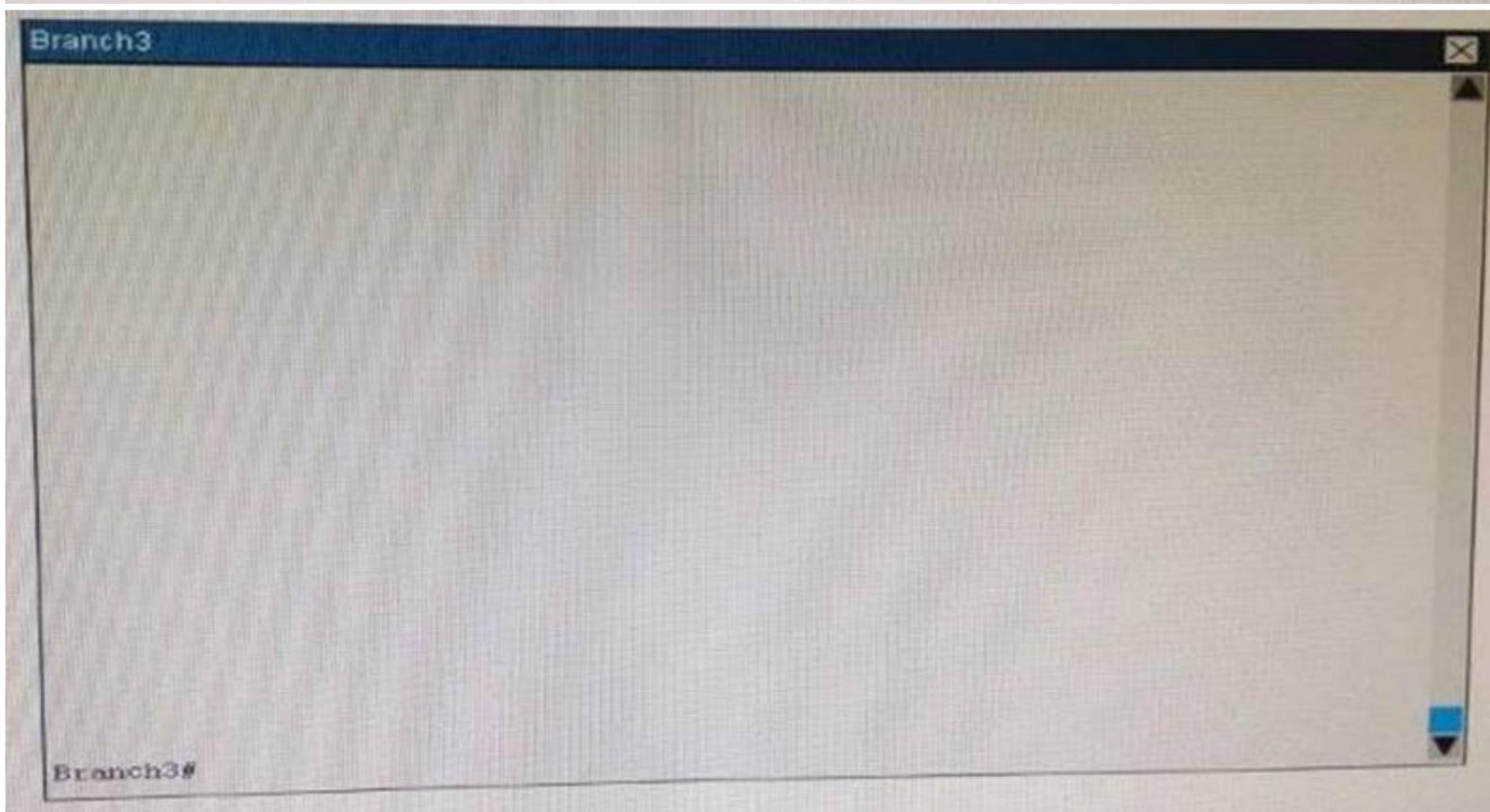
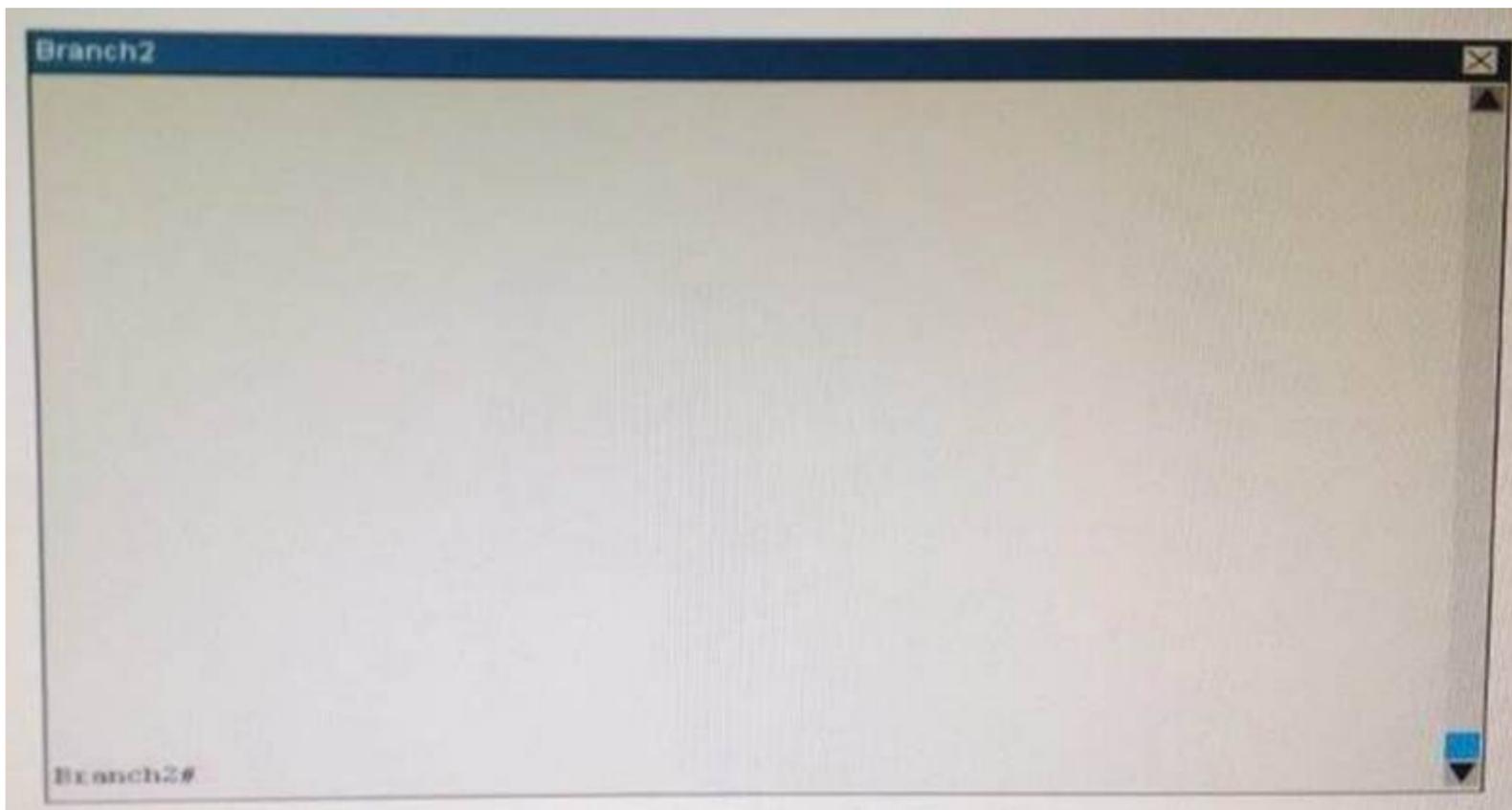
Identify the issues that you encounter during PPP over serial links implementation.

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.







Which statement about the router configurations is correct?

- A. PPP PAP is authentication configured between Branch2 and R1.
- B. Tunnel keepalives are not configured for the tunnel0 interface on Branch2 and R2.
- C. The Branch2 LAN network 192.168.11 0/24 is not advertised into the EIGRP network.
- D. The Branch3 LAN network 192.168.10.0/24 is not advertised into the EIGRP network.
- E. PPP CHAP is authentication configured between Branch1 and R1.

**Answer:** D

**Explanation:** When we check Branch3 router we notice that "network 192.168.10.0" command is missing under "router eigrp 100"

```
Branch3#show running-config
<output omitted>
!
router eigrp 100
network 192.168.16.0
!
```

**NEW QUESTION 575**

Which three statements accurately describe Layer 2 Ethernet switches? (Choose three.)

- A. Spanning Tree Protocol allows switches to automatically share VLAN information.
- B. Establishing VLANs increases the number of broadcast domains.
- C. Switches that are configured with VLANs make forwarding decisions based on both Layer 2 and Layer 3 address information.
- D. Microsegmentation decreases the number of collisions on the network.
- E. In a properly functioning network with redundant switched paths, each switched segment will contain one root bridge with all its ports in the forwarding state.
- F. All other switches in that broadcast domain will have only one root port.

G. If a switch receives a frame for an unknown destination, it uses ARP to resolve the address.

**Answer:** BDE

**Explanation:** Microsegmentation is a network design (functionality) where each workstation or device on a network gets its own dedicated segment (collision domain) to the switch. Each network device gets the full bandwidth of the segment and does not have to share the segment with other devices. Microsegmentation reduces and can even eliminate collisions because each segment is its own collision domain ->.

Note: Microsegmentation decreases the number of collisions but it increases the number of collision domains.

**NEW QUESTION 580**

Which three are benefits of VLANs? (Choose three.)

- A. They increase the size of collision domains.
- B. They allow logical grouping of users by function.
- C. They can enhance network security.
- D. They increase the size of broadcast domains while decreasing the number of collision domains.
- E. They increase the number of broadcast domains while decreasing the size of the broadcast domains.
- F. They simplify switch administration.

