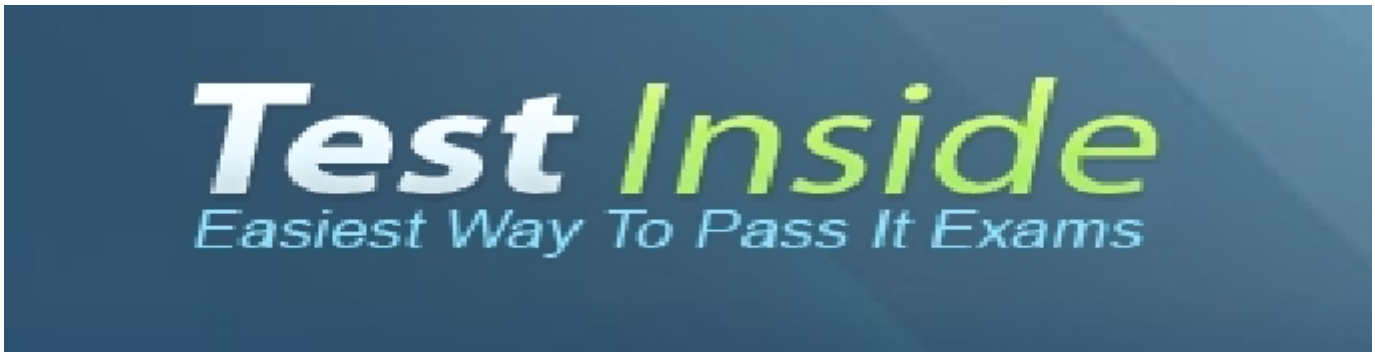
Cisco.Test-inside.200-101.v2014-02-10.by.Nada.120q

Number: 200-101
Passing Score: 825
Time Limit: 120 min
File Version: 12.5

Exam Code: 200-101

Exam Name: Interconnecting Cisco Networking Devices Part 2 (ICND2)
Powered by NCV. VIÑA. CHILE.



Sections
1. LAN Switching Technologies
2. IP Routing Technologies
3. IP Services
4. Troubleshooting
5. WAN Technologies

Multiple Choice

QUESTION 1
Refer to the exhibit.

Why has this switch not been elected the root bridge for VLAN1?

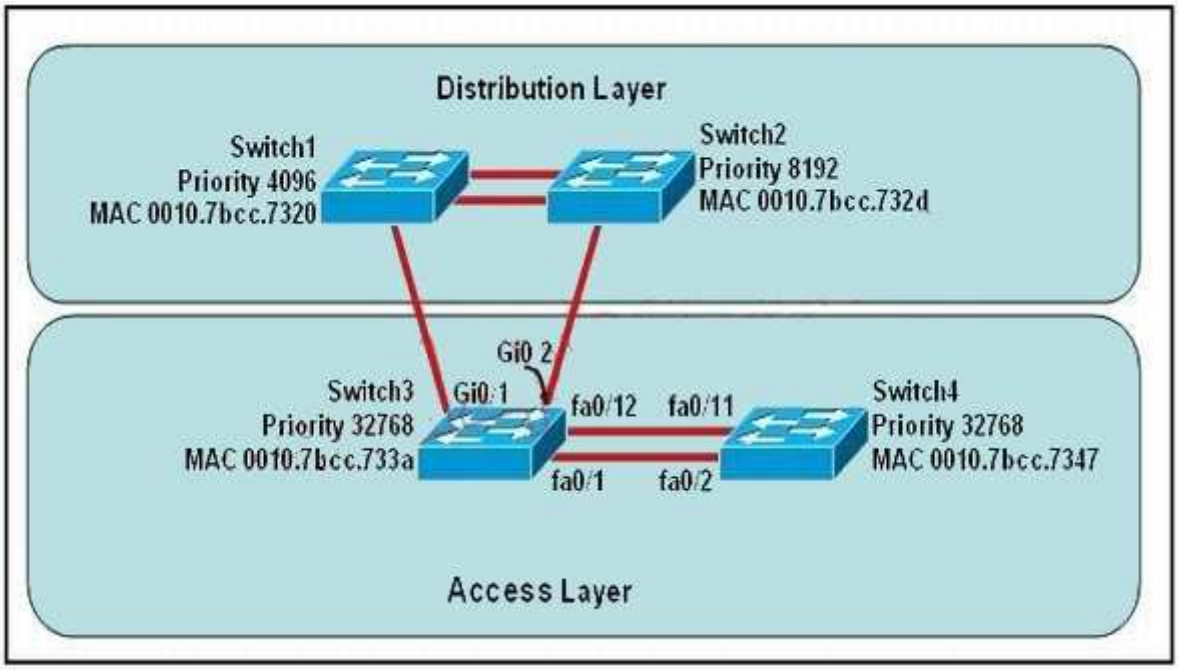
```
Switch# show spanning-tree vlan 1
VLAN0001
  Spanning tree enabled protocol rstp
  Root ID    Priority    20481
             Address     0008.217a.5800
             Cost        38
             Port        1 (FastEthernet0/1)
             Hello Time   2 sec  Max Age 20 sec  Forward Delay 15 sec

  Bridge ID  Priority    32769  (priority 32768 sys-id-ext 1)
             Address     0008.205e.6600
             Hello Time   2 sec  Max Age 20 sec  Forward Delay 15 sec
             Aging Time 300


Interface        Role Sts Cost      Prio.Nbr Type
---------------- ---- --- --------- -------- --------------------------------
Fa0/1            Root FWD 19        128.1    P2p
Fa0/4            Desg FWD 38        128.1    P2p
Fa0/11           Altn BLK 57        128.1    P2p
Fa0/13           Desg FWD 38        128.1    P2p
```

A. It has more than one interface that is connected to the root network segment.
B. It is running RSTP while the elected root bridge is running 802.1d spanning tree.
C. It has a higher MAC address than the elected root bridge.
D. It has a higher bridge ID than the elected root bridge.

Correct Answer: D
Section: LAN Switching Technologies

QUESTION 2
Refer to the exhibit.

At the end of an RSTP election process, which access layer switch port will assume the discarding role?

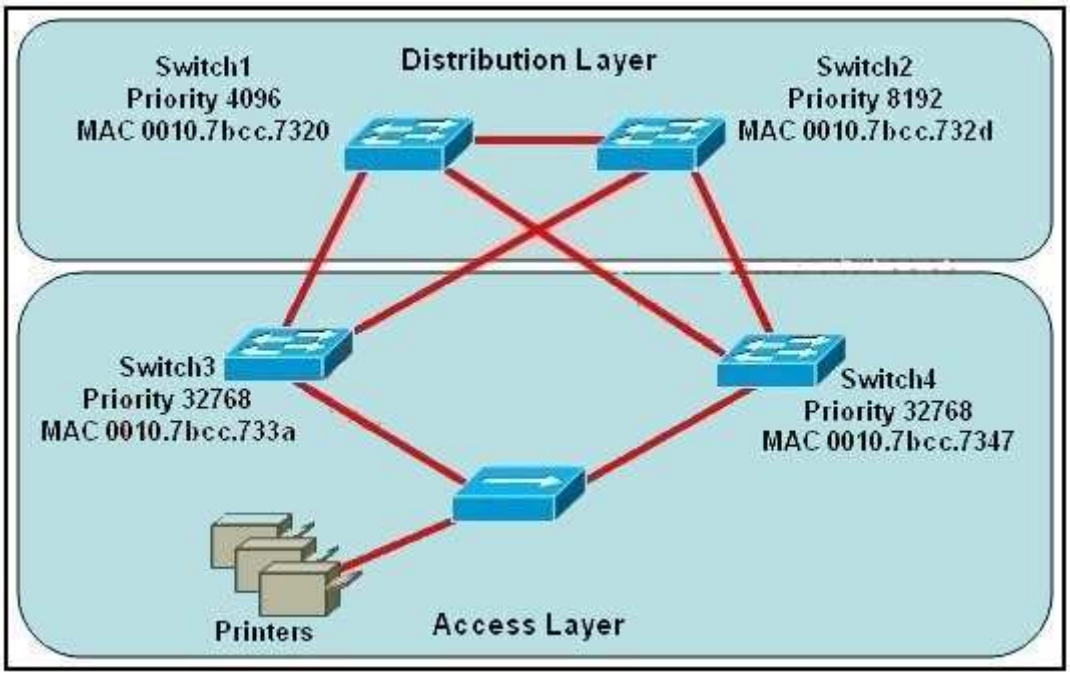


A. Switch3, port fa0/1
B. Switch3, port fa0/12
C. Switch4, port fa0/11
D. Switch4, port fa0/2
E. Switch3, port Gi0/1
F. Switch3, port Gi0/2

Correct Answer: C
Section: LAN Switching Technologies

QUESTION 3
Refer to the exhibit.

Which switch provides the spanning-tree designated port role for the network segment that services the printers?



A. Switch1
B. Switch2
C. Switch3
D. Switch4

Correct Answer: C
Section: LAN Switching Technologies

QUESTION 4
Refer to the exhibit.

Given the output shown from this Cisco Catalyst 2950, what is the reasons that interface FastEthernet 0/10 is not the root port for VLAN 2?

```
Switch# show spanning-tree interface fastethernet 0/10
Vlan             Role Sts Cost      Prio.Nbr Type
---------------- ---- --- --------- -------- -------------------------------
VLAN0001         Root FWD 19        128.1    P2p
VLAN0002         Altn BLK 19        128.2    P2p
VLAN0003         Root FWD 19        128.2    P2p
```

A. This switch has more than one interface connected to the root network segment in VLAN 2.
B. This switch is running RSTP while the elected designated switch is running 802.1d Spanning Tree.
C. This switch interface has a higher path cost to the root bridge than another in the topology.
D. This switch has a lower bridge ID for VLAN 2 than the elected designated switch.

Correct Answer: C
Section: LAN Switching Technologies

QUESTION 5
Which two of these statements regarding RSTP are correct? (Choose two.)

A. RSTP cannot operate with PVST+.
B. RSTP defines new port roles.
C. RSTP defines no new port states.
D. RSTP is a proprietary implementation of IEEE 802.1D STP.
E. RSTP is compatible with the original IEEE 802.1D STP.

Correct Answer: BE
Section: LAN Switching Technologies

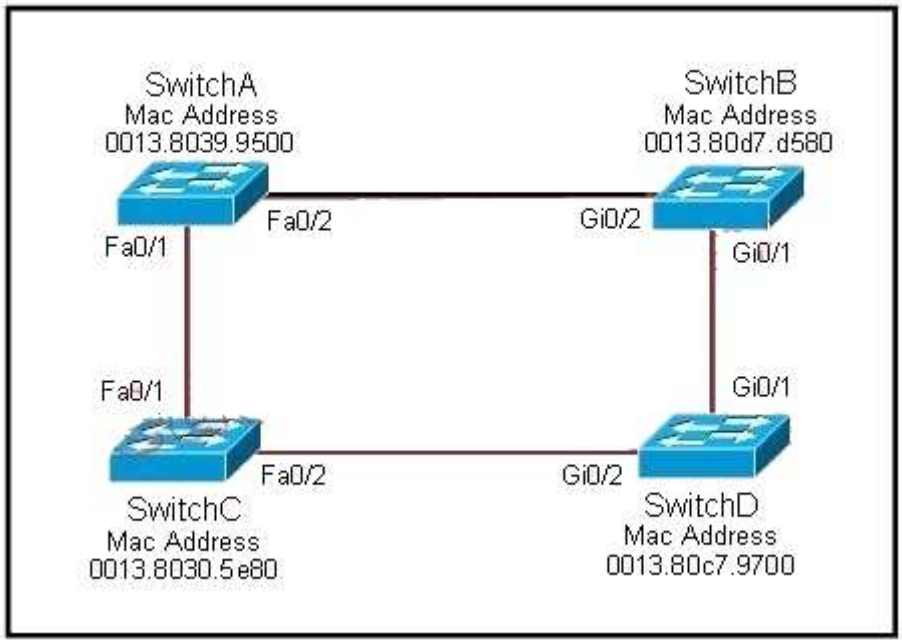
QUESTION 6
Which port state is introduced by Rapid-PVST?

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

Correct Answer: C
Section: LAN Switching Technologies

QUESTION 7
Refer to the exhibit.

Each of these four switches has been configured with a hostname, as well as being configured to run RSTP. No other configuration changes have been made. Which three of these show the correct RSTP port roles for the indicated switches and interfaces? (Choose three.)



A. SwitchA, Fa0/2, designated
B. SwitchA, Fa0/1, root
C. SwitchB, Gi0/2, root
D. SwitchB, Gi0/1, designated
E. SwitchC, Fa0/2, root
F. SwitchD, Gi0/2, root

Correct Answer: ABF
Section: LAN Switching Technologies

QUESTION 8
Which two states are the port states when RSTP has converged? (Choose two.)

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

Correct Answer: AD
Section: LAN Switching Technologies

QUESTION 9
Which three statements about RSTP are true? (Choose three.)

A. RSTP significantly reduces topology reconverging time after a link failure.
B. RSTP expands the STP port roles by adding the alternate and backup roles.
C. RSTP port states are blocking, discarding, learning, or forwarding.

D. RSTP provides a faster transition to the forwarding state on point-to-point links than STP does.
E. RSTP also uses the STP proposal-agreement sequence.
F. RSTP uses the same timer-based process as STP on point-to-point links.

Correct Answer: ABD
Section: LAN Switching Technologies

QUESTION 10
At which layer of the OSI model is RSTP used to prevent loops?

A. physical
B. data link
C. network
D. transport

Correct Answer: B
Section: LAN Switching Technologies

QUESTION 11
What is one benefit of PVST+?

A. PVST+ supports Layer 3 load balancing without loops.
B. PVST+ reduces the CPU cycles for all the switches in the network.
C. PVST+ allows the root switch location to be optimized per VLAN.
D. PVST+ automatically selects the root bridge location, to provide optimized bandwidth usage.

Correct Answer: C
Section: LAN Switching Technologies

QUESTION 12
What are three characteristics of the OSPF routing protocol? (Choose three.)

A. It converges quickly.
B. OSPF is a classful routing protocol.
C. It uses cost to determine the best route.
D. It uses the DUAL algorithm to determine the best route.
E. OSPF routers send the complete routing table to all directly attached routers.
F. OSPF routers discover neighbors before exchanging routing information.

Correct Answer: ACF
Section: IP Routing Technologies

QUESTION 13
Which statement is true, as relates to classful or classless routing?

A. Classful routing protocols send the subnet mask in routing updates.
B. RIPv1 and OSPF are classless routing protocols.
C. Automatic summarization at classful boundaries can cause problems on discontiguous subnets.
D. EIGRP and OSPF are classful routing protocols and summarize routes by default.

Correct Answer: C
Section: IP Routing Technologies

QUESTION 14

Which parameter or parameters are used to calculate OSPF cost in Cisco routers?

A. Bandwidth
B. Bandwidth and Delay
C. Bandwidth, Delay, and MTU
D. Bandwidth, MTU, Reliability, Delay, and Load

Correct Answer: A
Section: IP Routing Technologies

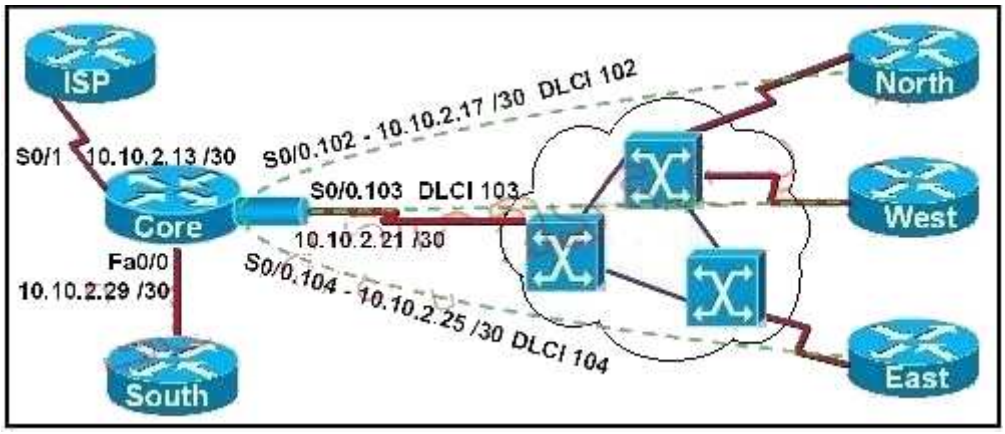
QUESTION 15
Which statements are true about EIGRP successor routes? (Choose two.)

A. A successor route is used by EIGRP to forward traffic to a destination.
B. Successor routes are saved in the topology table to be used if the primary route fails.
C. Successor routes are flagged as 'active' in the routing table.
D. A successor route may be backed up by a feasible successor route.
E. Successor routes are stored in the neighbor table following the discovery process.

Correct Answer: AD
Section: IP Routing Technologies

QUESTION 16
Refer to the exhibit.

The network associate is configuring OSPF on the Core router. All the connections to the branches should be participating in OSPF. The link to the ISP should NOT participate in OSPF and should only be advertised as the default route. What set of commands will properly configure the Core router?