**Answer:** BCE

**Explanation:**

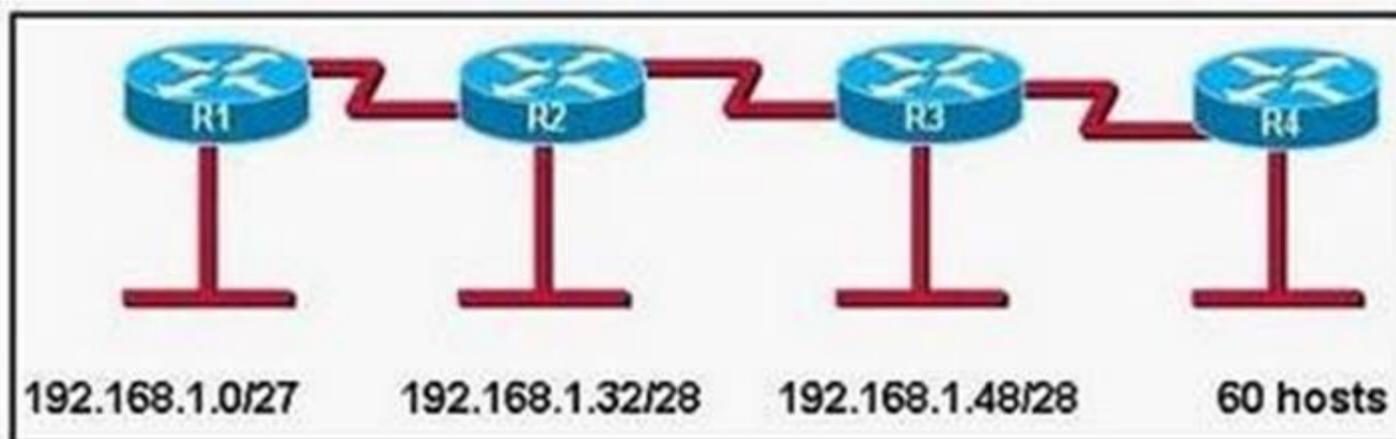
When using VLAN the number and size of collision domains remain the same -> VLANs allow to group users by function, not by location or geography -> . VLANs help minimize the incorrect configuration of VLANs so it enhances the security of the network -> . VLAN increases the size of broadcast domains but does not decrease the number of collision domains ->

VLANs increase the number of broadcast domains while decreasing the size of the broadcast domains which increase the utilization of the links. It is also a big advantage of VLAN -> .

VLANs are useful but they are more complex and need more administration ->

**NEW QUESTION 585**

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  $2^2 \cdot 2^2 \cdot 2^2 \cdot 2^2 = 64 - 2 = 62$   
 6 bits needed for hosts part. Therefore subnet bits are 2 bits (8-6) in fourth octet. 8bits+ 8bits+ 8bits + 2bits = /26  
 /26 bits subnet is 24bits + 11000000 = 24bits + 192 256 – 192 = 64  
 0 -63  
 64 – 127

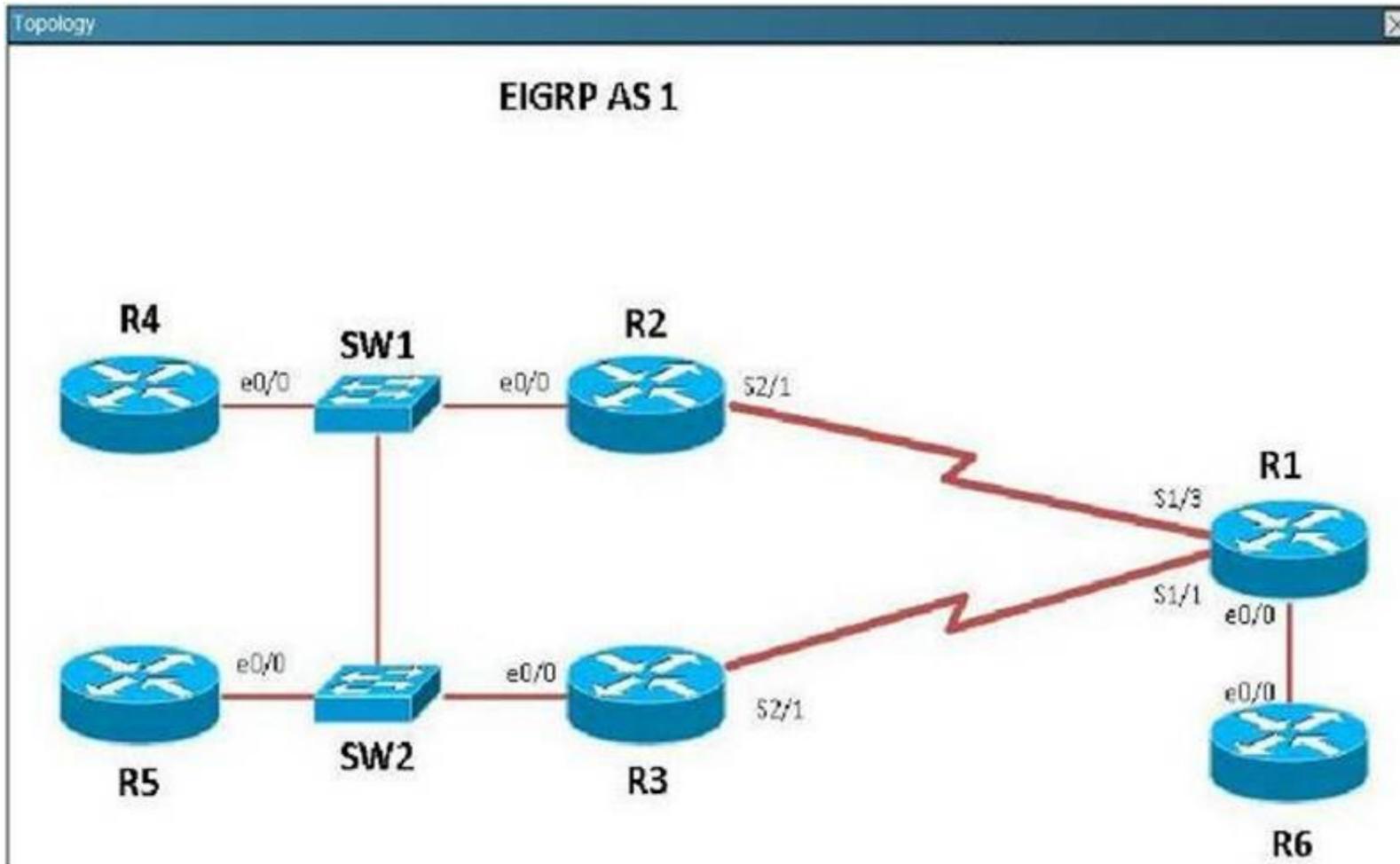
**NEW QUESTION 590**

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.

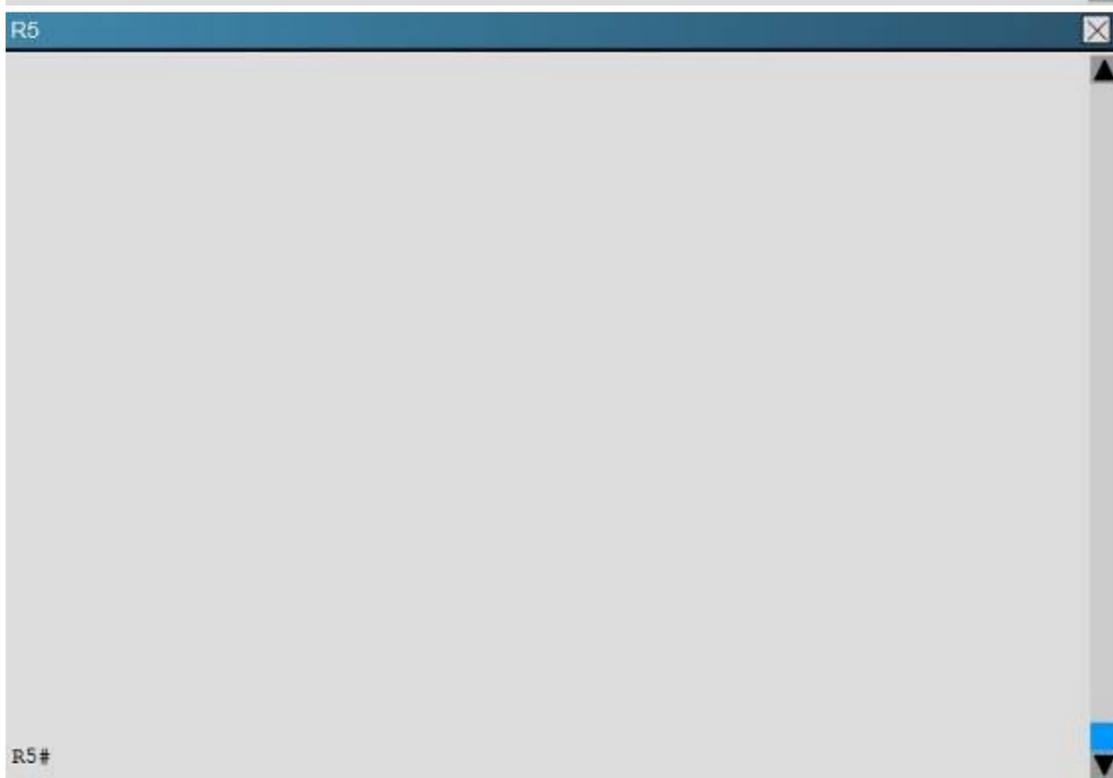
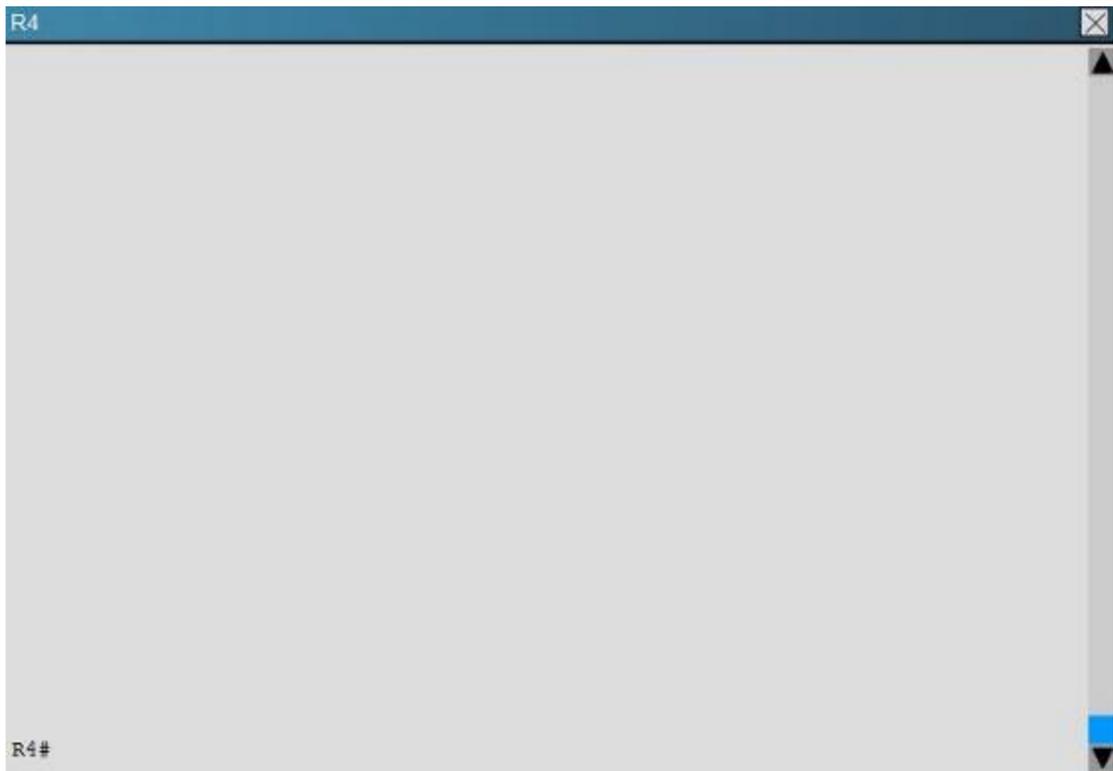