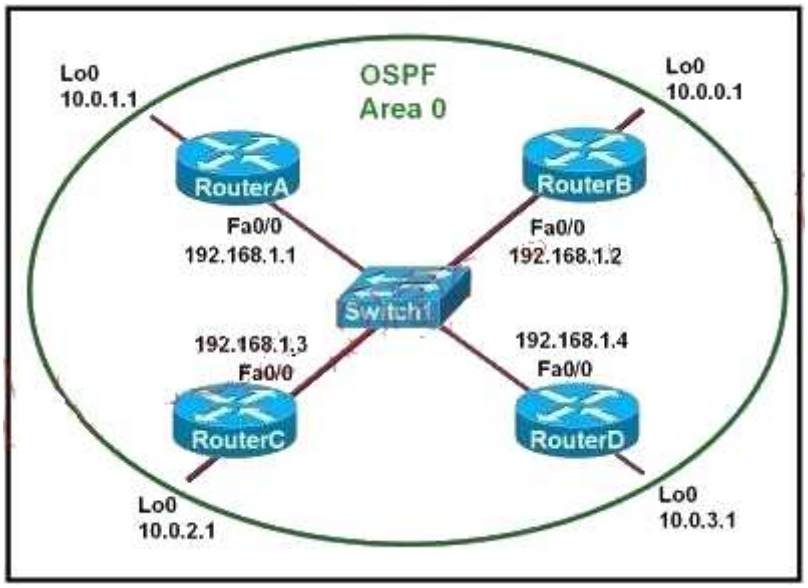
A. Core(config-router)# default-information originate
Core(config-router)# network 10.0.0.0 0.255.255.255 area 0
Core(config-router)# exit
Core(config)# ip route 0.0.0.0 0.0.0.0 10.10.2.14
B. Core(config-router)# default-information originate
Core(config-router)# network 10.10.2.13 0.0.0.242 area 0
Core(config-router)# exit
Core(config)# ip route 0.0.0.0 0.0.0.0 10.10.2.14
C. Core(config-router)# default-information originate
Core(config-router)# network 10.10.2.16 0.0.0.15 area 0
Core(config-router)# exit
Core(config)# ip route 0.0.0.0 0.0.0.0 10.10.2.14
D. Core(config-router)# default-information originate

```
Core(config-router)# network 10.10.2.32 0.0.0.31 area 0
Core(config-router)# exit
Core(config)# ip route 0.0.0.0 0.0.0.0 10.10.2.14
```

Correct Answer: C
Section: IP Routing Technologies

QUESTION 17
Refer to the exhibit.

Which two statements are true about the loopback address that is configured on RouterB? (Choose two.)



A. It ensures that data will be forwarded by RouterB.
B. It provides stability for the OSPF process on RouterB.
C. It specifies that the router ID for RouterB should be 10.0.0.1.
D. It decreases the metric for routes that are advertised from RouterB.
E. It indicates that RouterB should be elected the DR for the LAN.

Correct Answer: BC
Section: LAN Switching Technologies

QUESTION 18
What is the default maximum number of equal-cost paths that can be placed into the routing table of a Cisco OSPF router?

A. 2
B. 4
C. 16
D. unlimited

Correct Answer: B
Section: IP Routing Technologies

QUESTION 19
Which parameter would you tune to affect the selection of a static route as a backup, when a dynamic protocol is also being used?

A. hop count

B. administrative distance
C. link bandwidth
D. link delay
E. link cost

Correct Answer: B
Section: IP Routing Technologies

QUESTION 20
What are two drawbacks of implementing a link-state routing protocol? (Choose two.)

A. the sequencing and acknowledgment of link-state packets
B. the requirement for a hierarchical IP addressing scheme for optimal functionality
C. the high volume of link-state advertisements in a converged network
D. the high demand on router resources to run the link-state routing algorithm
E. the large size of the topology table listing all advertised routes in the converged network

Correct Answer: BD
Section: IP Routing Technologies

QUESTION 21
Which two are advantages of static routing when compared to dynamic routing? (Choose two.)

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

Correct Answer: BG
Section: IP Routing Technologies

QUESTION 22
Which command enables IPv6 forwarding on a Cisco router?

A. ipv6 local
B. ipv6 host
C. ipv6 unicast-routing
D. ipv6 neighbor

Correct Answer: C
Section: IP Services

QUESTION 23
A router is running three routing processes: RIP, OSPF, and EIGRP, each configured with default characteristics. Each process learns a route to the same remote network.
If there are no static routes to the destination and none of the routes were redistributed, which route will be placed in the IP routing table?

A. the route learned through EIGRP
B. the route learned through OSPF
C. the route learned through RIP

D. the route with the lowest metric
E. all three routes with the router load balancing

Correct Answer: A
Section: IP Routing Technologies

QUESTION 24
Refer to the exhibit.

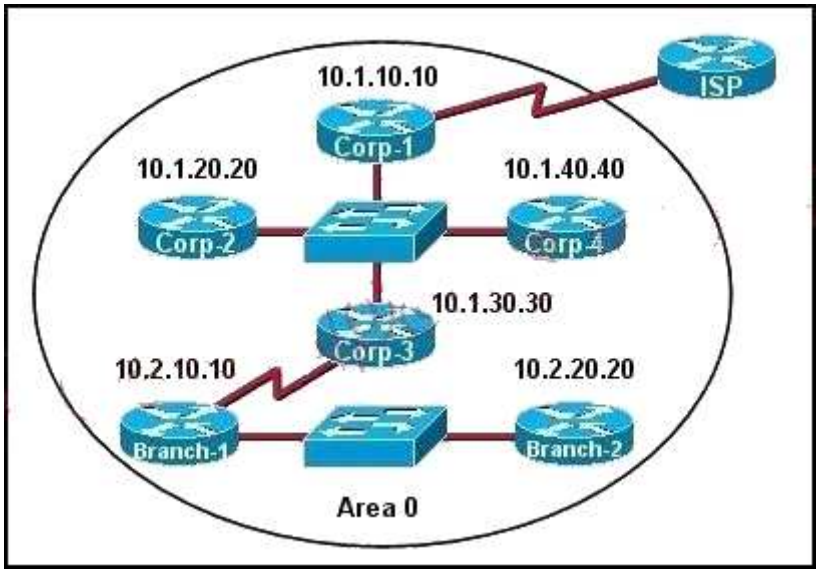
Given the output for this command, if the router ID has not been manually set, what router ID will OSPF use for this router?

```
RouterD# show ip interface brief
Interface        IP-Address     OK?  Method  Status  Protocol
FastEthernet0/0  192.168.5.3    YES  manual  up      up
FastEthernet0/1  10.1.1.2       YES  manual  up      up
Loopback0        172.16.5.1     YES  NVRAM   up      up
Loopback1        10.154.154.1   YES  NVRAM   up      up
```

A. 10.1.1.2
B. 10.154.154.1
C. 172.16.5.1
D. 192.168.5.3

Correct Answer: C
Section: IP Routing Technologies

QUESTION 25
The internetwork infrastructure of company XYZ consists of a single OSPF area as shown in the graphic. There is concern that a lack of router resources is impeding internetwork performance. As part of examining the router resources, the OSPF DRs need to be known. All the router OSPF priorities are at the default and the router IDs are shown with each router. Which routers are likely to have been elected as DR? (Choose two.)



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

E. Branch-1
F. Branch-2

Correct Answer: DF
Section: IP Routing Technologies

QUESTION 26
What does a router do if it has no EIGRP feasible successor route to a destination network and the successor route to that destination network is in active status?

A. It routes all traffic that is addressed to the destination network to the interface indicated in the routing table.
B. It sends a copy of its neighbor table to all adjacent routers.
C. It sends a multicast query packet to all adjacent neighbors requesting available routing paths to the destination network.
D. It broadcasts Hello packets to all routers in the network to re-establish neighbor adjacencies.

Correct Answer: C
Section: IP Routing Technologies

QUESTION 27
Which command is used to display the collection of OSPF link states?

A. show ip ospf link-state
B. show ip ospf lsa database
C. show ip ospf neighbors
D. show ip ospf database

Correct Answer: D
Section: IP Routing Technologies

QUESTION 28
What is the default administrative distance of OSPF?

A. 90
B. 100
C. 110
D. 120

Correct Answer: C
Section: IP Routing Technologies

QUESTION 29
The following configuration is applied to a Layer 2 Switch (Choose two).

```
interface fastethernet 0/4
switchport mode access
switchport port-security
switchport port-security mac-address 0000.1111.1111
switchport port-security maximum 2
switchport port-security
```

What is the result of the above configuration being applied to the switch?

A. A host with a mac address of 0000.1111.1111 and up to two other hosts can connect to FastEthernet 0/4 simultaneously

B. A host with a mac address of 0000.1111.1111 and one other host can connect to Fast Ethernet 0/4 simultaneously
C. Violating addresses are dropped and no record of the violation is kept
D. The switch can send an SNMP message to the network management station
E. The port is effectively shutdown

Correct Answer: BD
Section: IP Services

QUESTION 30
Refer to the exhibit.

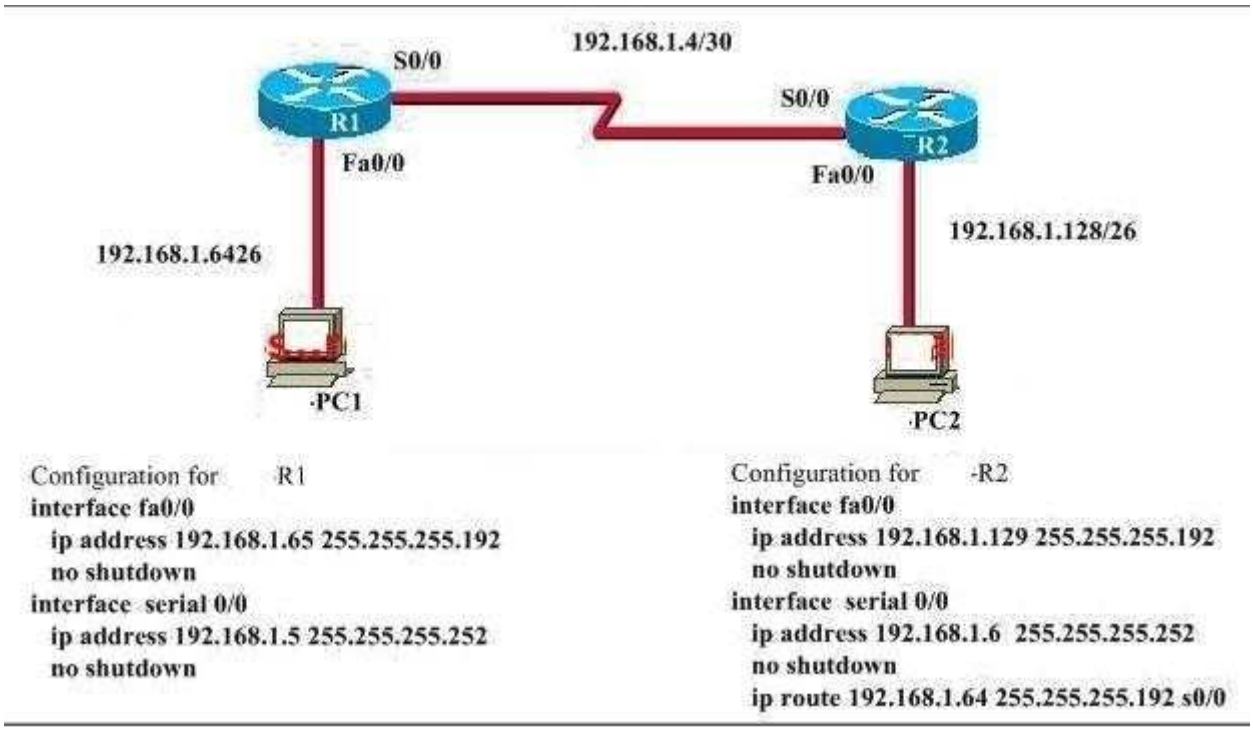
Which of these correctly describes the results of port security violation of an unknown packet?

```
Switch(config)#interface fastethernet 0/1
Switch(config-if)#switchport mode access
Switch(config-if)#switchport port-security
Switch(config-if)#switchport port-security maximum 3
Switch(config-if)#switchport port-security mac-address sticky
Switch(config-if)#end
```

A. port enabled; unknown packets dropped; no SNMP or syslog messages
B. port enabled; unknown packets dropped; SNMP or syslog messages
C. port disabled; no SNMP or syslog messages
D. port disabled; SNMP or syslog messages

Correct Answer: D
Section: IP Services

QUESTION 31
A technician pastes the configurations in the exhibit into the two new routers shown. Otherwise, the routers are configured with their default configurations. A ping from Host1 to Host2 fails, but the technician is able to ping the S0/0 interface of R2 from Host1. The configurations of the hosts have been verified as correct. What is the cause of the problem?



A. The serial cable on R1 needs to be replaced.
B. The interfaces on R2 are not configured properly.
C. R1 has no route to the 192.168.1.128 network.
D. The IP addressing scheme has overlapping subnetworks.
E. The ip subnet-zero command must be configured on both routers.

Correct Answer: C
Section: IP Routing Technologies

QUESTION 32
Refer to the exhibit.

What three actions will the switch take when a frame with an unknown source MAC address arrives at the interface? (Select three.)

```
Switch# show port-security interface fa0/20
Port Security              : Enabled
Port Status                : Secure-up
Violation Mode             : Restrict
Aging Time                 : 3 mins
Aging Type                 : Inactivity
SecureStatic Address Aging : Disabled
Maximum MAC Addresses      : 2
Total MAC Addresses        : 2
Configured MAC Addresses   : 0
Sticky MAC Addresses       : 2
Last Source Address:Vlan   : 0009.7C10.8E8C:50
Security Violation Count   : 1
```

A. Send an SNMP trap.
B. Send a syslog message.
C. Increment the Security Violation counter.
D. Forward the traffic.
E. Write the MAC address to the startup-config.
F. Shut down the port.

Correct Answer: ABC
Section: IP Services

QUESTION 33
What does the frame-relay interface-dlci command configure?

A. local DLCI on the subinterface
B. remote DLCI on the main interface
C. remote DCLI on the subinterface
D. local DLCI on the main interface

Correct Answer: A
Section: WAN Technologies

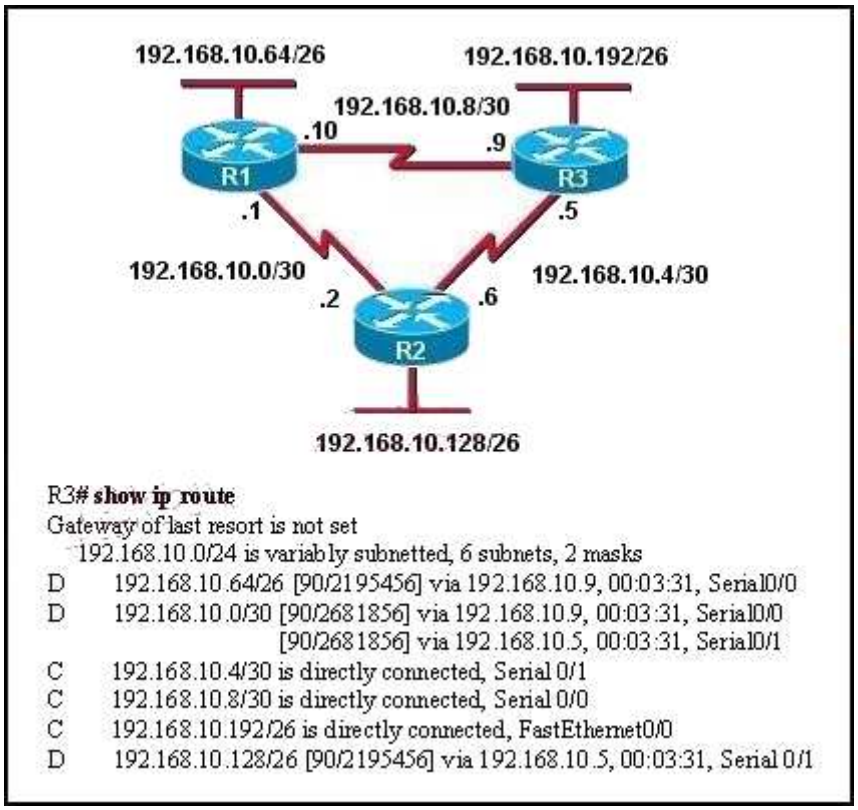
QUESTION 34
What can be done to secure the virtual terminal interfaces on a router? (Choose two.)

A. Administratively shut down the interface.
B. Physically secure the interface.
C. Create an access list and apply it to the virtual terminal interfaces with the access-group command.
D. Configure a virtual terminal password and login process.
E. Enter an access list and apply it to the virtual terminal interfaces using the access-class command.

Correct Answer: DE
Section: (none)

QUESTION 35
Refer to the exhibit.

Based on the exhibited routing table, how will packets from a host within the 192.168.10.192/26 LAN be forwarded to 192.168.10.1?

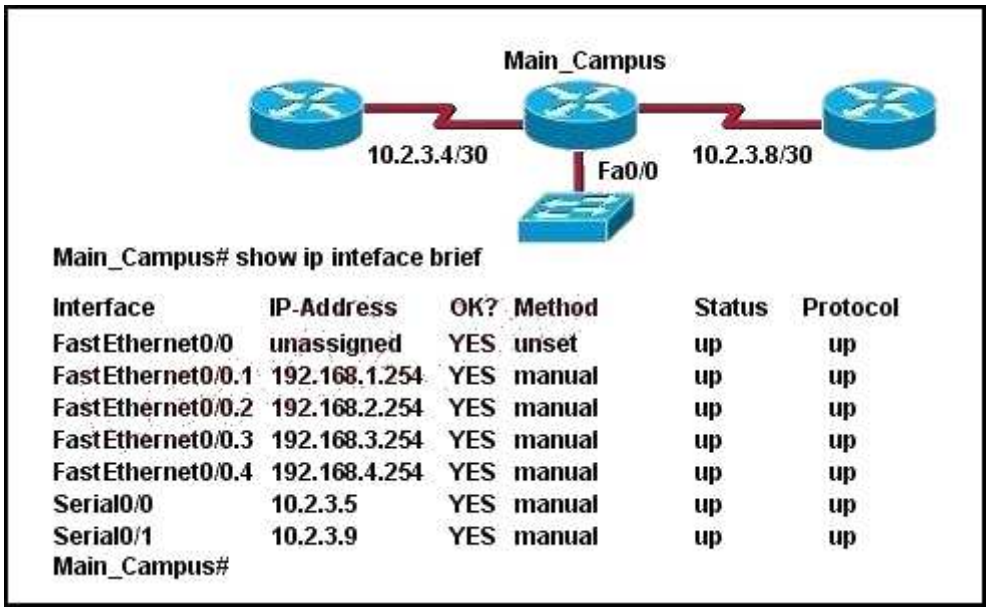


A. The router will forward packets from R3 to R2 to R1.
B. The router will forward packets from R3 to R1 to R2.
C. The router will forward packets from R3 to R2 to R1 AND from R3 to R1.
D. The router will forward packets from R3 to R1.

Correct Answer: C
Section: (none)

QUESTION 36
Refer to the exhibit.

What information about the interfaces on the Main_Campus router is true?

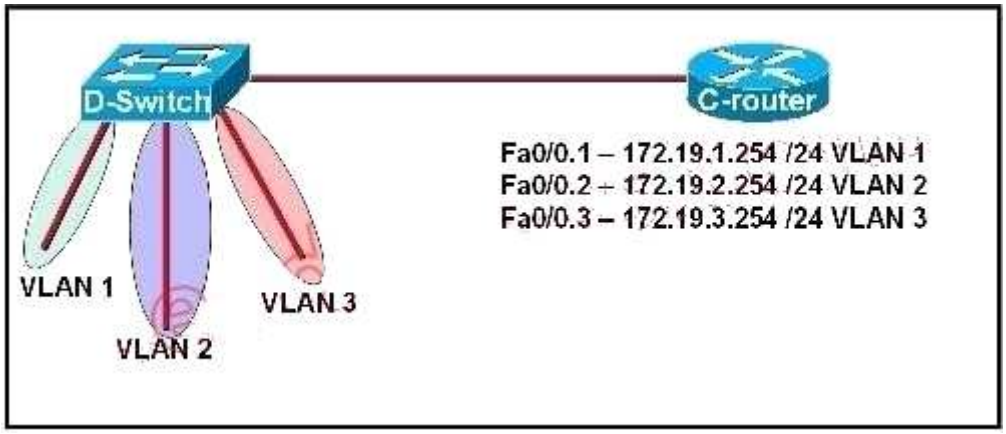


A. The LAN interfaces are configured on different subnets.
B. Interface FastEthernet 0/0 is configured as a trunk.
C. The Layer 2 protocol of interface Serial 0/1 is NOT operational.
D. The router is a modular router with five FastEthernet interfaces.
E. Interface FastEthernet 0/0 is administratively deactivated.

Correct Answer: B
Section: LAN Switching Technologies

QUESTION 37
Refer to the exhibit.

C-router is to be used as a "router-on-a-stick" to route between the VLANs. All the interfaces have been properly configured and IP routing is operational. The hosts in the VLANs have been configured with the appropriate default gateway. What is true about this configuration?



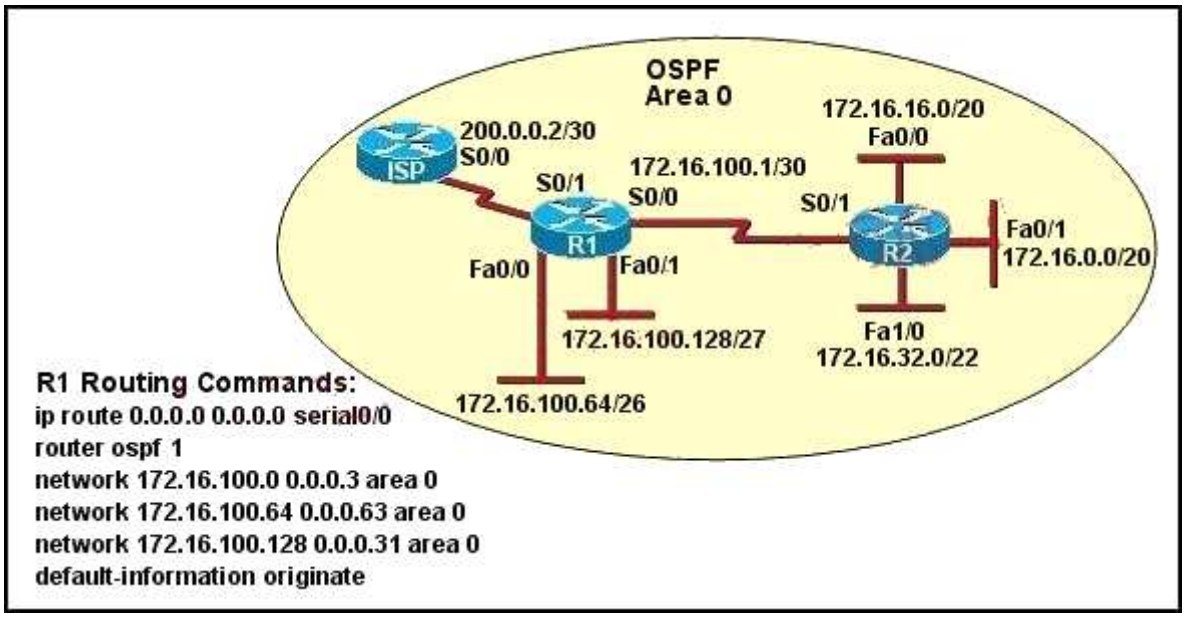
A. These commands need to be added to the configuration:
C-router(config)# router eigrp 123
C-router(config-router)# network 172.19.0.0
B. These commands need to be added to the configuration:
C-router(config)# router ospf 1
C-router(config-router)# network 172.19.0.0 0.0.3.255 area 0
C. These commands need to be added to the configuration:
C-router(config)# router rip
C-router(config-router)# network 172.19.0.0

D. No further routing configuration is required.

Correct Answer: D
Section: LAN Switching Technologies

QUESTION 38
Refer to the exhibit.

Assume that all router interfaces are operational and correctly configured. In addition, assume that OSPF has been correctly configured on router R2. How will the default route configured on R1 affect the operation of R2?

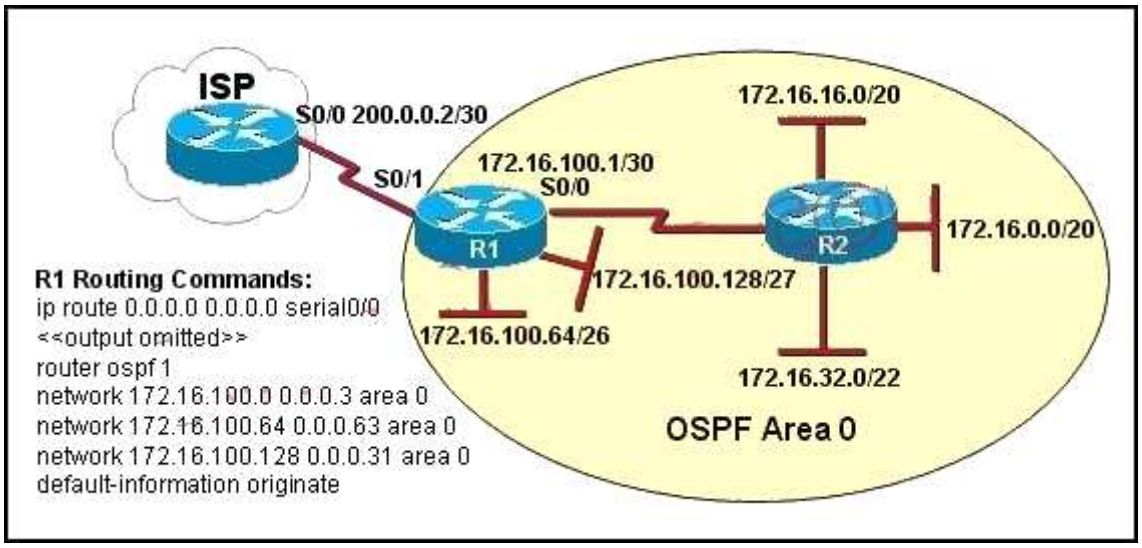


A. Any packet destined for a network that is not directly connected to router R1 will be dropped.
B. Any packet destined for a network that is not directly connected to router R2 will be dropped immediately.
C. Any packet destined for a network that is not directly connected to router R2 will be dropped immediately because of the lack of a gateway on R1.
D. The networks directly connected to router R2 will not be able to communicate with the 172.16.100.0, 172.16.100.128, and 172.16.100.64 subnetworks.
E. Any packet destined for a network that is not referenced in the routing table of router R2 will be directed to R1. R1 will then send that packet back to R2 and a routing loop will occur.

Correct Answer: E
Section: IP Routing Technologies

QUESTION 39
Refer to the exhibit.

Assume that all of the router interfaces are operational and configured correctly. How will router R2 be affected by the configuration of R1 that is shown in the exhibit?

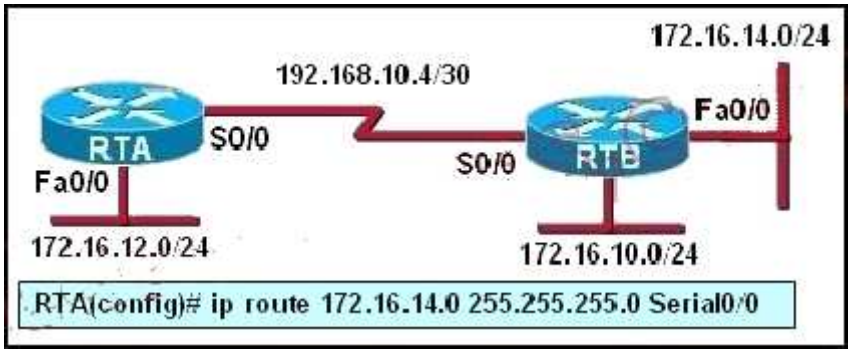


A. Router R2 will not form a neighbor relationship with R1.
B. Router R2 will obtain a full routing table, including a default route, from R1.
C. R2 will obtain OSPF updates from R1, but will not obtain a default route from R1.
D. R2 will not have a route for the directly connected serial network, but all other directly connected networks will be present, as well as the two Ethernet networks connected to R1.

Correct Answer: A
Section: IP Routing Technologies

QUESTION 40
Refer to the exhibit.

RTA is configured with a basic configuration. The link between the two routers is operational and no routing protocols are configured on either router. The line shown in the exhibit is then added to router RTA . Should interface Fa0/0 on router RTB shut down, what effect will the shutdown have on router RTA?



A. A route to 172.16.14.0/24 will remain in the RTA routing table.
B. A packet to host 172.16.14.225 will be dropped by router RTA
C. Router RTA will send an ICMP packet to attempt to verify the route.
D. Because router RTB will send a poison reverse packet to router RTA, RTA will remove the route.

Correct Answer: A
Section: IP Routing Technologies

QUESTION 41
Refer to the exhibit.

The show interfaces serial 0/1 command was issued on the R10-1 router. Based on the output displayed

which statement is correct?

```
R10-1# show interfaces serial 0/1
Serial0/1 is up, line protocol is up
  Hardware is cxBus Serial
  MTU 1500 bytes, BW 1544 Kbit, DLY 20000 usec, reliability 255/255,
        txload 1/255, rxload 1/255
  Encapsulation HDLC, crc 16, loopback not set
  Keepalive set (10 sec)
  Last input 00:00:09, output 00:00:07, output hang 5w2d
  Last clearing of "show interface" counters 00:39:17
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: weighted fair
  Output queue: 0/1000/64/0 (size/max total/threshold/drops)
    Conversations  0/1/256 (active/max active/max total)
    Reserved Conversations 0/0 (allocated/max allocated)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    277 packets input, 16980 bytes, 0 no buffer
    Received 0 broadcasts, 0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
    277 packets output, 17106 bytes, 0 underruns
    0 output errors, 0 collisions, 0 interface resets
    0 output buffer failures, 0 output buffers swapped out
    0 carrier transitions
    RTS up, CTS up, DTR up, DCD up, DSR up
```

A. The cable connected to the serial 0/1 interface of the R10-1 router is a DTE cable.
B. The R10-1 router can ping the router interface connected to the serial 0/1 interface.
C. The clock rate used for interface serial 0/1 of the R10-1 router is 1,544,000 bits per second.
D. The CSU used with the serial 0/1 interface of the R10-1 router has lost connection to the service provider.
E. The interface of the remote router connected to the serial 0/1 interface of the R10-1 router is using the default serial interface encapsulation.

Correct Answer: E
Section: WAN Technologies

QUESTION 42
Which three statements are typical characteristics of VLAN arrangements? (Choose three.)

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

Correct Answer: BDE
Section: LAN Switching Technologies

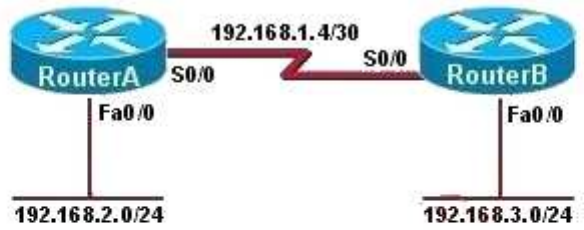
QUESTION 43
The output of the show frame-relay pvc command shows "PVC STATUS = INACTIVE". What does this mean?

A. The PVC is configured correctly and is operating normally, but no data packets have been detected for more than five minutes.
B. The PVC is configured correctly, is operating normally, and is no longer actively seeking the address of the remote router.
C. The PVC is configured correctly, is operating normally, and is waiting for interesting traffic to trigger a call to the remote router.
D. The PVC is configured correctly on the local switch, but there is a problem on the remote end of the PVC
E. The PVC is not configured on the local switch.

Correct Answer: D
Section: WAN Technologies

QUESTION 44
Refer to the exhibit.

Hosts in network 192.168.2.0 are unable to reach hosts in network 192.168.3.0. Based on the output from RouterA, what are two possible reasons for the failure? (Choose two.)




```
RouterA# show ip interface brief
Interface          IP-Address     OK?  Method  Status                  Protocol
FastEthernet0/0    192.168.2.1    YES  manual  up                      up
Serial0/0          192.168.1.5    YES  manual  up                      down
Serial0/1          unassigned     YES  manual  administratively down   down
```

A. The cable that is connected to S0/0 on RouterA is faulty.
B. Interface S0/0 on RouterB is administratively down.
C. Interface S0/0 on RouterA is configured with an incorrect subnet mask.
D. The IP address that is configured on S0/0 of RouterB is not in the correct subnet.
E. Interface S0/0 on RouterA is not receiving a clock signal from the CSU/DSU.
F. The encapsulation that is configured on S0/0 of RouterB does not match the encapsulation that is configured on S0/0 of RouterA

Correct Answer: EF
Section: IP Routing Technologies

QUESTION 45
Refer to the exhibit.

The output that is shown is generated at a switch. Which three statements are true? (Choose three.)

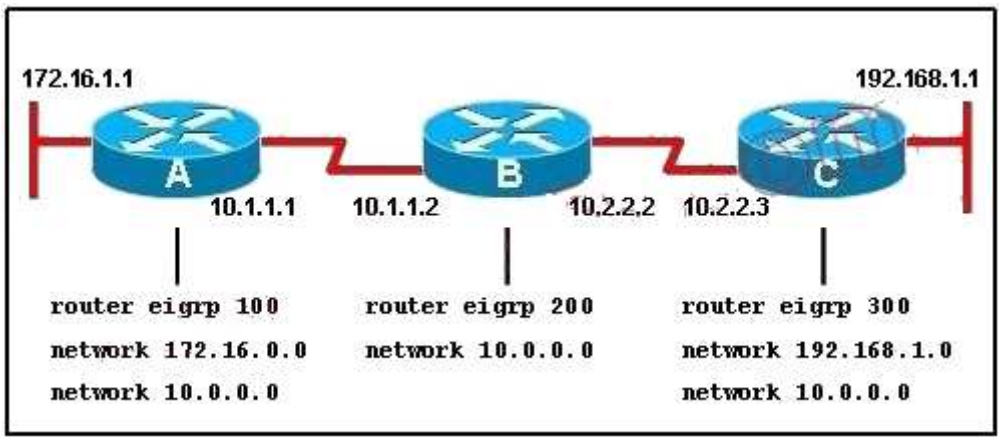
```
Switch# show spanning-tree vlan 30
VLAN0030
Spanning tree enabled protocol rstp
Root ID Priority 24606
Address 00d0.047b.2800
This bridge is the root
Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
Bridge ID Priority 24606 (priority 24576 sys-id-ext 30)
Address 00d0.047b.2800
Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
Aging Time 300
Interface   Role  Sts   Cost  Prio.Nbr    Type
---------   ---------   ---   -------     ----- ----------
Fa1/1       Desg FWD    4     128.1       p2p
Fa1/2       Desg FWD    4     128.2       p2p
Fa5/1       Desg FWD    4     128.257     p2p
```

A. All ports will be in a state of discarding, learning, or forwarding.
B. Thirty VLANs have been configured on this switch.
C. The bridge priority is lower than the default value for spanning tree.
D. All interfaces that are shown are on shared media.
E. All designated ports are in a forwarding state.
F. This switch must be the root bridge for all VLANs on this switch.

Correct Answer: ACE
Section: LAN Switching Technologies

QUESTION 46
Refer to the exhibit.

When running EIGRP, what is required for RouterA to exchange routing updates with RouterC?