R1

```
R1#
```

R2

```
R2#
```



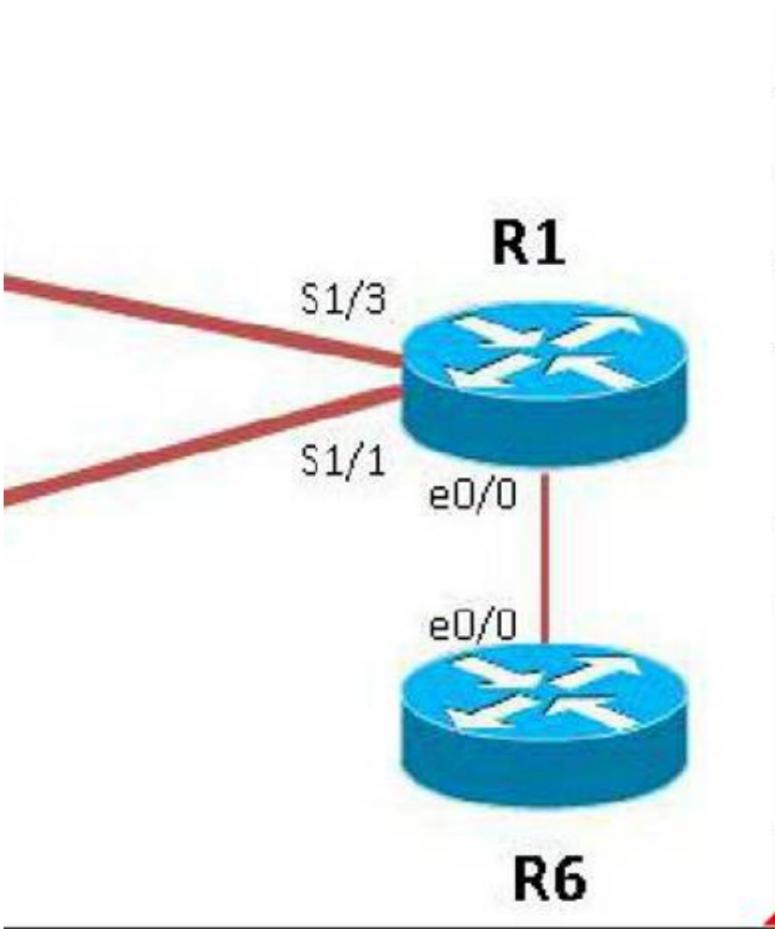


Router R6 does not form an EIGRP neighbor relationship correctly with router R1. What is the cause for this misconfiguration?

- 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	up	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	up						
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 593**

Which two statements about ipv6 any cast addresses are true ?

- A. They receive packets on the closest interface that is dissolved by the routing protocol
- B. They are used in conjunction with source specific multicast for ipv6
- C. They are allocated from the ipv6 broadcast address space
- D. They are allocated from the ipv6 unicast address space
- E. They use the prefix fc00: /8

**Answer:** AD

**NEW QUESTION 597**

Drag the security features on the left to the specific security risks they help protect against on the right. (Not all options are used.)

Drag the security features on the left to the specific security risks they help protect against on the right. (Not all options are used.)

access-group	remote access to device console
console password	access to the console 0 line
enable secret	access to connected networks or resources
CHAP authentication	viewing of passwords
VTY password	access to privileged mode
service password-encryption	

**Answer:**

**Explanation:**

Drag the security features on the left to the specific security risks they help protect against on the right. (Not all options are used.)

access-group	VTY password
console password	console password
enable secret	access-group
CHAP authentication	service password-encryption
VTY password	enable secret
service password-encryption	

**NEW QUESTION 601**

Drag and drop the switching concepts from the left onto the correct descriptions on the right.

dynamic MAC address	feature that determines whether incoming traffic will be allowed
MAC ACL	MAC address that remains in the MAC table after a reboot
MAC address table	MAC address that is learned by the switch through normal traffic flows
MAC aging	adding a previously unknown MAC address to the address table
MAC learning	associates a learned MAC address with its connected interface
static MAC Address	removing an inactive MAC address from the address table after a specified period

**Answer:**

Explanation:



NEW QUESTION 605

**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.

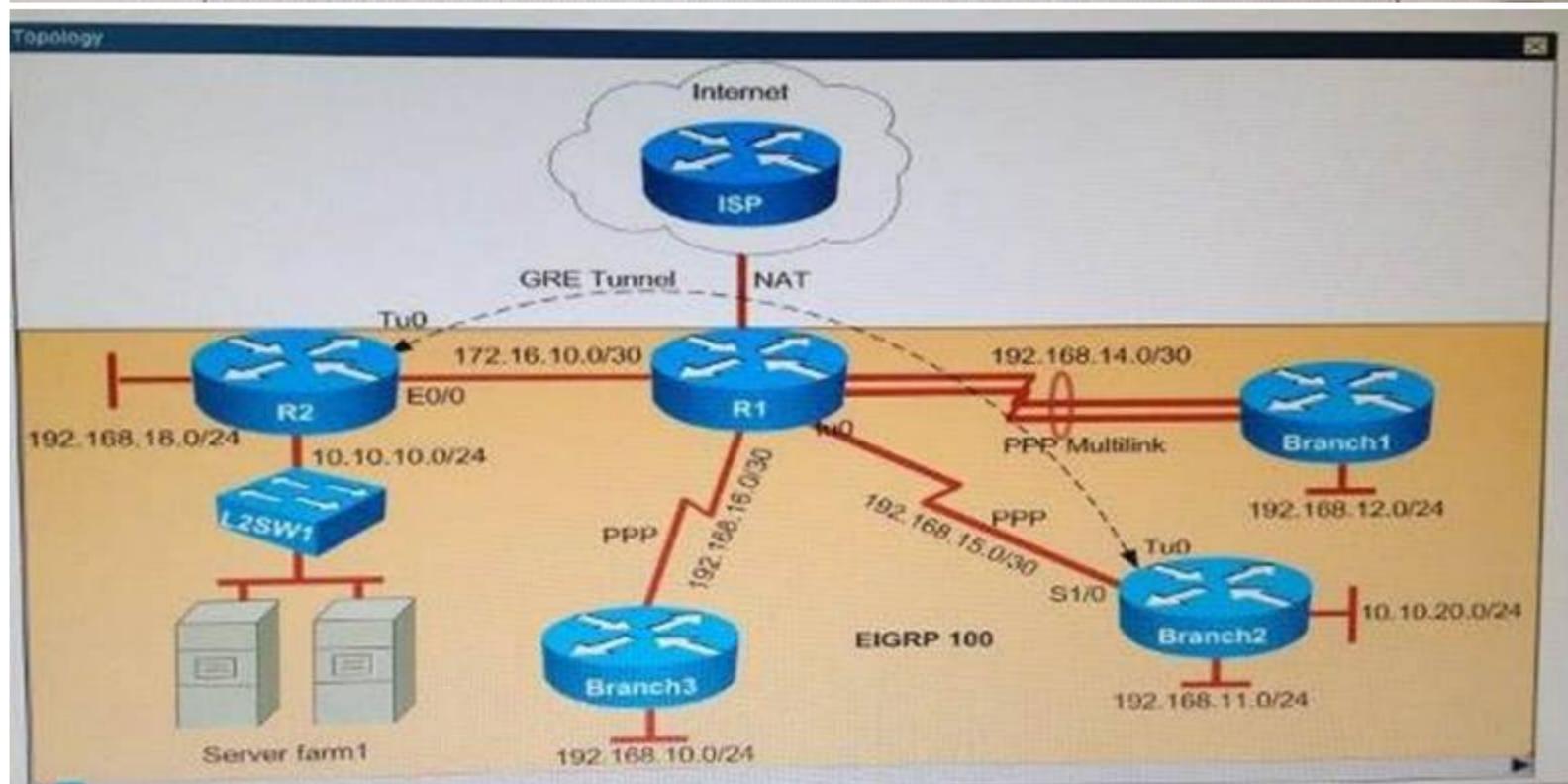
**Scenario**

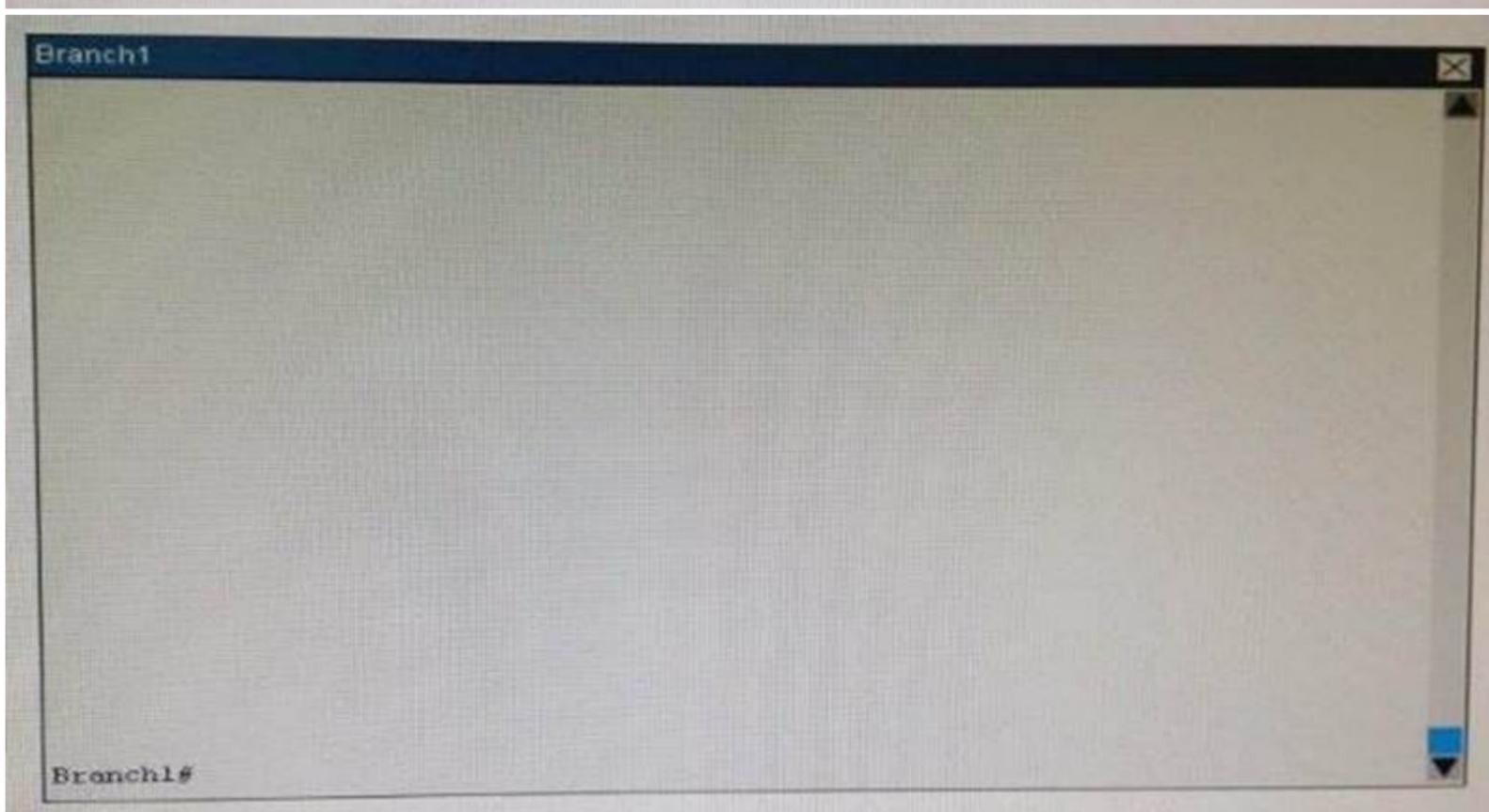
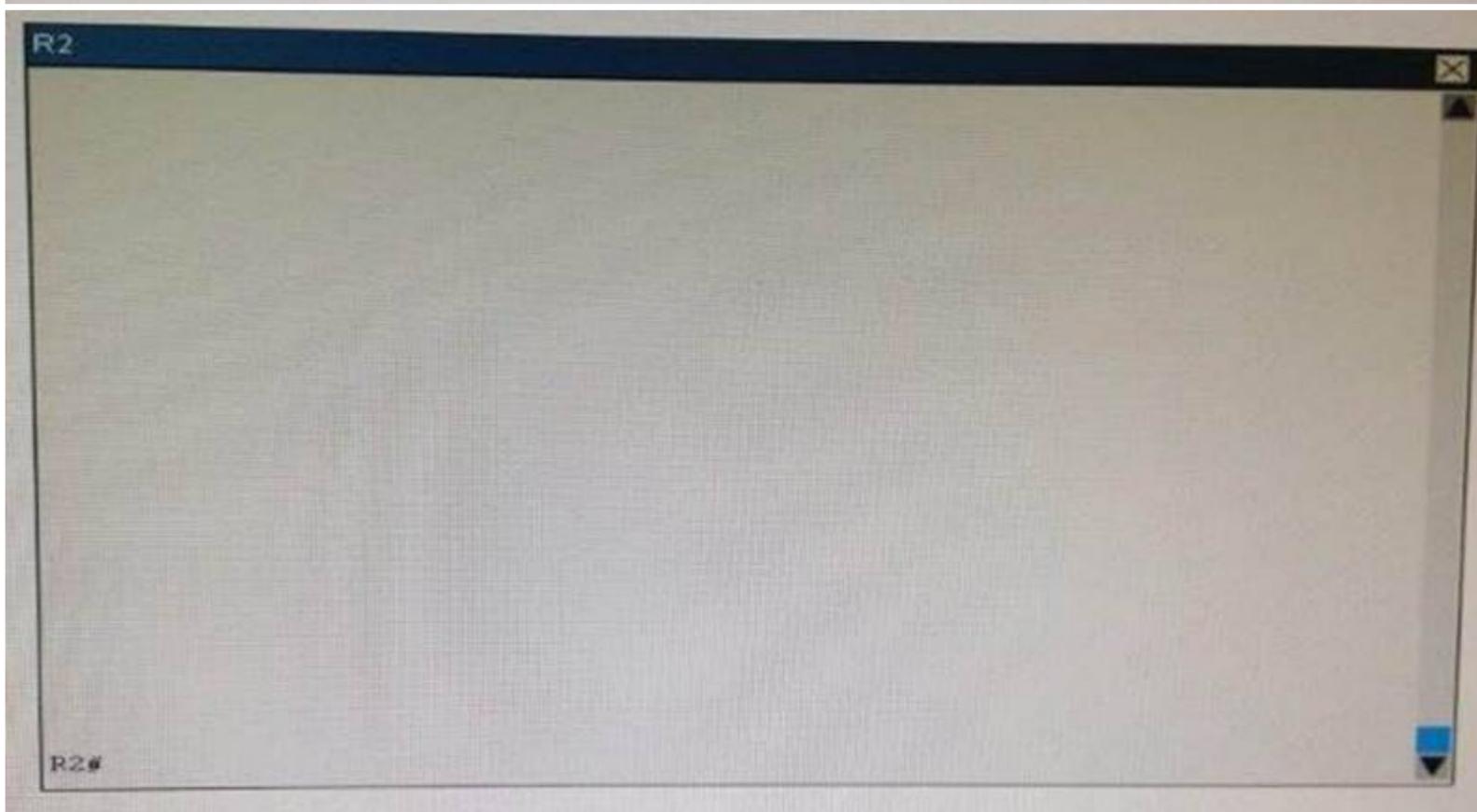
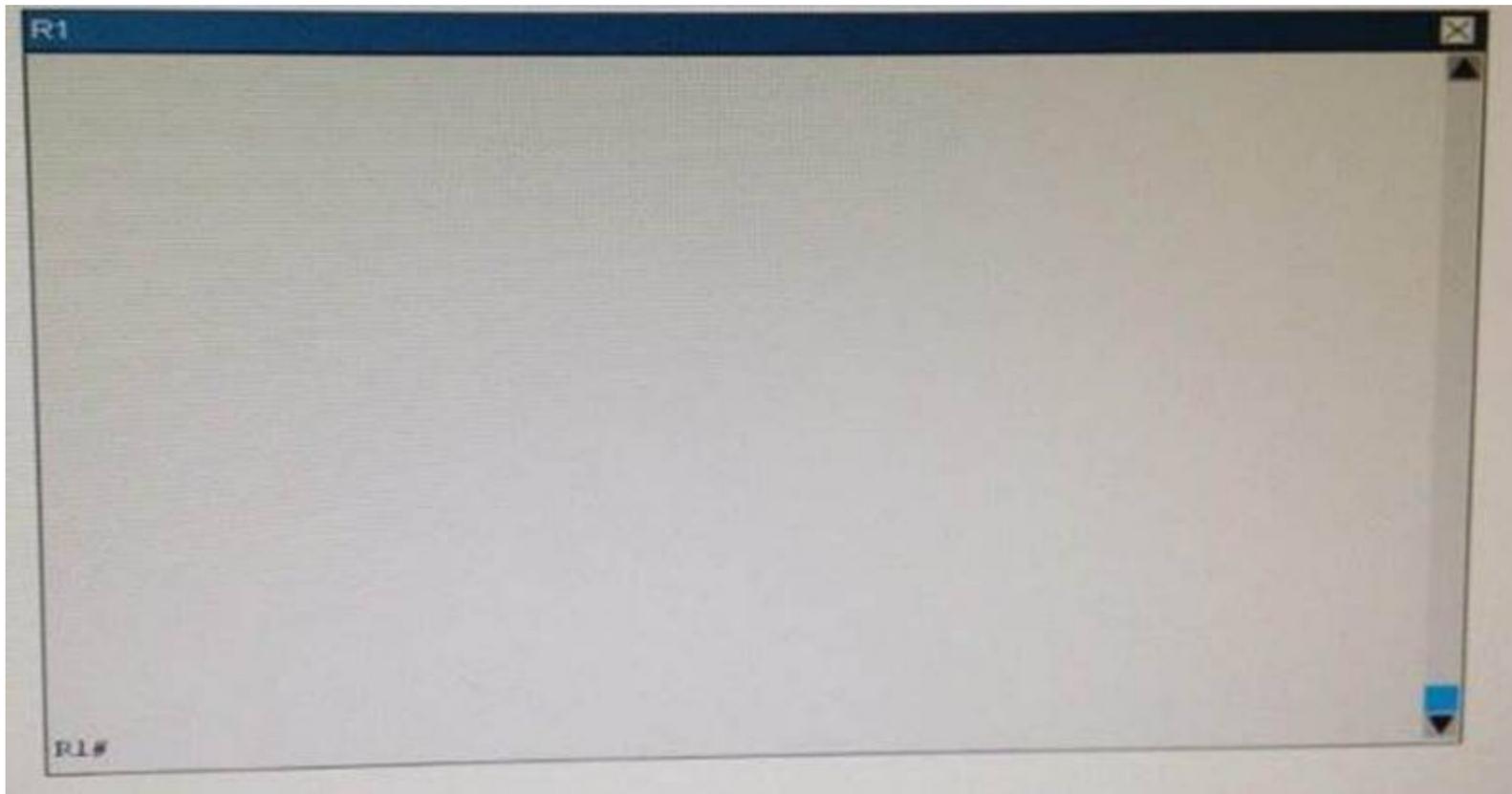
You are implementing PPP over serial links between R1 router and branch offices. In Phase 1 you must implement and verify PPP and GRE tunnel configurations as mentioned in the topology. In Phase 2 your colleague is expected to do NAT and ISP configurations between R1 and ISP router.