A. AS numbers must be changed to match on all the routers
B. Loopback interfaces must be configured so a DR is elected
C. The no auto-summary command is needed on Router A and Router C
D. Router B needs to have two network statements, one for each connected network

Correct Answer: A
Section: IP Routing Technologies

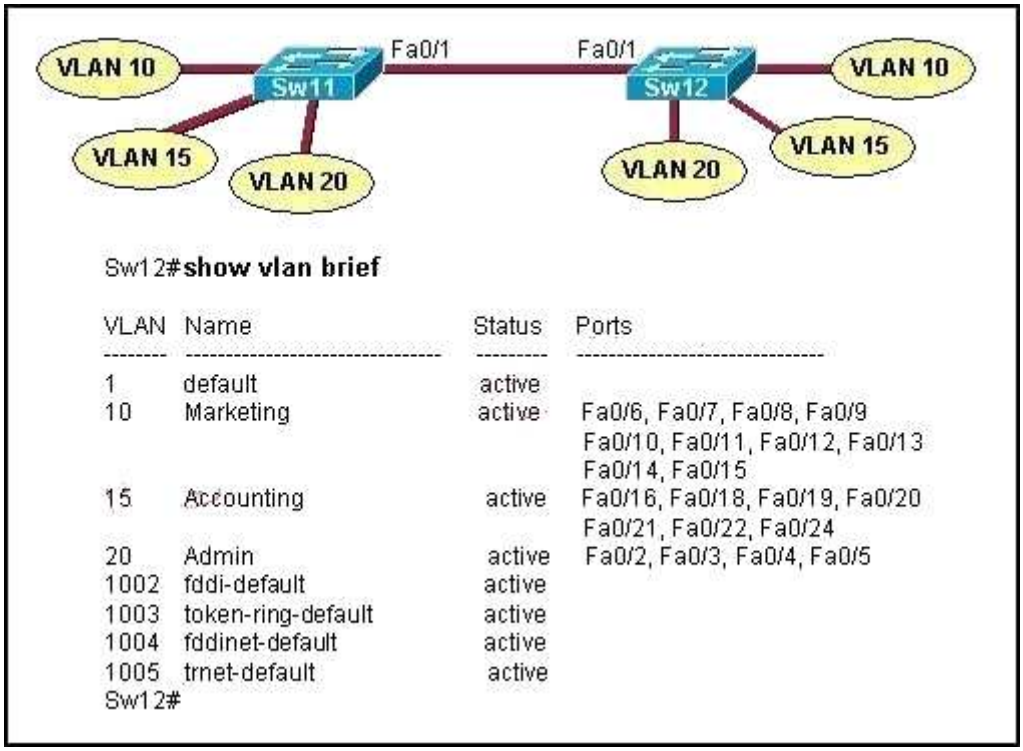
QUESTION 47
Which term describes a spanning-tree network that has all switch ports in either the blocking or fowarding state?

A. converged
B. redundant
C. provisioned
D. spanned

Correct Answer: A
Section: LAN Switching Technologies

QUESTION 48
Refer to the exhibit.

A technician has configured the FastEthernet 0/1 interface on Sw11 as an access link in VLAN 1. Based on the output from the show vlan brief command issued on Sw12, what will be the result of making this change on Sw11?

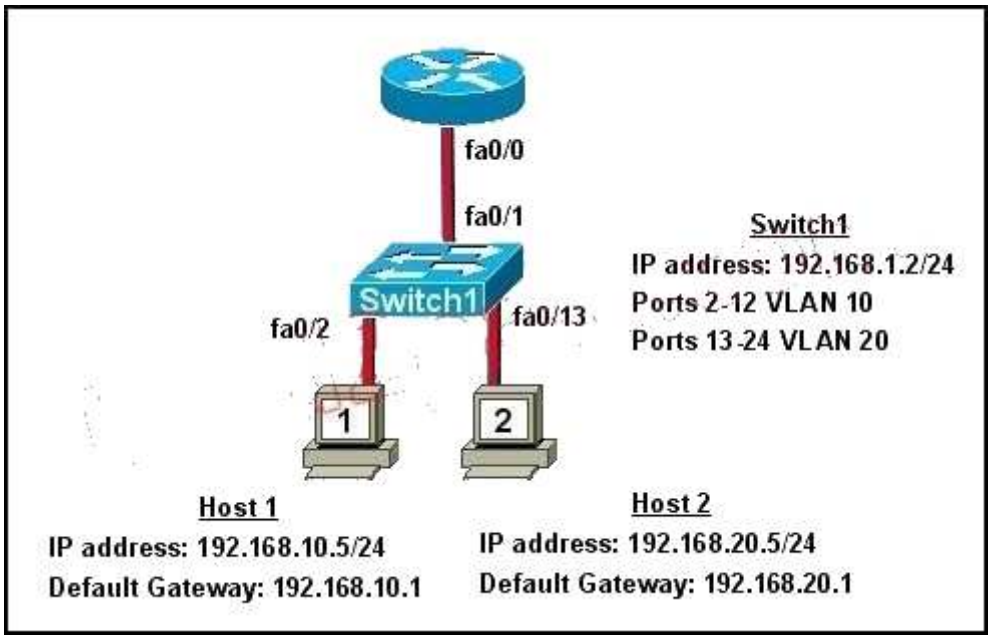


A. Only the hosts in VLAN 1 on the two switches will be able to communicate with each other.
B. The hosts in all VLANs on the two switches will be able to communicate with each other.
C. Only the hosts in VLAN 10 and VLAN 15 on the two switches will be able to communicate with each other.
D. Hosts will not be able to communicate between the two switches.

Correct Answer: D
Section: LAN Switching Technologies

QUESTION 49
Refer to the exhibit.

What commands must be configured on the 2950 switch and the router to allow communication between host 1 and host 2? (Choose two.)



A. Router(config)# interface fastethernet 0/0
Router(config-if)# ip address 192.168.1.1 255.255.255.0
Router(config-if)# no shut down

B. Router(config)# interface fastethernet 0/0
Router(config-if)# no shut down
Router(config)# interface fastethernet 0/0.1
Router(config-subif)# encapsulation dot1q 10
Router(config-subif)# ip address 192.168.10.1 255.255.255.0
Router(config)# interface fastethernet 0/0.2
Router(config-subif)# encapsulation dot1q 20
Router(config-subif)# ip address 192.168.20.1 255.255.255.0

C. Router(config)# router eigrp 100
Router(config-router)# network 192.168.10.0
Router(config-router)# network 192.168.20.0

D. Switch1(config)# vlan database
Switch1(config-vlan)# vtp domain XYZ
Switch1(config-vlan)# vtp server

E. Switch1(config)# interface fastethernet 0/1
Switch1(config-if)# switchport mode trunk

F. Switch1(config)# interface vlan 1
Switch1(config-if)# ip default-gateway 192.168.1.1

Correct Answer: BE
Section: LAN Switching Technologies

QUESTION 50
What command is used to verify the DLCI destination address in a Frame Relay static configuration?

A. show frame-relay pvc
B. show frame-relay lmi
C. show frame-relay map
D. show frame relay end-to-end

Correct Answer: C
Section: WAN Technologies

QUESTION 51

Refer to the exhibit.

How will the router handle a packet destined for 192.0.2.156?

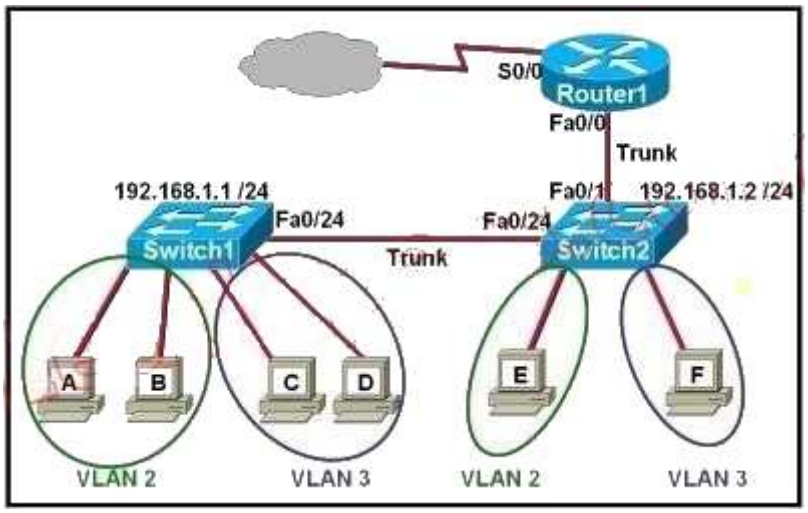
```
router# show ip route
  Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
  D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
  N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
  E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
  i -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

Gateway of last resort is 192.168.4.1 to network 0.0.0.0

 10.0.0.0/24 is subnetted, 3 subnets
C      10.0.2.0 is directly connected, Ethernet1
D      10.0.3.0 [90/2195456] via 192.168.1.2, 00:03:01, Serial0
D      10.0.4.0 [90/2195456] via 192.168.3.1, 00:03:01, Serial1
C   192.168.1.0/24 is directly connected, Serial0
D   192.168.2.0/24 [90/2681856] via 192.168.1.2, 00:03:01, Serial0
              [90/2681856] via 192.168.3.1, 00:03:01, Serial1
C   192.168.3.0/24 is directly connected, Serial1
C   192.168.4.0/24 is directly connected, Serial2
```

A. The router will drop the packet.
B. The router will return the packet to its source.
C. The router will forward the packet via Serial2.
D. The router will forward the packet via either Serial0 or Serial1.

Correct Answer: C
Section: IP Routing Technologies

QUESTION 52
Refer to the exhibit.

Which two statements are true about interVLAN routing in the topology that is shown in the exhibit? (Choose two.)



A. Host E and host F use the same IP gateway address.
B. Router1 and Switch2 should be connected via a crossover cable.
C. Router1 will not play a role in communications between host A and host D.
D. The FastEthernet 0/0 interface on Router1 must be configured with subinterfaces.
E. Router1 needs more LAN interfaces to accommodate the VLANs that are shown in the exhibit.
F. The FastEthernet 0/0 interface on Router1 and the FastEthernet 0/1 interface on Switch2 trunk ports must be configured using the same encapsulation type.

Correct Answer: DF
Section: LAN Switching Technologies

QUESTION 53
What is the advantage of using a multipoint interface instead of point-to-point subinterfaces when configuring a Frame Relay hub in a hub-and-spoke topology?

A. It avoids split-horizon issues with distance vector routing protocols.
B. IP addresses can be conserved if VLSM is not being used for subnetting.
C. A multipoint interface offers greater security compared to point-to-point subinterface configurations.
D. The multiple IP network addresses required for a multipoint interface provide greater addressing flexibility over point-to-point configurations.

Correct Answer: B
Section: WAN Technologies

QUESTION 54
Which two statistics appear in show frame-relay map output? (Choose two.)

A. the number of BECN packets that are received by the router
B. the value of the local DLCI
C. the number of FECN packets that are received by the router
D. the status of the PVC that is configured on the router
E. the IP address of the local router

Correct Answer: BD
Section: WAN Technologies

QUESTION 55
Which protocol is an open standard protocol framework that is commonly used in VPNs, to provide secure end-to-end communications?

A. RSA
B. L2TP
C. IPsec
D. PPTP

Correct Answer: C
Section: WAN Technologies

QUESTION 56
At which layer of the OSI model does PPP perform?

A. Layer 2
B. Layer 3

C. Layer 4
D. Layer 5

Correct Answer: A
Section: WAN Technologies

QUESTION 57
The command show frame-relay map gives the following output:

Serial 0 (up): ip 192.168.151.4 dlci 122, dynamic, broadcast, status defined, active

Which statements represent what is shown? (Choose three.)

A. 192.168.151.4 represents the IP address of the remote router
B. 192.168.151.4 represents the IP address of the local serial interface
C. DLCI 122 represents the interface of the remote serial interface
D. DLCI 122 represents the local number used to connect to the remote address
E. broadcast indicates that a dynamic routing protocol such as RIP v1 can send packets across this PVC
F. active indicates that the ARP process is working

Correct Answer: ADE
Section: WAN Technologies

QUESTION 58
What can be done to Frame Relay to resolve split-horizon issues? (Choose two.)

A. Disable Inverse ARP.
B. Create a full-mesh topology.
C. Develop multipoint subinterfaces.
D. Configure point-to-point subinterfaces.
E. Remove the broadcast keyword from the frame-relay map command.

Correct Answer: BD
Section: WAN Technologies

QUESTION 59
What are three reasons that an organization with multiple branch offices and roaming users might implement a Cisco VPN solution instead of point-to-point WAN links? (Choose three.)

A. reduced cost
B. better throughput
C. broadband incompatibility
D. increased security
E. scalability
F. reduced latency

Correct Answer: ADE
Section: WAN Technologies

QUESTION 60
Which command is used to enable CHAP authentication, with PAP as the fallback method, on a serial interface?

A. Router(config-if)# ppp authentication chap fallback ppp

B. Router(config-if)# ppp authentication chap pap
C. Router(config-if)# authentication ppp chap fallback ppp
D. Router(config-if)# authentication ppp chap pap

Correct Answer: B
Section: WAN Technologies

QUESTION 61
What is the result of issuing the frame-relay map ip 192.168.1.2 202 broadcast command?

A. defines the destination IP address that is used in all broadcast packets on DCLI 202
B. defines the source IP address that is used in all broadcast packets on DCLI 202
C. defines the DLCI on which packets from the 192.168.1.2 IP address are received
D. defines the DLCI that is used for all packets that are sent to the 192.168.1.2 IP address

Correct Answer: D
Section: WAN Technologies

QUESTION 62
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

Correct Answer: B
Section: WAN Technologies

QUESTION 63
Which encapsulation type is a Frame Relay encapsulation type that is supported by Cisco routers?

A. IETF
B. ANSI Annex D
C. Q9333-A Annex A
D. HDLC

Correct Answer: A
Section: WAN Technologies

QUESTION 64
A network administrator needs to configure a serial link between the main office and a remote location. The router at the remote office is a non-Cisco router. How should the network administrator configure the serial interface of the main office router to make the connection?

A. Main(config)# interface serial 0/0
   Main(config-if)# ip address 172.16.1.1 255.255.255.252
   Main(config-if)# no shut
B. Main(config)# interface serial 0/0
   Main(config-if)# ip address 172.16.1.1 255.255.255.252
   Main(config-if)# encapsulation ppp
   Main(config-if)# no shut
C. Main(config)# interface serial 0/0
   Main(config-if)# ip address 172.16.1.1 255.255.255.252

Main(config-if)# encapsulation frame-relay
Main(config-if)# authentication chap
Main(config-if)# no shut

D. Main(config)# interface serial 0/0
Main(config-if)#ip address 172.16.1.1 255.255.255.252
Main(config-if)#encapsulation ietf
Main(config-if)# no shut

Correct Answer: B
Section: WAN Technologies

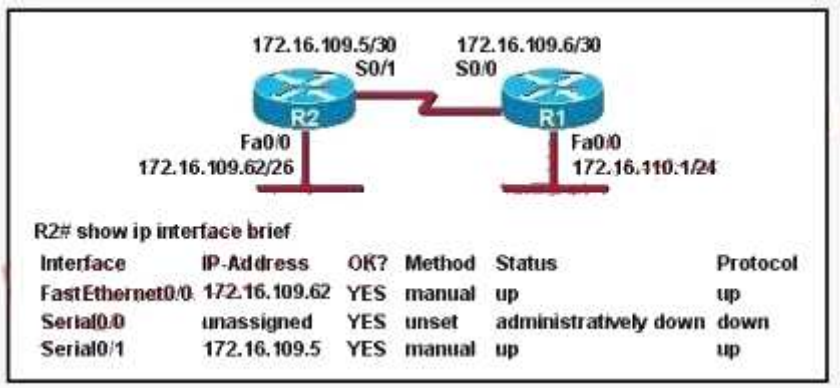
QUESTION 65
Which PPP subprotocol negotiates authentication options?

A. NCP
B. ISDN
C. SLIP
D. LCP
E. DLCI

Correct Answer: D
Section: WAN Technologies

QUESTION 66
Refer to the exhibit.

Assuming that the entire network topology is shown, what is the operational status of the interfaces of R2 as indicated by the command output shown?



A. One interface has a problem.
B. Two interfaces have problems.
C. The interfaces are functioning correctly.
D. The operational status of the interfaces cannot be determined from the output shown.

Correct Answer: C
Section: IP Routing Technologies

QUESTION 67
Which two statements describe the process identifier that is used in the command to configure OSPF on a router? (Choose two.)

Router(config)# router ospf 1

A. All OSPF routers in an area must have the same process ID.

B. Only one process number can be used on the same router.
C. Different process identifiers can be used to run multiple OSPF processes
D. The process number can be any number from 1 to 65,535.
E. Hello packets are sent to each neighbor to determine the processor identifier.

Correct Answer: CD
Section: IP Routing Technologies

QUESTION 68
Refer to the exhibit.

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

```
router#show ip eigrp topology 10.0.0.5 255.255.255.255
IP-EIGRP topology entry for 10.0.0.5/32  State is Passive, Query
origin flag is 1, 1 Successor(s), FD is 41152000
```

A.
```
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 255/255
        Load 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 255/255
        Load is 1/255
        Minimum MTU is 1500
        Hop count is 1
```

C.
```
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 255/255
        Load 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 0x0
      Composite metric is (46763776/46251776), Route is External
      Vector metric:
        Minimum bandwidth is 56 Kbit
        Total delay is 41000 microseconds
        Reliability is 255/255
        Load is 1/255
        Minimum MTU is 1500
        Hop count is 2
```

Correct Answer: B
Section: IP Routing Technologies

QUESTION 69
Which three of these statements regarding 802.1Q trunking are correct? (Choose three.)

A. 802.1Q native VLAN frames are untagged by default.
B. 802.1Q trunking ports can also be secure ports.
C. 802.1Q trunks can use 10 Mb/s Ethernet interfaces.
D. 802.1Q trunks require full-duplex, point-to-point connectivity.
E. 802.1Q trunks should have native VLANs that are the same at both ends.