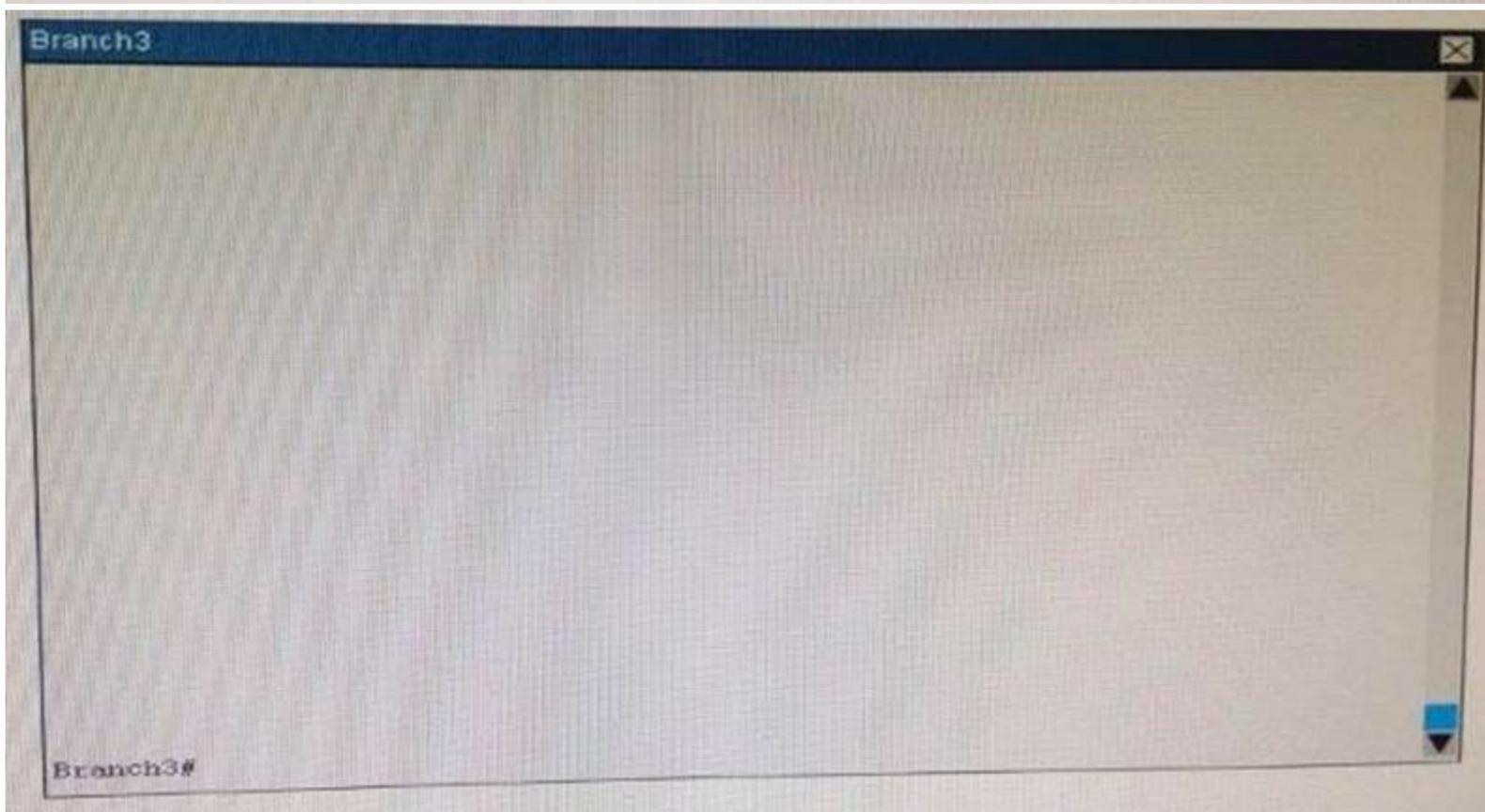
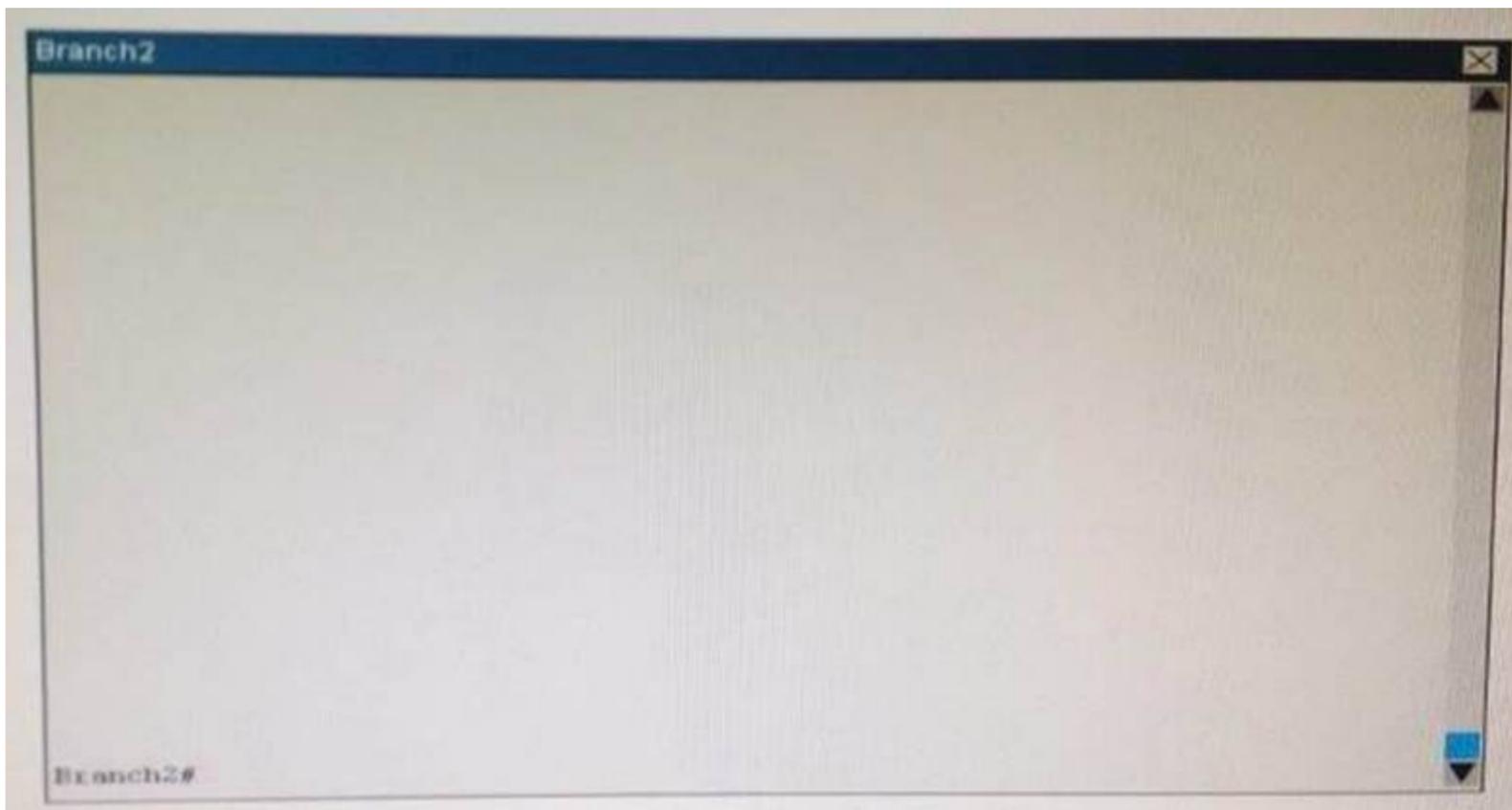
Identify the issues that you encounter during PPP over serial links implementation.

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.







Why did Branch1 router lose WAN connectivity with R1 router?

- A. The IP address is misconfigured on PPP multilink interface on the Branch1 router.
- B. The PPP multilink group is misconfigured on the Branch1 serial interfaces.
- C. The PPP multilink group is misconfigured on the R1 serial interfaces.
- D. The Branch1 serial interfaces are placed in a shutdown condition.

**Answer:** A

**Explanation:** This question clearly stated there is a WAN connectivity issue between R1 and Branch1 so we should check both of them with the “show ip interface brief” command. On R1:

R1#show ip interface brief

Interface	IP-Address	OK?	Method	Status	Protocol
Ethernet0/0	172.16.10.1	YES	manual	up	up
Ethernet0/1	203.1.1.2	YES	manual	up	up
Ethernet0/2	unassigned	YES	unset	administratively down	down
Ethernet0/3	unassigned	YES	unset	administratively down	down
Serial1/0	unassigned	YES	unset	up	up
Serial1/1	unassigned	YES	unset	up	up
Serial1/2	192.168.16.1	YES	manual	up	down
Serial1/3	192.168.15.1	YES	manual	up	up
<u>Multilink1</u>	<u>192.168.14.1</u>	YES	manual	up	up
NVI0	unassigned	NO	unset	up	up

On Branch1:

Branch1#show ip interface brief

Interface	IP-Address	OK?	Method	Status	Protocol
Ethernet0/0	192.168.12.1	YES	manual	up	up
Ethernet0/1	unassigned	YES	unset	administratively down	down
Ethernet0/2	unassigned	YES	unset	administratively down	down
Ethernet0/3	unassigned	YES	unset	administratively down	down
Serial1/0	unassigned	YES	unset	up	up
Serial1/1	unassigned	YES	unset	up	up
Serial1/2	unassigned	YES	unset	administratively down	down
Serial1/3	unassigned	YES	unset	administratively down	down
Multilink1	192.168.41.2	YES	manual	up	up

We can see that although the Multilink1 interfaces are in "up/up" state but they are not in the same subnet. According to the IP address scheme shown on the topology we can deduce the Multilink interface on Branch1 has been misconfigured, it should be 192.168.14.2 instead.

NEW QUESTION 608

**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.

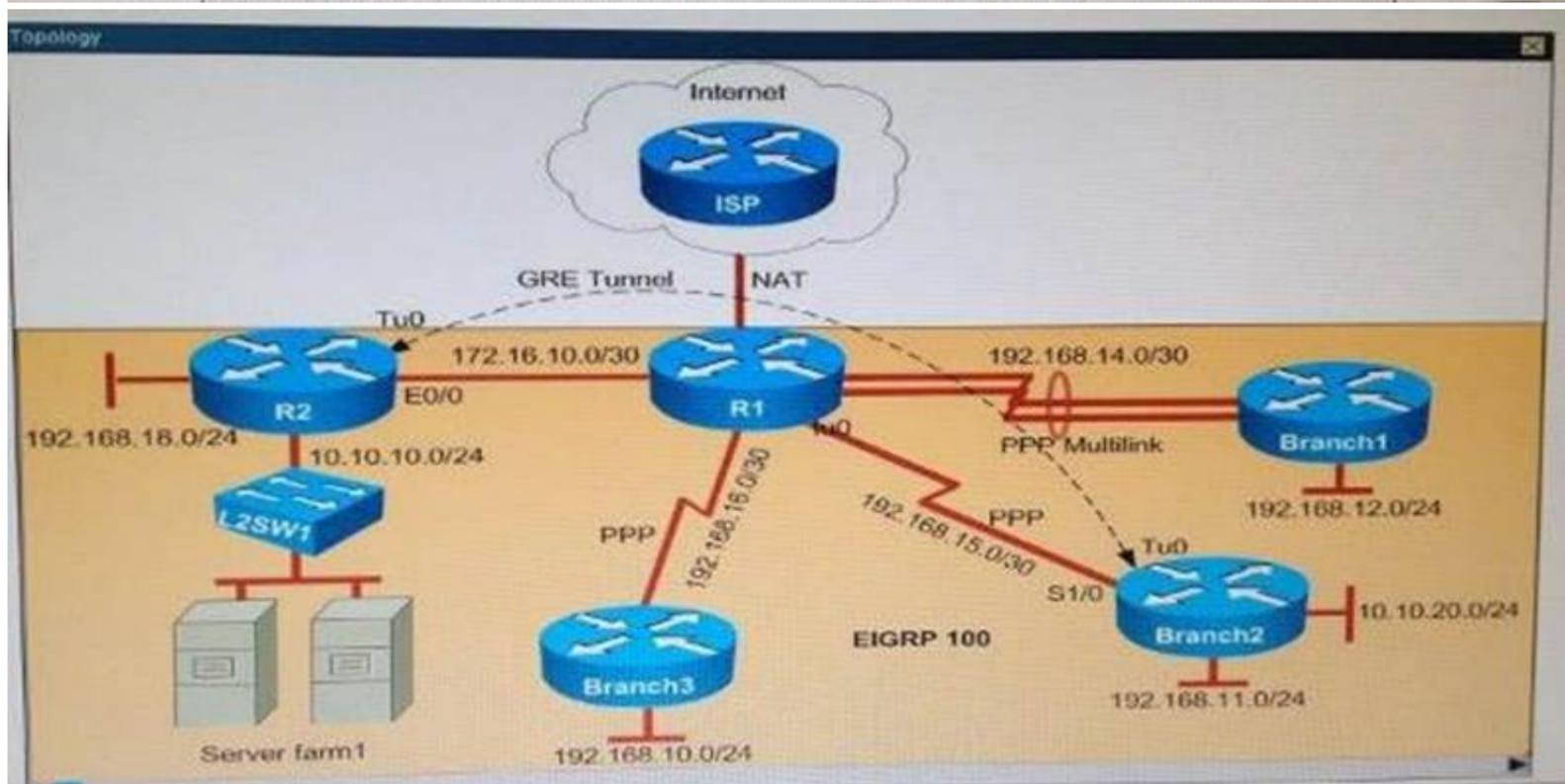
**Scenario**

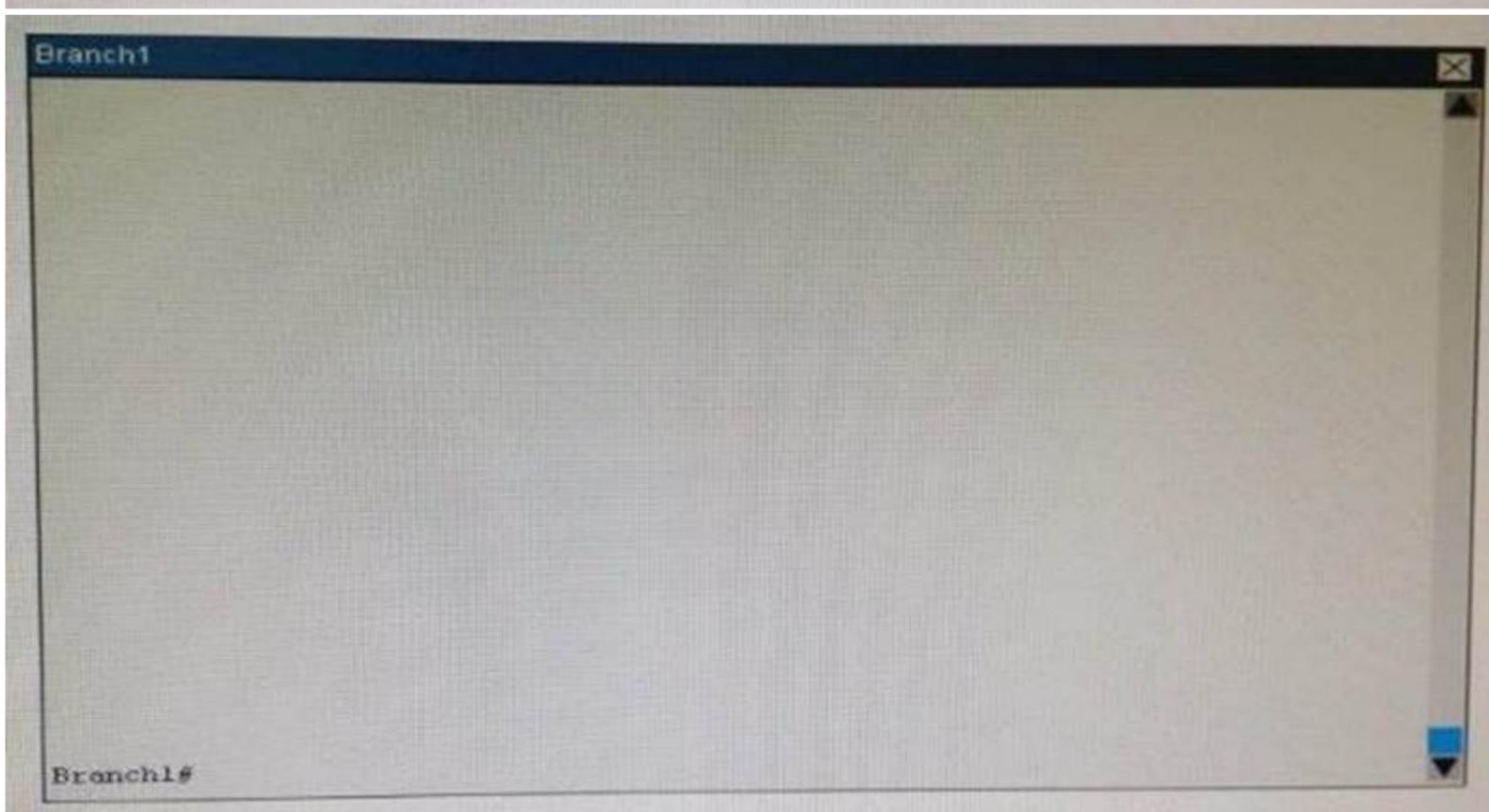
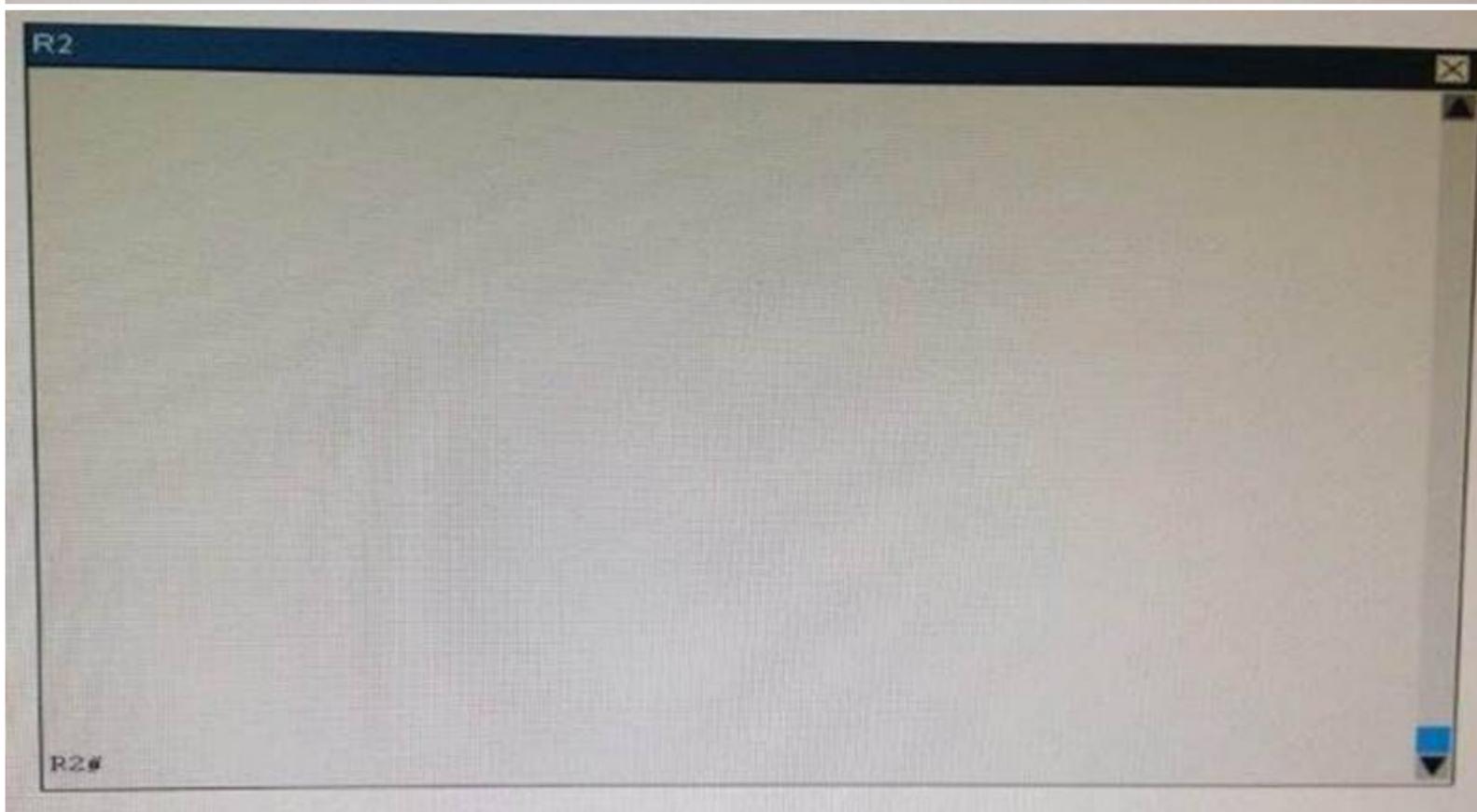
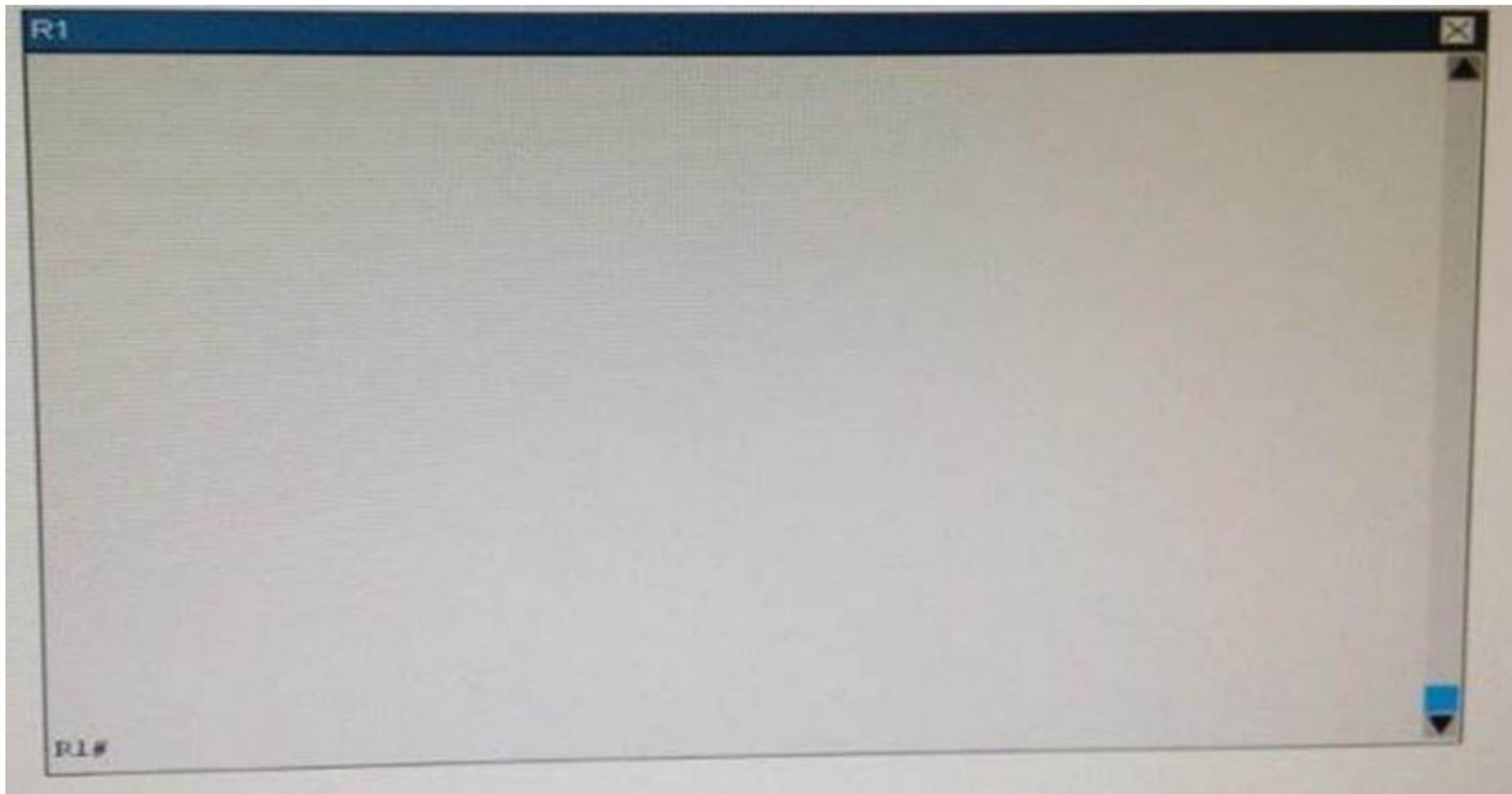
You are implementing PPP over serial links between R1 router and branch offices. In Phase 1 you must implement and verify PPP and GRE tunnel configurations as mentioned in the topology. In Phase 2 your colleague is expected to do NAT and ISP configurations between R1 and ISP router.