Correct Answer: ACE
Section: LAN Switching Technologies

QUESTION 70
Which two options are valid WAN connectivity methods? (Choose two.)

A. PPP
B. WAP
C. DSL
D. L2TPv3
E. Ethernet

Correct Answer: AC
Section: WAN Technologies

QUESTION 71
Refer to the exhibit.

Which WAN protocol is being used?

```
RouterA#show interface pos8/0/0
POS8/0/0 is up, line protocol is up
  Hardware is Packet over Sonet
  Keepalive set (10 sec)
  Scramble disabled
  LMI enq sent  2474988, LMI stat recvd 2474969, LMI upd recvd 0, DTE LMI up
  Broadcast queue 0/256, broadcasts sent/dropped 25760668/0, interface broadcasts 25348176
  Last input 00:00:00, output 00:00:00, output hang never
  Last clearing of "show interface" counters 40w6d
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 39000 bits/sec, 60 packets/sec
     63153396 packets input, 4389121455 bytes, 0 no buffer
     Received 0 broadcasts (0 IP multicast)
     0 runts, 0 giants, 0 throttles
              0 parity
     44773 input errors, 39138 CRC, 0 frame, 0 overrun, 0 ignored, 27 abort
     945596253 packets output, 62753244360 bytes, 0 underruns
     0 output errors, 0 applique, 0 interface resets
     0 output buffer failures, 0 output buffers swapped out
     0 carrier transitions
```

A. ATM
B. HDLC
C. Frame Relay
D. PPP

Correct Answer: C
Section: WAN Technologies

QUESTION 72
What occurs on a Frame Relay network when the CIR is exceeded?

A. All TCP traffic is marked discard eligible.
B. All UDP traffic is marked discard eligible and a BECN is sent.
C. All TCP traffic is marked discard eligible and a BECN is sent.
D. All traffic exceeding the CIR is marked discard eligible.

Correct Answer: D
Section: WAN Technologies

QUESTION 73
What are two characteristics of Frame Relay point-to-point subinterfaces? (Choose two.)

A. They create split-horizon issues.
B. They require a unique subnet within a routing domain.
C. They emulate leased lines.
D. They are ideal for full-mesh topologies.
E. They require the use of NBMA options when using OSPF.

Correct Answer: BC
Section: WAN Technologies

QUESTION 74
Which two statements about using the CHAP authentication mechanism in a PPP link are true? (Choose two.)

A. CHAP uses a two-way handshake.
B. CHAP uses a three-way handshake.
C. CHAP authentication periodically occurs after link establishment.
D. CHAP authentication passwords are sent in plaintext.
E. CHAP authentication is performed only upon link establishment.

F. CHAP has no protection from playback attacks.

Correct Answer: BC
Section: WAN Technologies

QUESTION 75
Which command allows you to verify the encapsulation type (CISCO or IETF) for a Frame Relay link?

A. show frame-relay lmi
B. show frame-relay map
C. show frame-relay pvc
D. show interfaces serial

Correct Answer: B
Section: WAN Technologies

QUESTION 76
What is the purpose of Inverse ARP?

A. to map a known IP address to a MAC address
B. to map a known DLCI to a MAC address
C. to map a known MAC address to an IP address
D. to map a known DLCI to an IP address
E. to map a known IP address to a SPID
F. to map a known SPID to a MAC address

Correct Answer: D
Section: WAN Technologies

QUESTION 77
Refer to the exhibit.

A network associate has configured OSPF with the command:

City(config-router)# network 192.168.12.64 0.0.0.63 area 0

After completing the configuration, the associate discovers that not all the interfaces are participating in OSPF. Which three of the interfaces shown in the exhibit will participate in OSPF according to this configuration statement? (Choose three.)

```
City#show ip interface brief

Interface          IP-Address      OK?  Method  Status   Protocol
FastEthernet0/0    192.168.12.48   YES  manual  up       up
FastEthernet0/1    192.168.12.65   YES  manual  up       up
Serial0/0          192.168.12.121  YES  manual  up       up
Serial0/1          unassigned      YES  unset   up       up
Serial0/1.102      192.168.12.125  YES  manual  up       up
Serial0/1.103      192.168.12.129  YES  manual  up       up
Serial0/1.104      192.168.12.133  YES  manual  up       up
City#
```

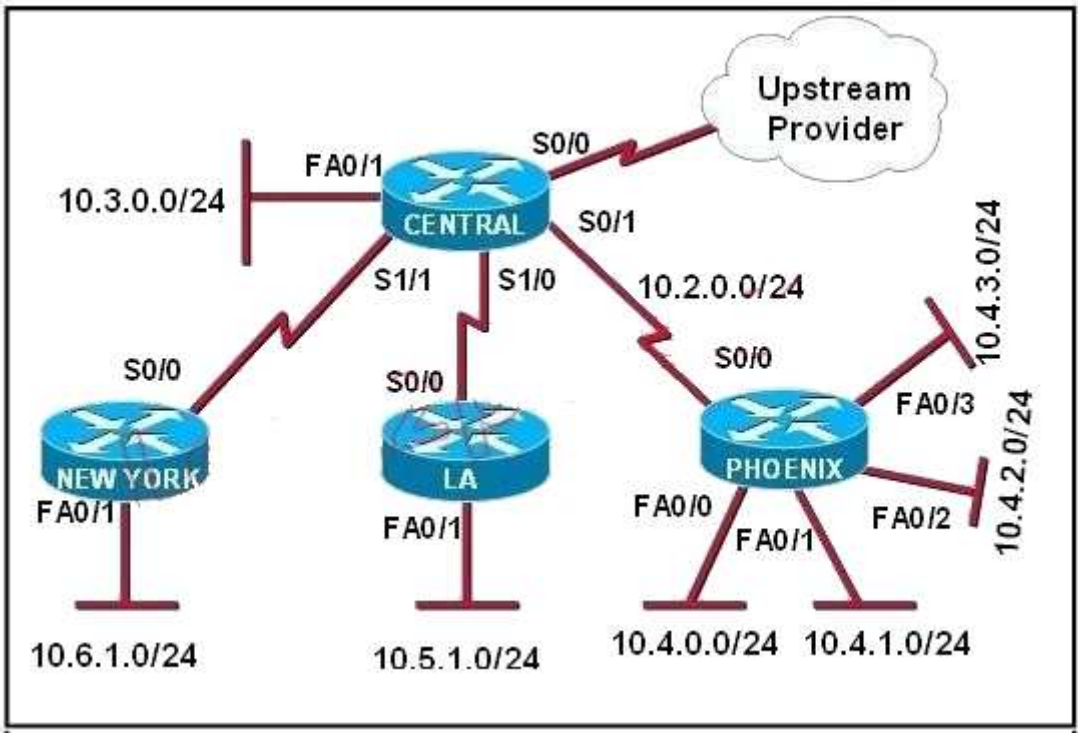
A. FastEthernet0 /0
B. FastEthernet0 /1

C. Serial0/0
D. Serial0/1.102
E. Serial0/1.103
F. Serial0/1.104

Correct Answer: BCD
Section: IP Routing Technologies

QUESTION 78
Refer to the exhibit.

The Lakeside Company has the internetwork in the exhibit. The administrator would like to reduce the size of the routing table on the Central router. Which partial routing table entry in the Central router represents a route summary that represents the LANs in Phoenix but no additional subnets?



A. 10.0.0.0/22 is subnetted, 1 subnets
D 10.0.0.0 [90/20514560] via 10.2.0.2, 6w0d, Serial0/1
B. 10.0.0.0/28 is subnetted, 1 subnets
D 10.2.0.0 [90/20514560] via 10.2.0.2, 6w0d, Serial0/1
C. 10.0.0.0/30 is subnetted, 1 subnets
D 10.2.2.0 [90/20514560] via 10.2.0.2, 6w0d, Serial0/1
D. 10.0.0.0/22 is subnetted, 1 subnets
D 10.4.0.0 [90/20514560] via 10.2.0.2, 6w0d, Serial0/1
E. 10.0.0.0/28 is subnetted, 1 subnets
D 10.4.4.0 [90/20514560] via 10.2.0.2, 6w0d, Serial0/1
F. 10.0.0.0/30 is subnetted, 1 subnets
D 10.4.4.4 [90/20514560] via 10.2.0.2, 6w0d, Serial0/1

Correct Answer: D
Section: IP Routing Technologies

QUESTION 79
What information does a router running a link-state protocol use to build and maintain its topological database? (Choose two.)

A. hello packets
B. SAP messages sent by other routers
C. LSAs from other routers
D. beacons received on point-to-point links
E. routing tables received from other link-state routers
F. TTL packets from designated routers

Correct Answer: AC
Section: IP Routing Technologies

QUESTION 80
Which commands are required to properly configure a router to run OSPF and to add network 192.168.16.0/24 to OSPF area 0? (Choose two.)

A. Router(config)# router ospf 0
B. Router(config)# router ospf 1
C. Router(config)# router ospf area 0
D. Router(config-router)# network 192.168.16.0 0.0.0.255 0
E. Router(config-router)# network 192.168.16.0 0.0.0.255 area 0
F. Router(config-router)# network 192.168.16.0 255.255.255.0 area 0

Correct Answer: BE
Section: IP Routing Technologies

QUESTION 81
Which type of EIGRP route entry describes a feasible successor?

A. a backup route, stored in the routing table
B. a primary route, stored in the routing table
C. a backup route, stored in the topology table
D. a primary route, stored in the topology table

Correct Answer: C
Section: IP Routing Technologies

QUESTION 82
Drag and Drop Question

Drag each description on the left to the appropriate term on the right. Not all the descriptions are used.

Select and Place:

prevents invalid updates from looping the internetwork indefinitely	holddown time
causes a routing protocol to advertise an infinite metric for a failed route	split horizon
prevents a router from improperly reinstating a route from a regular routing update	defining a maxim
prevents information about a route from being sent in the direction from which the route was learned	route poisonin
prevents, via the use of logical subdivisions, routing updates from propagating the internetwork	triggered updat
decreases convergence time by immediately sending route information in response to a topology change	

Correct Answer:

prevents invalid updates from looping the internetwork indefinitely	prevents a router from improperly reinstating update
causes a routing protocol to advertise an infinite metric for a failed route	prevents information about a route from be which the route was
prevents a router from improperly reinstating a route from a regular routing update	prevents invalid updates from looping th
prevents information about a route from being sent in the direction from which the route was learned	causes a routing protocol to advertise an i
prevents, via the use of logical subdivisions, routing updates from propagating the internetwork	decreases convergence time by immediate response to a topolog
decreases convergence time by immediately sending route information in response to a topology change	

Section: (none)

QUESTION 83
Drag and Drop Question

Drag the term on the left to its definition on the right (Not all options are used.)

Select and Place:

Drag the term on the left to its definition on the right. (Not all options are used.)

holddown timer	A router learns from its neighbor sends an update back to the nei ro
poison reverse	The packets flooded when a topol routers to update their topologica
count to infinity	This prevents sending informatio interface that originally
LSA	For a given period, this causes th poorer metrics
split horizon	

Correct Answer:

Drag the term on the left to its definition on the right. (Not all options are used.)

holddown timer	poison
poison reverse	L
count to infinity	split
LSA	holddo
split horizon	

Section: (none)

QUESTION 84
Drag and Drop Question

Drag the description on the left to the routing protocol on the right. (Not all options are used.)

Select and Place:

Drag the description on the left to the routing protocol on the right. (Not all options are used.)

- is vendor-specific
- uses cost as its metric
- uses hop count as its metric
- uses the Bellman-Ford algorithm
- elects a DR on each multiaccess network
- has a default administrative distance of 90

EIGRP

OSPF

Correct Answer:

Drag the description on the left to the routing protocol on the right. (Not all options are used.)

- is vendor-specific
- uses cost as its metric
- uses hop count as its metric
- uses the Bellman-Ford algorithm
- elects a DR on each multiaccess network
- has a default administrative distance of 90

EIGRP

- is vendor-specif
- has a default administrative

OSPF

- uses cost as its m
- elects a DR on each multiac

Section: IP Routing Technologies

QUESTION 85
Drag and Drop Question

Drag the Frame Relay acronym on the left to match its definition on the right. (Not all acronyms are used)

Select and Place:

Drag the Frame Relay acronym on the left to match its definition on the right. (Not all acronyms are used.)

CIR	a router is thi
DCE	the most commor
DTE	provides status messages b
LMI	identifies the virtual connection
PVC	
SVC	
DLCI	

Correct Answer:

Drag the Frame Relay acronym on the left to match its definition on the right. (Not all acronyms are used.)

CIR	D
DCE	F
DTE	I
LMI	D
PVC	
SVC	
DLCI	

Section: WAN Technologies

QUESTION 86
Hotspot Question

Instructions

This item contains several questions that you must answer. You can view these questions by clicking on the corresponding button to the left. Changing questions can be accomplished by clicking the numbers to the left of each question. In order to complete the questions, you will need to refer to the topology.

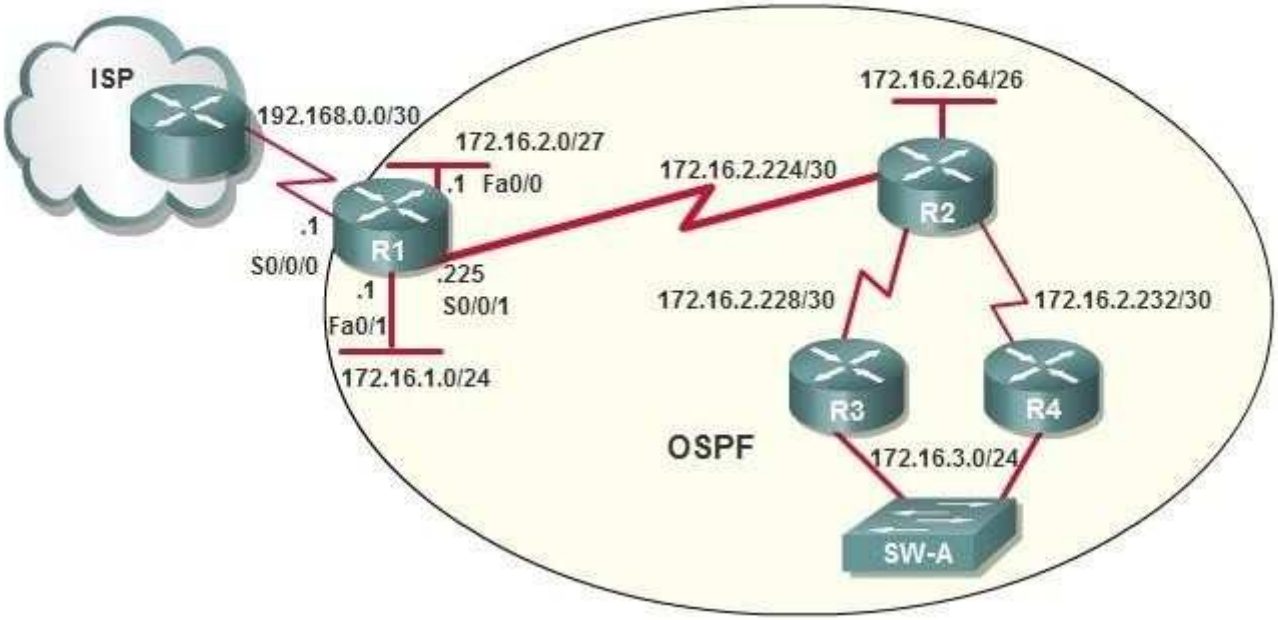
To gain access to the topology, click on the topology button at the bottom of the screen. When you have finished viewing the topology, you can return to your questions by clicking on the Questions button to the left.

Each of the windows can be minimized by clicking on the [-]. You can also reposition a window by dragging it by the title bar.

Scenario

Refer to the topology. Using the information shown, answer the four questions shown on the Questions tab.

Topology



OSPF is configured using default classful addressing. With all routers and interfaces operational, how many networks will be in the routing table of R1 that are indicated to be learned by OSPF?

A. 2
B. 3
C. 4
D. 5
E. 6
F. 7

Correct Answer: C
Section: IP Routing Technologies

QUESTION 87
Hotspot Question

Instructions

This item contains several questions that you must answer. You can view these questions by clicking on the corresponding button to the left. Changing questions can be accomplished by clicking the numbers to the left of each question. In order to complete the questions, you will need to refer to the topology.

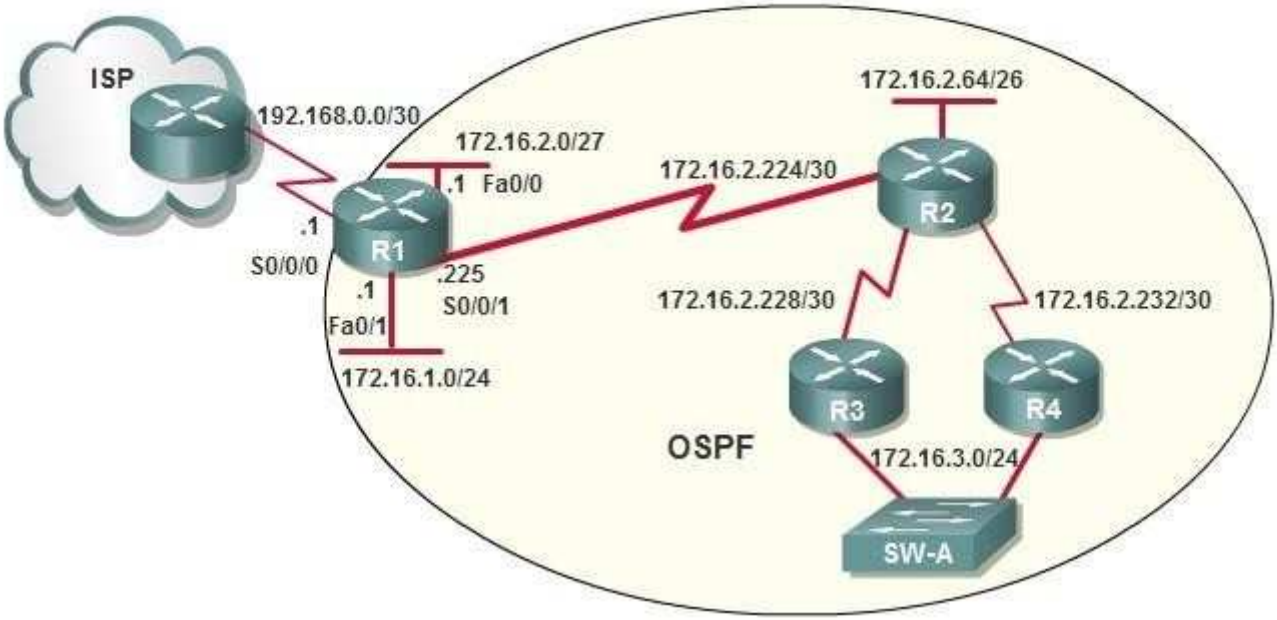
To gain access to the topology, click on the topology button at the bottom of the screen. When you have finished viewing the topology, you can return to your questions by clicking on the Questions button to the left.

Each of the windows can be minimized by clicking on the [-]. You can also reposition a window by dragging it by the title bar.

Scenario

Refer to the topology. Using the information shown, answer the four questions shown on the Questions tab.

Topology



After the network has converged, what type of messaging, if any, occurs between R3 and R4?

A. No messages are exchanged.
B. Hellos are sent every 10 seconds.
C. The full database from each router is sent every 30 seconds.
D. The routing table from each router is sent every 60 seconds.

Correct Answer: B
Section: IP Routing Technologies

QUESTION 88
Hotspot Question

Instructions

This item contains several questions that you must answer. You can view these questions by clicking on the corresponding button to the left. Changing questions can be accomplished by clicking the numbers to the left of each question. In order to complete the questions, you will need to refer to the topology.

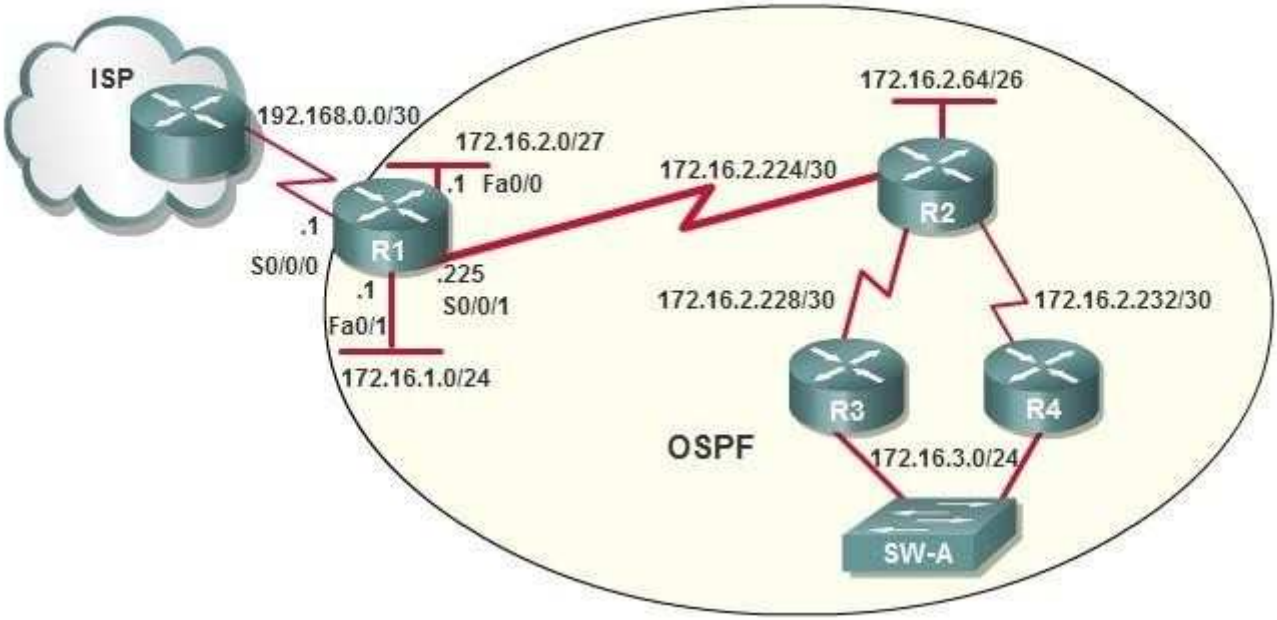
To gain access to the topology, click on the topology button at the bottom of the screen. When you have finished viewing the topology, you can return to your questions by clicking on the Questions button to the left.

Each of the windows can be minimized by clicking on the [-]. You can also reposition a window by dragging it by the title bar.

Scenario

Refer to the topology. Using the information shown, answer the four questions shown on the Questions tab.

Topology



To allow or prevent load balancing to network 172.16.3.0/24, which of the following commands could be used in R2? (Choose two.)

A. R2(config-if)#clock rate
B. R2(config-if)#bandwidth
C. R2(config-if)#ip ospf cost
D. R2(config-if)#ip ospf priority
E. R2(config-router)#distance ospf

Correct Answer: BC

Section: IP Routing Technologies

QUESTION 89
Hotspot Question

Instructions

This item contains several questions that you must answer. You can view these questions by clicking on the corresponding button to the left. Changing questions can be accomplished by clicking the numbers to the left of each question. In order to complete the questions, you will need to refer to the topology.

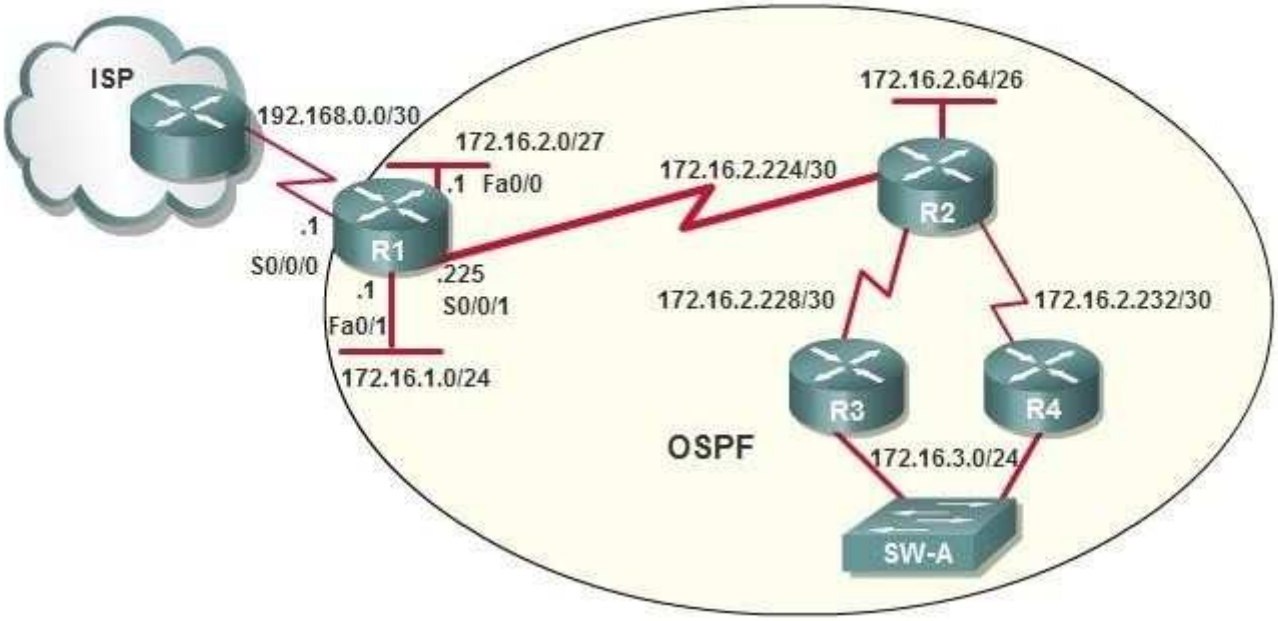
To gain access to the topology, click on the topology button at the bottom of the screen. When you have finished viewing the topology, you can return to your questions by clicking on the Questions button to the left.

Each of the windows can be minimized by clicking on the [-]. You can also reposition a window by dragging it by the title bar.

Scenario

Refer to the topology. Using the information shown, answer the four questions shown on the Questions tab.

Topology

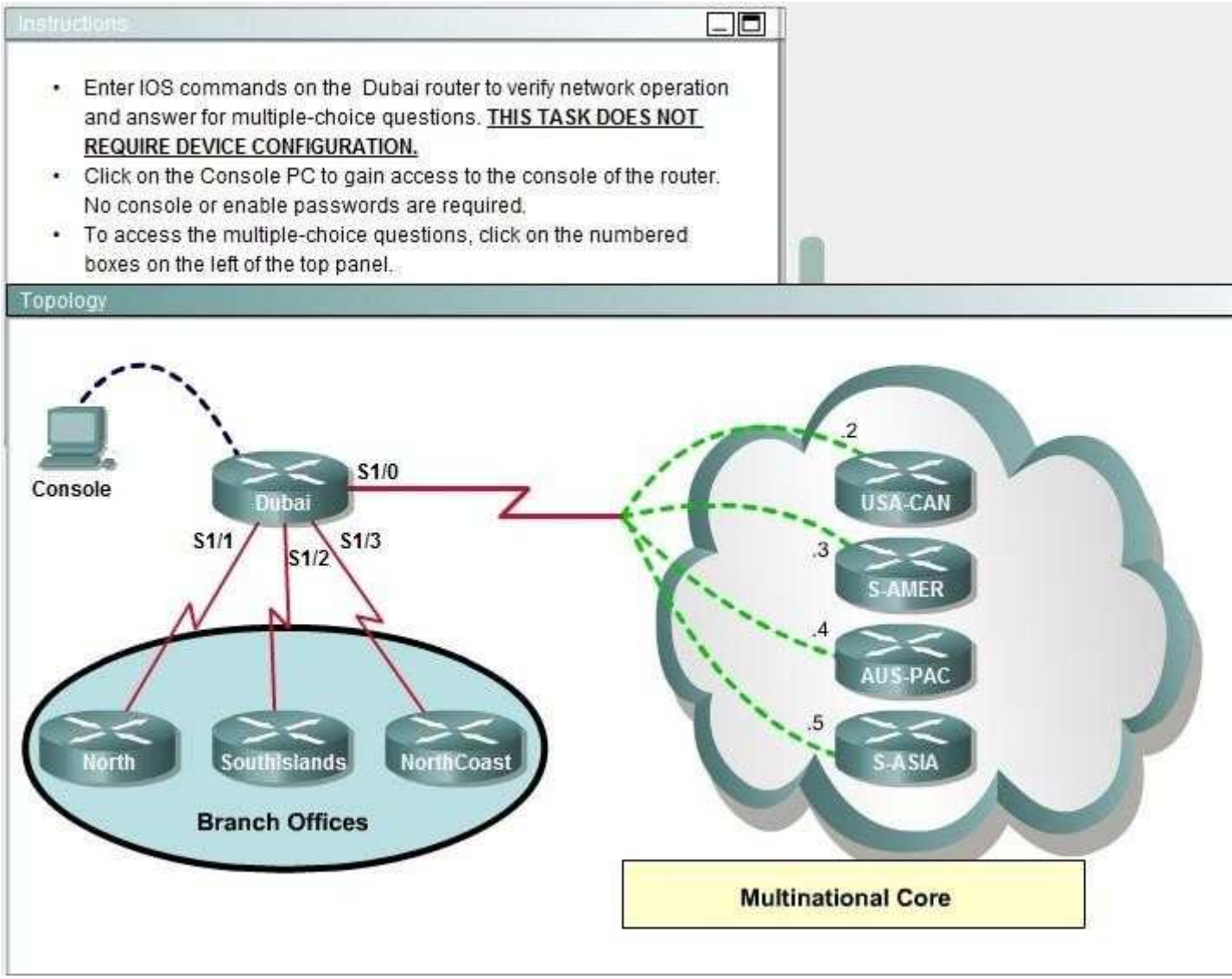


R1 is configured with the default configuration of OSPF. From the following list of IP addresses configured on R1, which address will the OSPF process select as the router ID?

A. 192.168.0.1
B. 172.16.1.1
C. 172.16.2.1
D. 172.16.2.225

Correct Answer: A
Section: IP Routing Technologies

QUESTION 90
Hotspot Question



Dubai

```
%LINK-3-UPDOWN: Interface FastEthernet0/0, changed state to administratively dow
n
%LINK-3-UPDOWN: Interface Serial1/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/0, changed state to up
%LINK-3-UPDOWN: Interface Serial1/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/1, changed state to up
%LINK-3-UPDOWN: Interface Serial1/2, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/2, changed state to up
%LINK-3-UPDOWN: Interface Serial1/3, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/3, changed state to up
Press RETURN to get started!
Dubai>
```

```
Dubai#sh frame-relay map
Serial1/0 (up): ip 172.30.0.2 dlci 825 (0x7B,0x1CB0), dynamic,
                broadcast,, status defined, active
Serial1/0 (up): ip 172.30.0.3 dlci 230 (0xEA,0x38A0), dynamic,
                broadcast,, status defined, active
Serial1/0 (up): ip 172.30.0.4 dlci 694 (0x159,0x5490), dynamic,
                broadcast,, status defined, active
Serial1/0 (up): ip 172.30.0.5 dlci 387 (0x1C8,0x7080), dynamic,
                broadcast,, status defined, active
Dubai#
interface FastEthernet0/0
 no ip address
 shutdown
!
interface Serial1/0
 ip address 172.30.0.1 255.255.255.240
 encapsulation frame-relay
 no fair-queue
!
interface Serial1/1
 ip address 192.168.0.1 255.255.255.252
!
interface Serial1/2
 ip address 192.168.0.5 255.255.255.252
 encapsulation ppp
!
interface Serial1/3
 ip address 192.168.0.9 255.255.255.252
 encapsulation ppp
 ppp authentication chap
!
router rip
 version 2
 network 172.30.0.0
 network 192.168.0.0
 no auto-summary
!
line con 0
 exec-timeout 0 0
line aux 0
line vty 0 4
 password Tlnet
 login
!
end
```

If required, what password should be configured on the SouthIslands router in the branch office to allow a connection to be established with the Dubai router?

A. No password is required.
B. Enable
C. Secret
D. Telnet
E. Console

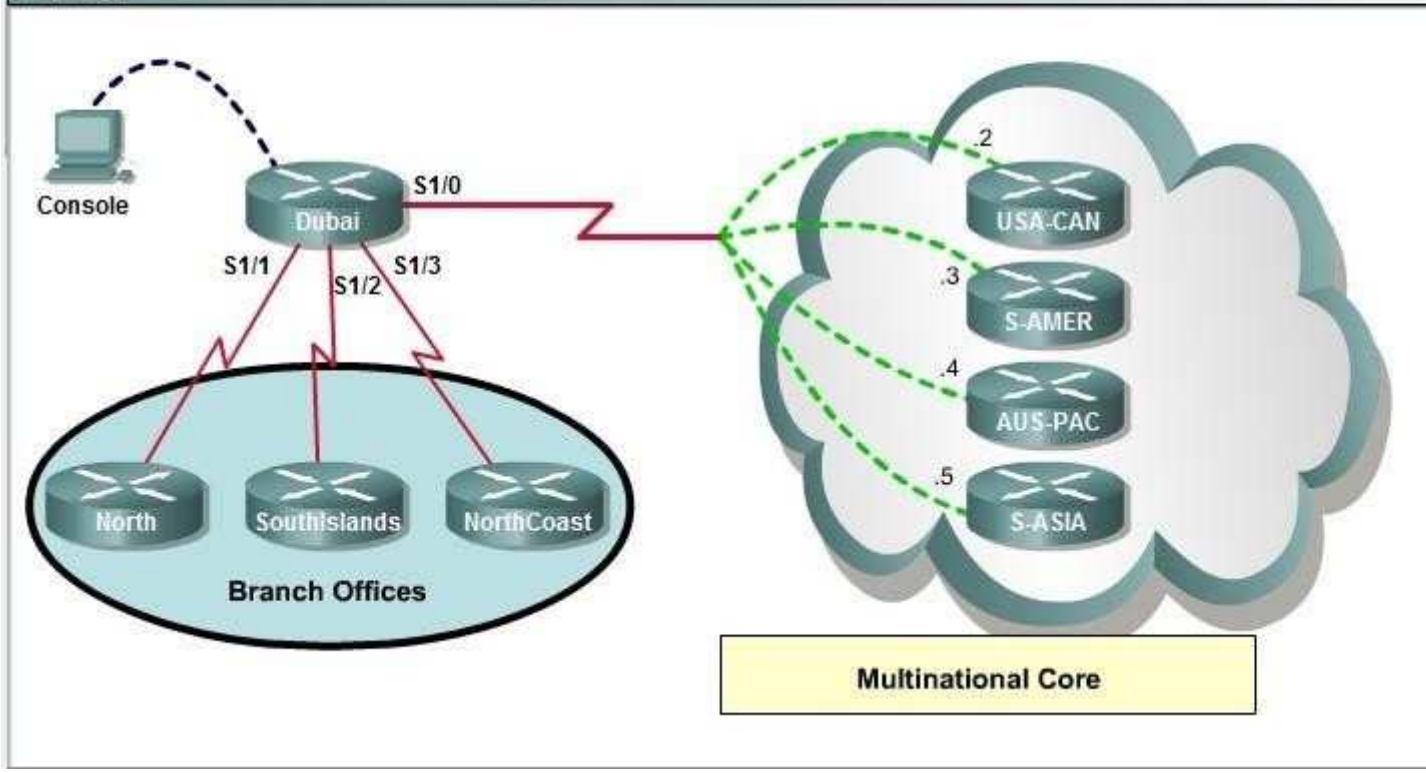
Correct Answer: A
Section: WAN Technologies

QUESTION 91
Hotspot Question

Instructions

- Enter IOS commands on the Dubai router to verify network operation and answer for multiple-choice questions. **THIS TASK DOES NOT REQUIRE DEVICE CONFIGURATION.**
- Click on the Console PC to gain access to the console of the router. No console or enable passwords are required.
- To access the multiple-choice questions, click on the numbered boxes on the left of the top panel.