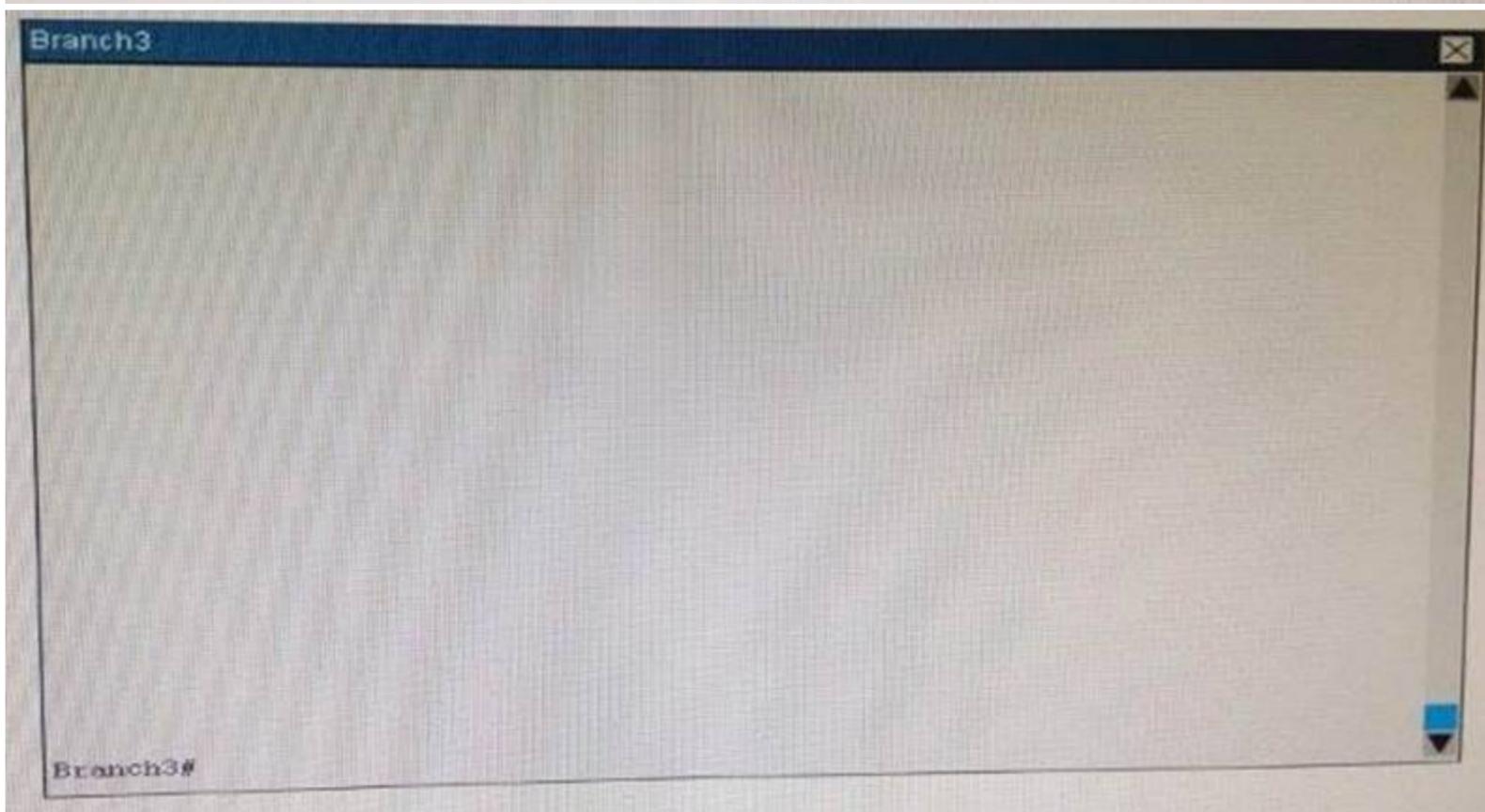
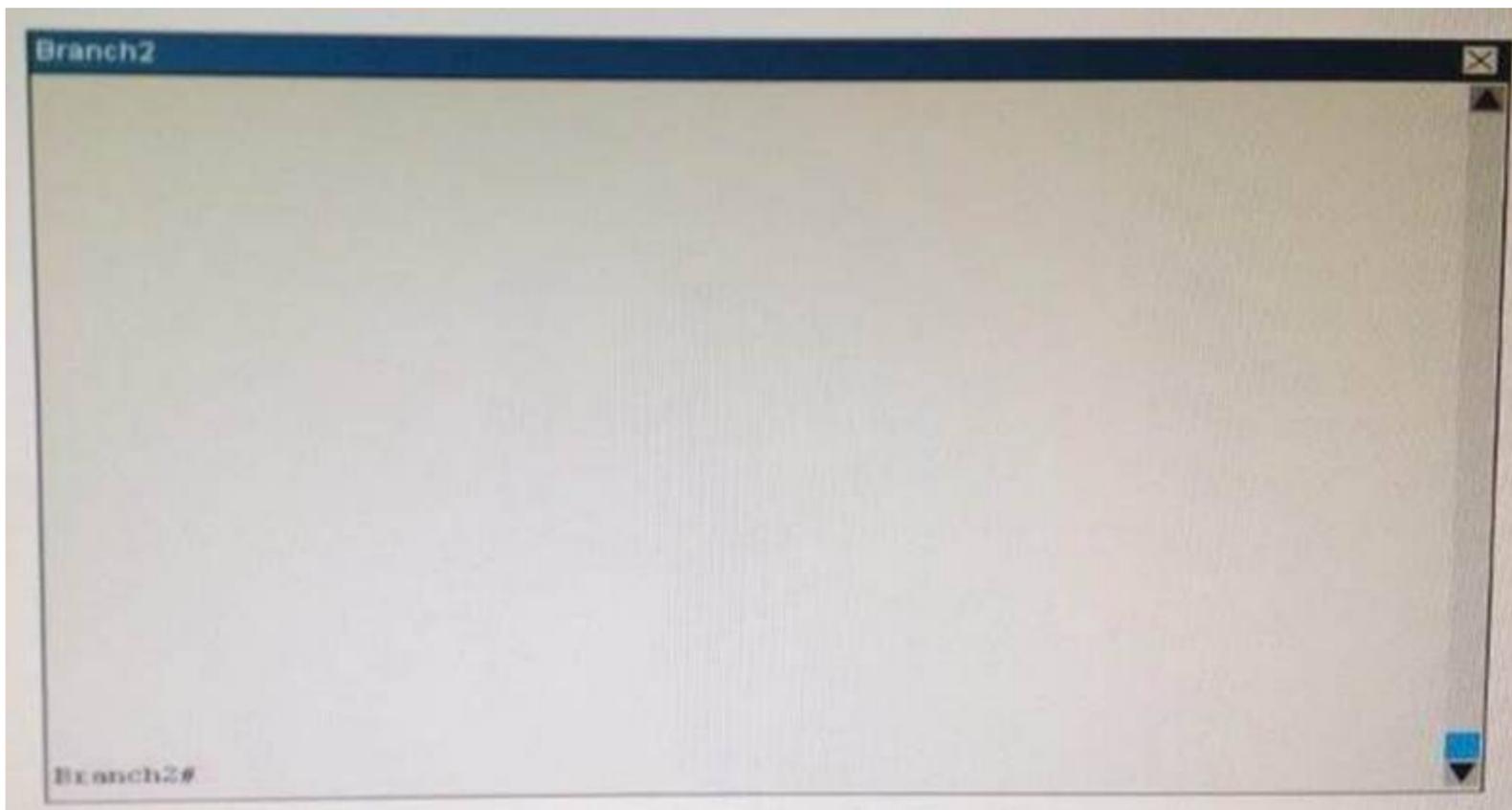
Identify the issues that you encounter during PPP over serial links implementation.