Topology



Dubai

```
%LINK-3-UPDOWN: Interface FastEthernet0/0, changed state to administratively dow
n
%LINK-3-UPDOWN: Interface Serial1/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/0, changed state to up
%LINK-3-UPDOWN: Interface Serial1/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/1, changed state to up
%LINK-3-UPDOWN: Interface Serial1/2, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/2, changed state to up
%LINK-3-UPDOWN: Interface Serial1/3, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/3, changed state to up
Press RETURN to get started!
Dubai>
```

```
Dubai#sh frame-relay map
Serial1/0 (up): ip 172.30.0.2 dlci 825 (0x7B,0x1CB0), dynamic,
                broadcast,, status defined, active
Serial1/0 (up): ip 172.30.0.3 dlci 230 (0xEA,0x38A0), dynamic,
                broadcast,, status defined, active
Serial1/0 (up): ip 172.30.0.4 dlci 694 (0x159,0x5490), dynamic,
                broadcast,, status defined, active
Serial1/0 (up): ip 172.30.0.5 dlci 387 (0x1C8,0x7080), dynamic,
                broadcast,, status defined, active
Dubai#
interface FastEthernet0/0
 no ip address
 shutdown
!
interface Serial1/0
 ip address 172.30.0.1 255.255.255.240
 encapsulation frame-relay
 no fair-queue
!
interface Serial1/1
 ip address 192.168.0.1 255.255.255.252
!
interface Serial1/2
 ip address 192.168.0.5 255.255.255.252
 encapsulation ppp
!
interface Serial1/3
 ip address 192.168.0.9 255.255.255.252
 encapsulation ppp
 ppp authentication chap
!
router rip
 version 2
 network 172.30.0.0
 network 192.168.0.0
 no auto-summary
!
line con 0
 exec-timeout 0 0
line aux 0
line vty 0 4
 password Tlnet
 login
!
end
```

What would be the destination Layer 2 address in the frame header for a frame that is being forwarded by Dubai to the host address of 172.30.4.4?

A. 825
B. 230
C. 694
D. 387

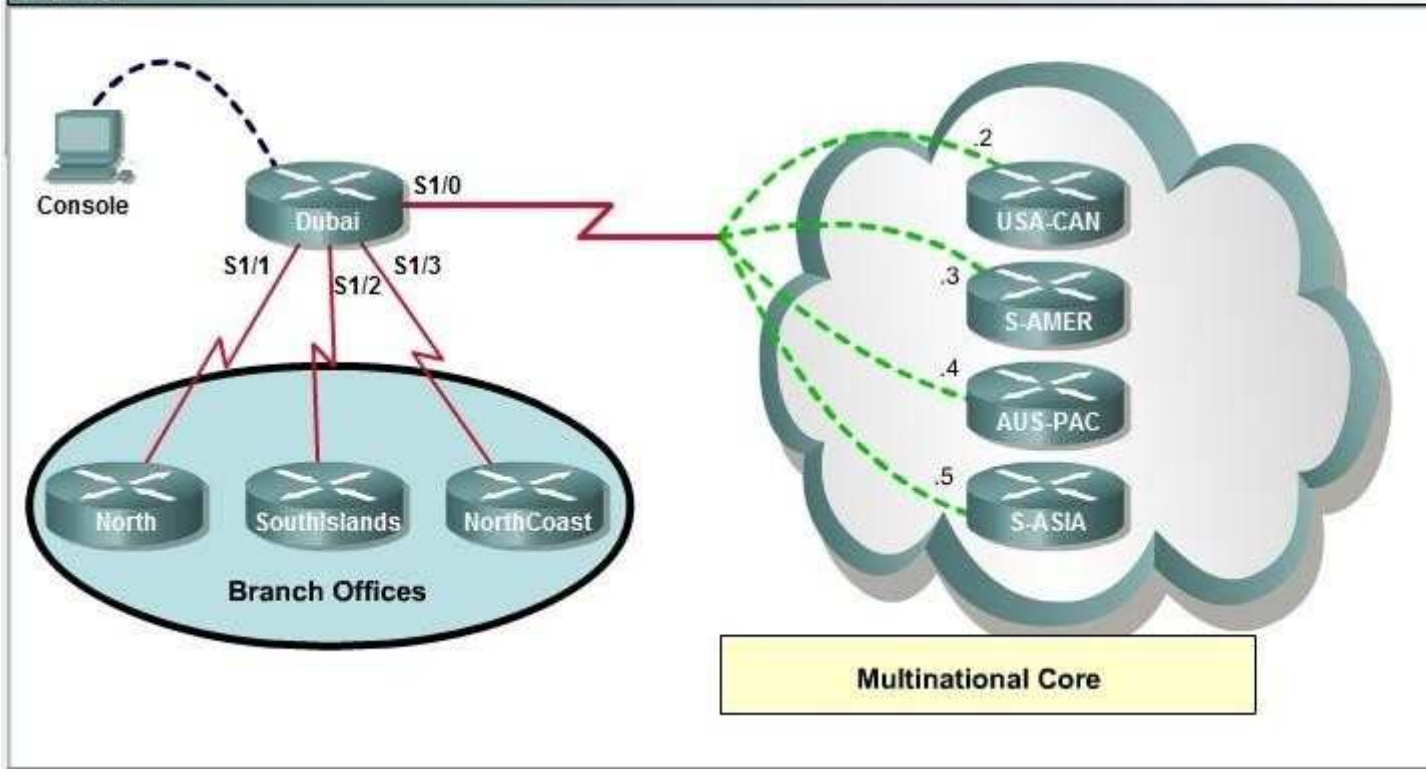
Correct Answer: C
Section: WAN Technologies

QUESTION 92
Hotspot Question

Instructions

- Enter IOS commands on the Dubai router to verify network operation and answer for multiple-choice questions. **THIS TASK DOES NOT REQUIRE DEVICE CONFIGURATION.**
- Click on the Console PC to gain access to the console of the router. No console or enable passwords are required.
- To access the multiple-choice questions, click on the numbered boxes on the left of the top panel.

Topology



Dubai

```
%LINK-3-UPDOWN: Interface FastEthernet0/0, changed state to administratively dow
n
%LINK-3-UPDOWN: Interface Serial1/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/0, changed state to up
%LINK-3-UPDOWN: Interface Serial1/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/1, changed state to up
%LINK-3-UPDOWN: Interface Serial1/2, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/2, changed state to up
%LINK-3-UPDOWN: Interface Serial1/3, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/3, changed state to up
Press RETURN to get started!
Dubai>
```

```
Dubai#sh frame-relay map
Serial1/0 (up): ip 172.30.0.2 dlci 825 (0x7B,0x1CB0), dynamic,
                broadcast,, status defined, active
Serial1/0 (up): ip 172.30.0.3 dlci 230 (0xEA,0x38A0), dynamic,
                broadcast,, status defined, active
Serial1/0 (up): ip 172.30.0.4 dlci 694 (0x159,0x5490), dynamic,
                broadcast,, status defined, active
Serial1/0 (up): ip 172.30.0.5 dlci 387 (0x1C8,0x7080), dynamic,
                broadcast,, status defined, active
Dubai#
interface FastEthernet0/0
 no ip address
 shutdown
!
interface Serial1/0
 ip address 172.30.0.1 255.255.255.240
 encapsulation frame-relay
 no fair-queue
!
interface Serial1/1
 ip address 192.168.0.1 255.255.255.252
!
interface Serial1/2
 ip address 192.168.0.5 255.255.255.252
 encapsulation ppp
!
interface Serial1/3
 ip address 192.168.0.9 255.255.255.252
 encapsulation ppp
 ppp authentication chap
!
router rip
 version 2
 network 172.30.0.0
 network 192.168.0.0
 no auto-summary
!
line con 0
 exec-timeout 0 0
line aux 0
line vty 0 4
 password Tlnet
 login
!
end
```

Which connection uses the default encapsulation for serial interfaces on Cisco routers?

A. The serial connection to the NorthCoast branch office.
B. The serial connection to the North branch office.
C. The serial connection to the Southlands branch office.
D. The serial connection to the Multinational Core.

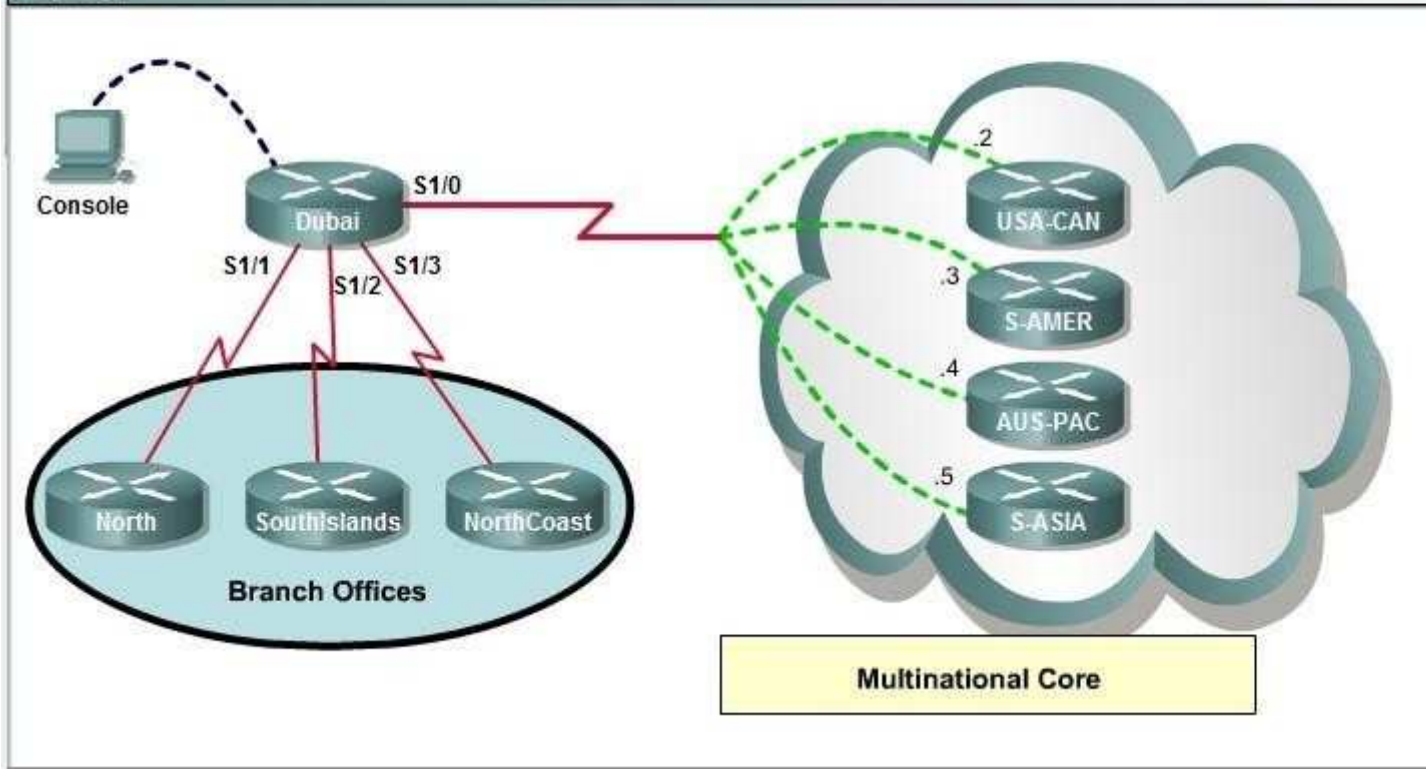
Correct Answer: B
Section: WAN Technologies

QUESTION 93
Hotspot Question

Instructions

- Enter IOS commands on the Dubai router to verify network operation and answer for multiple-choice questions. **THIS TASK DOES NOT REQUIRE DEVICE CONFIGURATION.**
- Click on the Console PC to gain access to the console of the router. No console or enable passwords are required.
- To access the multiple-choice questions, click on the numbered boxes on the left of the top panel.

Topology



Dubai

```
%LINK-3-UPDOWN: Interface FastEthernet0/0, changed state to administratively dow
n
%LINK-3-UPDOWN: Interface Serial1/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/0, changed state to up
%LINK-3-UPDOWN: Interface Serial1/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/1, changed state to up
%LINK-3-UPDOWN: Interface Serial1/2, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/2, changed state to up
%LINK-3-UPDOWN: Interface Serial1/3, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/3, changed state to up
Press RETURN to get started!
Dubai>
```

```
Dubai#sh frame-relay map
Serial1/0 (up): ip 172.30.0.2 dlci 825 (0x7B,0x1CB0), dynamic,
                broadcast,, status defined, active
Serial1/0 (up): ip 172.30.0.3 dlci 230 (0xEA,0x38A0), dynamic,
                broadcast,, status defined, active
Serial1/0 (up): ip 172.30.0.4 dlci 694 (0x159,0x5490), dynamic,
                broadcast,, status defined, active
Serial1/0 (up): ip 172.30.0.5 dlci 387 (0x1C8,0x7080), dynamic,
                broadcast,, status defined, active
Dubai#
interface FastEthernet0/0
 no ip address
 shutdown
!
interface Serial1/0
 ip address 172.30.0.1 255.255.255.240
 encapsulation frame-relay
 no fair-queue
!
interface Serial1/1
 ip address 192.168.0.1 255.255.255.252
!
interface Serial1/2
 ip address 192.168.0.5 255.255.255.252
 encapsulation ppp
!
interface Serial1/3
 ip address 192.168.0.9 255.255.255.252
 encapsulation ppp
 ppp authentication chap
!
router rip
 version 2
 network 172.30.0.0
 network 192.168.0.0
 no auto-summary
!
line con 0
 exec-timeout 0 0
line aux 0
line vty 0 4
 password Tlnet
 login
!
end
```

A static map to the S-AMER location is required. Which command should be used to create this map?

A. frame-relay map ip 172.30.0.3 825 broadcast
B. frame-relay map ip 172.30.0.3 230 broadcast
C. frame-relay map ip 172.30.0.3 694 broadcast
D. frame-relay map ip 172.30.0.3 387 broadcast

Correct Answer: B
Section: WAN Technologies

QUESTION 94
What are the benefit of using Netflow? (Choose three.)

A. Network, Application & User Monitoring
B. Network Planning
C. Security Analysis

D. Accounting/Billing

Correct Answer: ACD
Section: IP Services

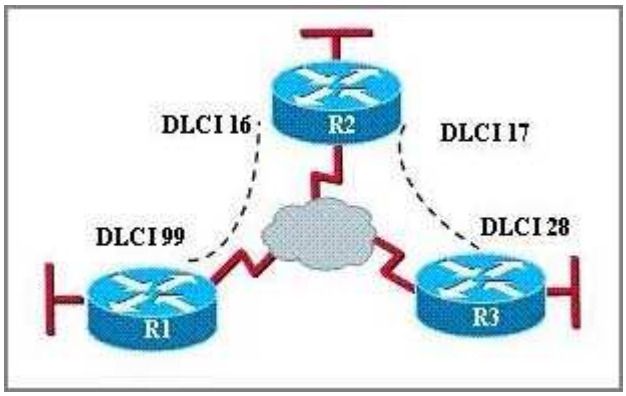
QUESTION 95
What are three benefits of GLBP? (Choose three.)

A. GLBP supports up to eight virtual forwarders per GLBP group.
B. GLBP supports clear text and MD5 password authentication between GLBP group members.
C. GLBP is an open source standardized protocol that can be used with multiple vendors.
D. GLBP supports up to 1024 virtual routers.
E. GLBP can load share traffic across a maximum of four routers.
F. GLBP elects two AVGs and two standby AVGs for redundancy.

Correct Answer: BDE
Section: IP Services

QUESTION 96
Refer to the exhibit.

Which statement describes DLCI 17?



A. DLCI 17 describes the ISDN circuit between R2 and R3.
B. DLCI 17 describes a PVC on R2. It cannot be used on R3 or R1.
C. DLCI 17 is the Layer 2 address used by R2 to describe a PVC to R3.
D. DLCI 17 describes the dial-up circuit from R2 and R3 to the service provider.

Correct Answer: C
Section: WAN Technologies

QUESTION 97
Users have been complaining that their Frame Relay connection to the corporate site is very slow. The network administrator suspects that the link is overloaded. Based on the partial output of the Router#show frame relay pvc command shown in the graphic, which output value indicates to the local router that traffic sent to the corporate site is experiencing congestion?

```
PVC Statistics for interface Serial0 (Frame Relay DTE)

          Active   Inactive   Deleted   Static
 Local      1         0         0         0
 Switched   0         0         0         0
 Unused     0         0         0         0

DLCI = 100, DLCI USAGE = LOCAL, PVC STATUS = ACTIVE, INTERFACE =
Serial0

 input pkts 1300        output pkts 1270        in bytes 22121000
 out bytes 21802000      dropped pkts 4          in FECN pkts 147
 in BECN pkts 192       out FECN pkts 259       out BECN pkts 214
 in DE pkts 0          out DE pkts 0
 out bcast pkts 107      out bcast bytes 19722
 pvc create time 00:25:50, last time pvc status changed 00:25:40
```

A. DLCI=100
B. last time PVC status changed 00:25:40
C. in BECN packets 192
D. in FECN packets 147
E. in DF packets 0

Correct Answer: C
Section: WAN Technologies

QUESTION 98
Refer to the exhibit.