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.







Why has the Branch3 router lost connectivity with R1?

Use only show commands to troubleshoot because usage of the debug command is restricted on the Branch3 and R1 routers.

- A. A PPP chap hostname mismatch is noticed between Branch3 and R1.
- B. A PPP chap password mismatch is noticed between Branch3 and R1.
- C. PPP encapsulation is not configured on Branch3.
- D. The PPP chap hostname and PPP chap password commands are missing on the Branch3 router.

**Answer:** A

**Explanation:** First we should check Branch3 (and R1) with the "show ip interface brief" command to find any Layer1/Layer 2 issue.

```
Branch3# show ip interface brief
```

Interface	IP-Address	OK?	Method	Status	Protocol
Ethernet0/0	192.168.10.1	YES	manual	up	up
Ethernet0/1	unassigned	YES	unset	administratively down	down
Ethernet0/2	unassigned	YES	unset	administratively down	down
Ethernet0/3	unassigned	YES	unset	administratively down	down
Serial1/0	192.168.16.2	YES	manual	up	down
Serial1/1	unassigned	YES	unset	administratively down	down
Serial1/2	unassigned	YES	unset	administratively down	down
Serial1/3	unassigned	YES	unset	administratively down	down

We see the interfaces connecting between them are in "up/down" states which indicates an Layer 2 issue so we should check the configuration of these interfaces carefully with the "show running-config" command and pay attention to these interfaces.

```
R1#show running-config
<output omitted>
interface Serial1/2
 ip address 192.168.16.1 255.255.255.252
 ip nat inside
 ip virtual-reassembly in
 encapsulation ppp
 ppp authentication chap
 serial restart-delay 0
```

and on Branch3:

```
Branch3# show running-config
<output omitted>
interface Serial1/0
 ip address 192.168.16.2 255.255.255.252
 encapsulation ppp
 ppp chap hostname Branch_3
 ppp chap password 0 Branch3_Secret!
 serial restart-delay 0
```

We learn from above config is R1 is using CHAP to authenticate Branch3 router (via the "ppp authentication chap" command on R1). Branch3 router is sending CHAP hostname "Branch\_3" and CHAP password "Branch3\_Secret!" to R1 to be authenticated. Therefore we should check if R1 has already been configured with such username and password or not with the "show running-config" command on R1:

```
R1#show running-config
<output omitted>
username Branch2 password 0 Branch2_Secret!
username Branch3 password 0 Branch3_Secret!
```

R1\_show\_run\_username.jpg

On R1 we see the configured username is "Branch3", not "Branch\_3" so the usernames here are mismatched and this is the problem -> Answer A is correct.

#### NEW QUESTION 613

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 618

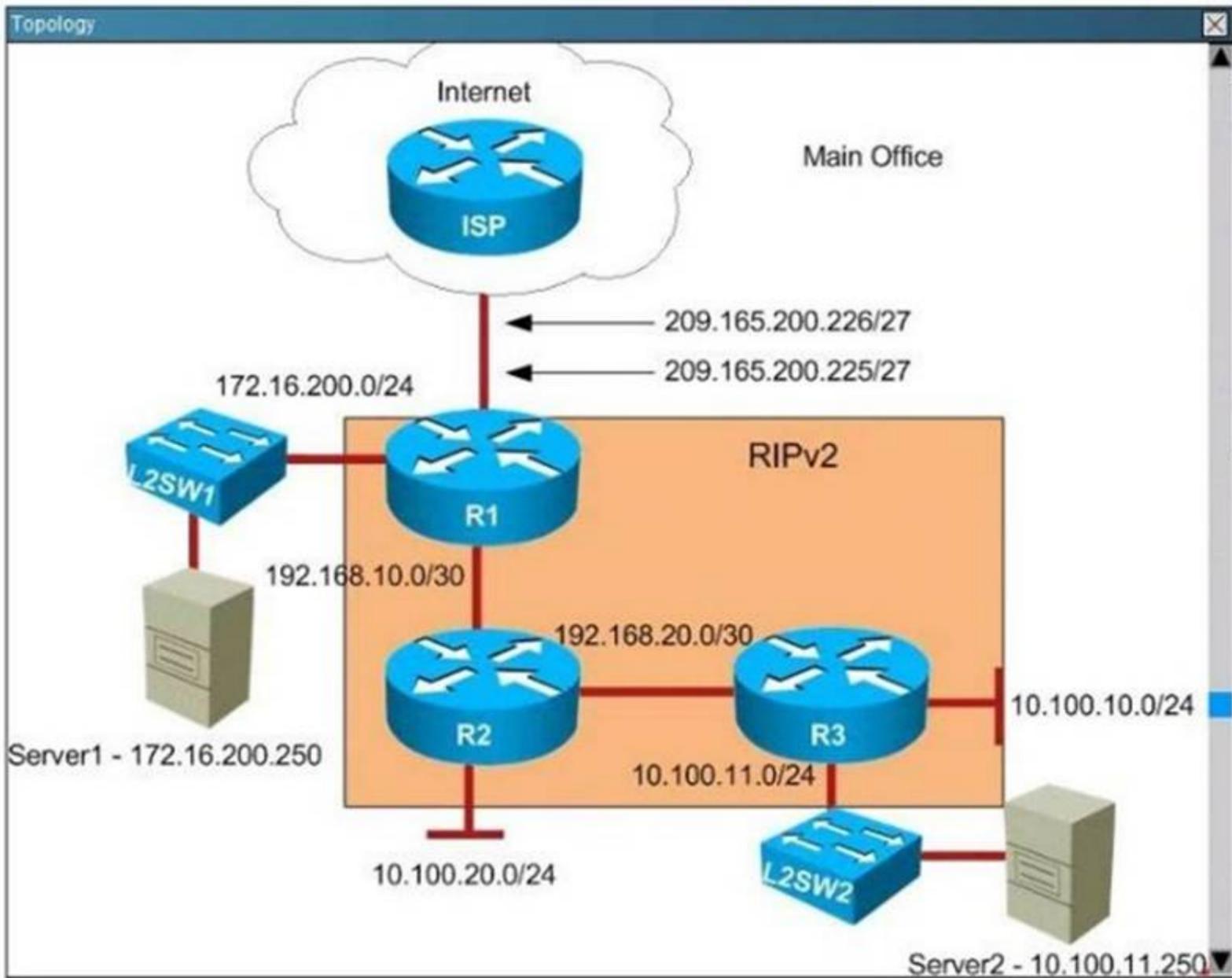
Scenario:

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 623**

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.







```
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
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 626**

Which type of device can be replaced by the use of sub interfaces for VLAN routing?

- A. Layer 2 bridge
- B. Layer 2 switch
- C. Layer 3 switch
- D. router

**Answer:** C

**NEW QUESTION 631**

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 633**

Which two statements about Cisco Discovery Protocol are true? (Choose two )

- A. It is used to initiate a VTP server and client relationship.
- B. It uses SNMP to share device information to an external server
- C. It uses TLVs to share device information.
- D. It runs on the data link layer only
- E. It runs on the network layer and the data link layer.

**Answer:** CD

**NEW QUESTION 636**

What parameter can be different on ports within an EtherChannel?

- A. speed
- B. DTP negotiation settings
- C. trunk encapsulation
- D. duplex

**Answer:** B

**Explanation:** For an etherchannel to come up, the speed, duplex and the trunk encapsulation must be the same on each end.

**NEW QUESTION 640**

Which two benefits of implementing a full mesh wan topology are true? choose two

- A. redundancy
- B. reduced jitter
- C. increased latency
- D. improved scalability
- E. reliability

**Answer:** AE

**NEW QUESTION 642**

What is the first step in the NAT configuration process?

- A. Define inside and outside interfaces.
- B. Define public and private IP addresses.
- C. Define IP address pools.
- D. Define global and local interfaces.

**Answer:** A

**NEW QUESTION 647**

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 648**

Drag and drop the IEEE standard Cable names from the left onto the correct cable types on the right?

**Answer:**

**Explanation:**

**NEW QUESTION 653**

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 657**

.....

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