What is the meaning of the term dynamic as displayed in the output of the show frame-relay map command shown?

```
R1# show frame-relay map
Serial0/0 (up): ip 172.16.3.1 dlci 100 (0x64, 0x1840), dynamic
              broadcast,, status defined, active
```

A. The Serial0/0 interface is passing traffic.
B. The DLCI 100 was dynamically allocated by the router
C. The Serial0/0 interface acquired the IP address of 172.16.3.1 from a DHCP server
D. The DLCI 100 will be dynamically changed as required to adapt to changes in the Frame Relay cloud
E. The mapping between DLCI 100 and the end station IP address 172.16.3.1 was learned through Inverse ARP

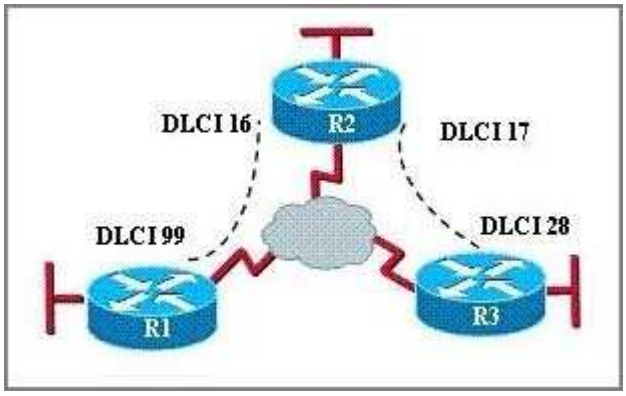
Correct Answer: E
Section: WAN Technologies

QUESTION 99
The command frame-relay map ip 10.121.16.8 102 broadcast was entered on the router. Which of the following statements is true concerning this command?

A. This command should be executed from the global configuration mode.
B. The IP address 10.121.16.8 is the local router port used to forward data.
C. 102 is the remote DLCI that will receive the information.
D. This command is required for all Frame Relay configurations.
E. The broadcast option allows packets, such as RIP updates, to be forwarded across the PVC.

Correct Answer: E
Section: WAN Technologies

QUESTION 100
In the Frame Relay network, which IP addresses would be assigned to the interfaces with point-to-point PVCs?



A. DLCI 16 192.168.10.1/24
DLCI 17 192.168.10.1/24
DLCI 99 192.168.10.2/24
DLCI 28 192.168.10.3/24
B. DLCI 16 192.168.10.1 /24
DLCI 17 192.168.11.1/24
DLCI 99 192.168.12.1/24
DLCI 28 192.168.13.1/24
C. DLCI 16 192.168.10.1/24
DLCI 17 192.168.11.1/24
DLCI 99 192.168.10.2/24
DLCI 28 192.168.11.2/24
D. DLCI 16 192.168.10.1/24
DLCI 17 192.168.10.2/24
DLCI 99 192.168.10.3/24
DLCI 28 192.168.10.4/24

Correct Answer: C
Section: WAN Technologies

QUESTION 101
It has become necessary to configure an existing serial interface to accept a second Frame Relay virtual circuit. Which of the following are required to solve this? (Choose three)

A. configure static frame relay map entries for each subinterface network.
B. remove the ip address from the physical interface
C. create the virtual interfaces with the interface command
D. configure each subinterface with its own IP address
E. disable split horizon to prevent routing loops between the subinterface networks
F. encapsulate the physical interface with multipoint PPP

Correct Answer: BCD
Section: WAN Technologies

QUESTION 102
A network administrator is troubleshooting an EIGRP problem on a router and needs to confirm the IP addresses of the devices with which the router has established adjacency. The retransmit interval and the

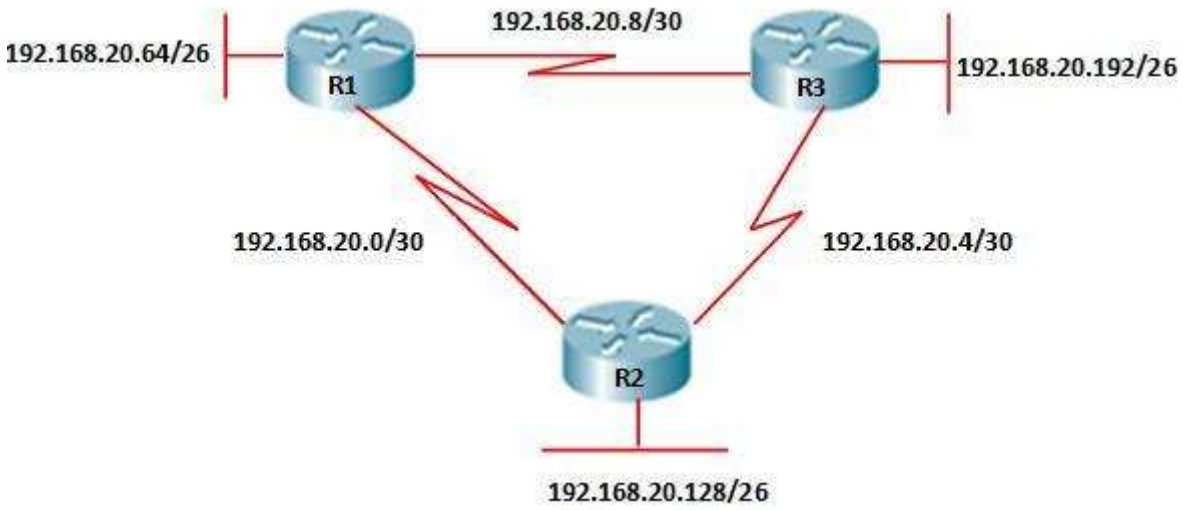
queue counts for the adjacent routers also need to be checked. What command will display the required information?

A. Router# show ip eigrp adjacency
B. Router# show ip eigrp topology
C. Router#show ip eigrp interfaces
D. Router#show ip eigrp neighbors

Correct Answer: D
Section: IP Routing Technologies

QUESTION 103
Refer to the exhibit.

The company uses EIGRP as the routing protocol. What path will packets take from a host on 192.168.10.192/26 network to a host on the LAN attached to router R1?



R3# show ip route
Gateway of last resort is not set
192 168.20.0/24 is variably subnetted, 6 subnets, 2 masks
D 192.168.20.64/26 [90/2195456] via 192.168.20.9, 00:03:31, Serial0/0
D 192.168.20.0/30 [90/2681856] via 192.168.20.9, 00:03:31, Serial0/0
C 192.168.20.4/30 is directly connected, Serial0/1
C 192.168.20.8/30 is directly connected, Serial0/0
C 192.168.20.192/26 is directly connected, FastEthernet0/0
D 192.168.20.128/26 [90/2195456] via 192.168.20.5,00:03:31, Serial0/1

A. The path of the packets will be R3 to R2 to R1
B. The path of the packets will be R3 to R1 to R2
C. The path of the packets will be both R3 to R2 to R1 and R3 to R1
D. The path of the packets will be R3 to R1

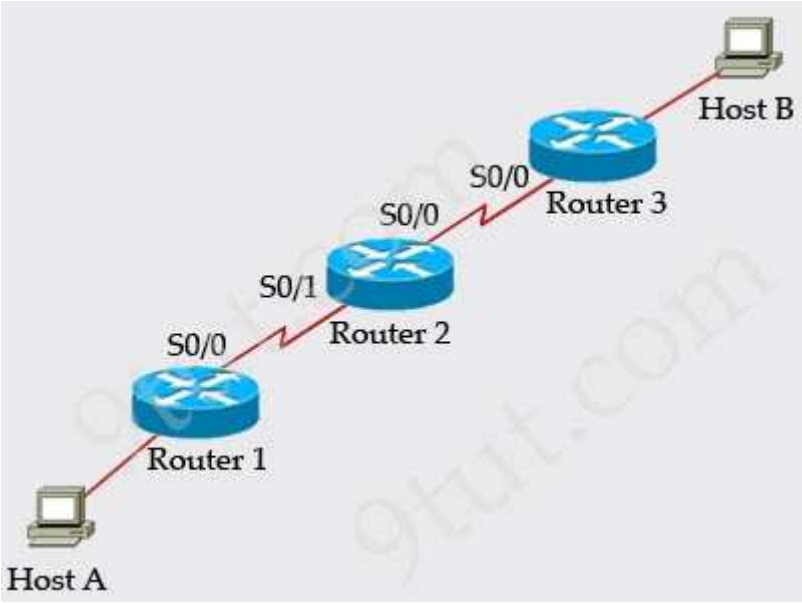
Correct Answer: D
Section: IP Routing Technologies

QUESTION 104
A router receives information about network 192.168.10.0/24 from multiple sources. What will the router consider the most reliable information about the path to that network?

A. an OSPF update for network 192.168.0.0/16
B. a static route to network 192.168.10.0/24
C. a static route to network 192.168.10.0/24 with a local serial interface configured as the next hop
D. a RIP update for network 192.168.10.0/24
E. a directly connected interface with an address of 192.168.10.254/24
F. a default route with a next hop address of 192.168.10.1

Correct Answer: E
Section: (none)

QUESTION 105
Refer to the exhibit, Host A pings interface S0/0 on router 3, what is the TTL value for that ping?



A. 253
B. 252
C. 255
D. 254

Correct Answer: A
Section: (none)

QUESTION 106
Which feature does PPP use to encapsulate multiple protocols?

A. NCP
B. LCP
C. IPCP
D. IPXP

Correct Answer: A
Section: WAN Technologies

QUESTION 107
What is the purpose of LCP?

A. to perform authentication
B. to negotiate control options
C. to encapsulate multiple protocols
D. to specify asynchronous versus synchronous

Correct Answer: B
Section: WAN Technologies

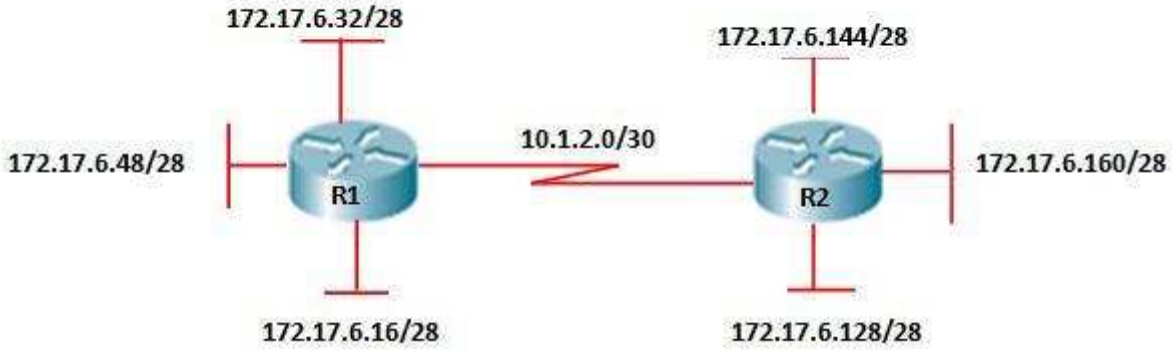
QUESTION 108
Refer to the exhibit. A packet with a source IP address of 192.168.2.4 and a destination IP address of 10.1.1.4 arrives at the AcmeB router. What action does the router take?

```
AcmeB# show ip route
          !    !
Gateway of last resort is not set
    192 168.3.0/28 is variably subnetted, 6 subnets
D       192.168.3.64 [90/20625671] via 192.168.0.6, 03:17:05, Serial0/01
D       192.168.3.80 [90/20625671] via 192.168.0.6, 03:17:05, Serial0/1
D       192.168.3.32 [90/20625671] via 192.168.9.2, 03:17:05, Serial0/0
D       192.168.3.48 [90/20625671] via 192.168.9.2, 03:17:05, Serial0/0
D       192.168.3.0 [90/30830] via 192.168.2.10, 03:17:05, FastEthernet0/0
D       192.168.3.16 [90/175250] via 192.168.2.10, 03:17:06, FastEthernet0/0
   192.168.9.0/30 is subnetted, 1 subnets
C     192.168.9.0 is directly connected, Serial0/0
    192.168.0.0/30 is subnetted, 1 subnets
C  192.168.0.4 is directly connected, Serial0/1
   192.168.2.0/30 is subnetted, 1 subnets
C   192.168.2.8 is directly connected, FastEthernet0/0
AcmeB#
```

A. forwards the received packet out the Serial0/0 interface
B. forwards a packet containing an EIGRP advertisement out the Serial0/1 interface
C. forwards a packet containing an ICMP message out the FastEthemet0/0 interface
D. forwards a packet containing an ARP request out the FastEthemet0/1 interface

Correct Answer: C
Section: (none)

QUESTION 109
Refer to the exhibit. From R1, a network administrator is able to ping the serial interface of R2 but, unable to ping any of the subnets attached to RouterB. Based on the partial outputs in the exhibit, what could be the problem?




```
R1#show ip protocols
Routing Protocols is "eigrp 501"
<output omitted>
Routing for Networks:
10.0.0.0
172.17.00
Routing Information Services:
Gateway        Distances    Last Update
(this router)  90           00:10:30
10.1.2.2       90           00:10:30
Distance: internal 90 external 170
R1#
```

```
R2#show ip protocols
Routing Protocols is "eigrp 501"
<output omitted>
Routing for Networks:
10.0.0.0
172.17.00
Routing Information Services:
Gateway        Distances    Last Update
(this router)  90           00:7:10
10.1.2.1       90           00:7:10
Distance: internal 90 external 170
R2#
```

```
R2#show ip route
<output omitted>
Gateway of last resort not set

        172.17.0.0/16 is subnetted, 4 subnets, 2 masks
C       172.17.6.160/28 is directly connected, FastEthernet0/0
C       172.17.6.144/28 is directly connected, FastEthernet0/1
C       172.17.6.128/28 is directly connected, FastEthernet1/0
D       172.17.0.0/16 is a summary, 00:00:06, Null0
    10.0.0.0/8 is a variable subnetted, 2 subnets, 2 masks
D       10.0.0.0/8 is a summary, 00:00:07, Null0
C       10.1.2.0/30 is directly connected, Serial0/0
R2#
```

A. EIGRP does not support VLSM.
B. The EIGRP network statements are incorrectly configured.
C. The IP addressing on the serial interface of RouterA is incorrect.
D. The routing protocol has summarized on the classful boundary.
E. EIGRP has been configured with an invalid autonomous system number.

Correct Answer: D
Section: (none)

QUESTION 110
A network administrator needs to configure port security on a switch. Which two statements are true? (Choose two.)

A. The network administrator can apply port security to dynamic access ports.
B. When dynamic MAC address learning is enabled on an interface, the switch can learn new addresses, up to the maximum defined.
C. The sticky learning feature allows the addition of dynamically learned addresses to the running configuration.
D. The network administrator can configure static secure or sticky secure MAC addresses in the voice VLAN.
E. The network administrator can apply port security to EtherChannels.

Correct Answer: BC
Section: (none)

QUESTION 111
What are two characteristics of a switch that is configured as a VTP client? (Choose two.)

A. If a switch that is configured to operate in client mode cannot access a VTP server, then the switch reverts to transparent mode.
B. On switches that are configured to operate in client mode, VLANs can be created, deleted, or renamed locally.
C. The local VLAN configuration is updated only when an update that has a higher configuration revision number is received.
D. VTP advertisements are not forwarded to neighboring switches that are configured in VTP transparent mode.
E. VTP client is the default VTP mode.
F. When switches in VTP client mode are rebooted, they send a VTP advertisement request to the VTP servers.

Correct Answer: CF
Section: (none)

QUESTION 112
Which protocol provides a method of sharing VLAN configuration information between two Cisco switches?

A. STP
B. VTP
C. 802.1Q
D. RSTP

Correct Answer: B
Section: (none)

QUESTION 113
The network administrator has been asked to give reasons for moving from IPv4 to IPv6. What are two valid reasons for adopting IPv6 over IPv4? (Choose two.)

A. no broadcast
B. change of source address in the IPv6 header
C. change of destination address in the IPv6 header
D. Telnet access does not require a password
E. autoconfig
F. NAT

Correct Answer: AE
Section: (none)

QUESTION 114
Which of these represents an IPv6 link-local address?

A. FE80::380e:611a:e14f:3d69
B. FE81::280f:512b:e14f:3d69
C. FEFE:0345:5f1b::e14d:3d69
D. FE08::280e:611:a:f14f:3d69

Correct Answer: A
Section: (none)

QUESTION 115
Which one of these is a valid HSRP Virtual Mac Address?

A. 0000.0C07.AC01
B. 0000.5E00.0110
C. 0007.B400.1203
D. 0000.C007.0201

Correct Answer: A
Section: (none)

QUESTION 116
When a router undergoes the exchange protocol within OSPF, in what order does it pass through each state?

A. exstart state > loading state > exchange state > full state
B. exstart state > exchange state > loading state > full state
C. exstart state > full state > loading state > exchange state
D. loading state > exchange state > full state > exstart state

Correct Answer: B
Section: (none)

QUESTION 117
What Netflow component can be applied to an interface to track IPv4 traffic?

A. flow monitor
B. flow record
C. flow sampler
D. flow exporter

Correct Answer: A
Section: (none)

QUESTION 118
What are three reasons to collect Netflow data on a company network? (Choose three.)

A. To identify applications causing congestion
B. To authorize user network access
C. To report and alert link up / down instances

D. To diagnose slow network performance, bandwidth hogs, and bandwidth utilization
E. To detect suboptimal routing in the network
F. To confirm the appropriate amount of bandwidth that has been allocated to each Class of Service

Correct Answer: ADF
Section: (none)

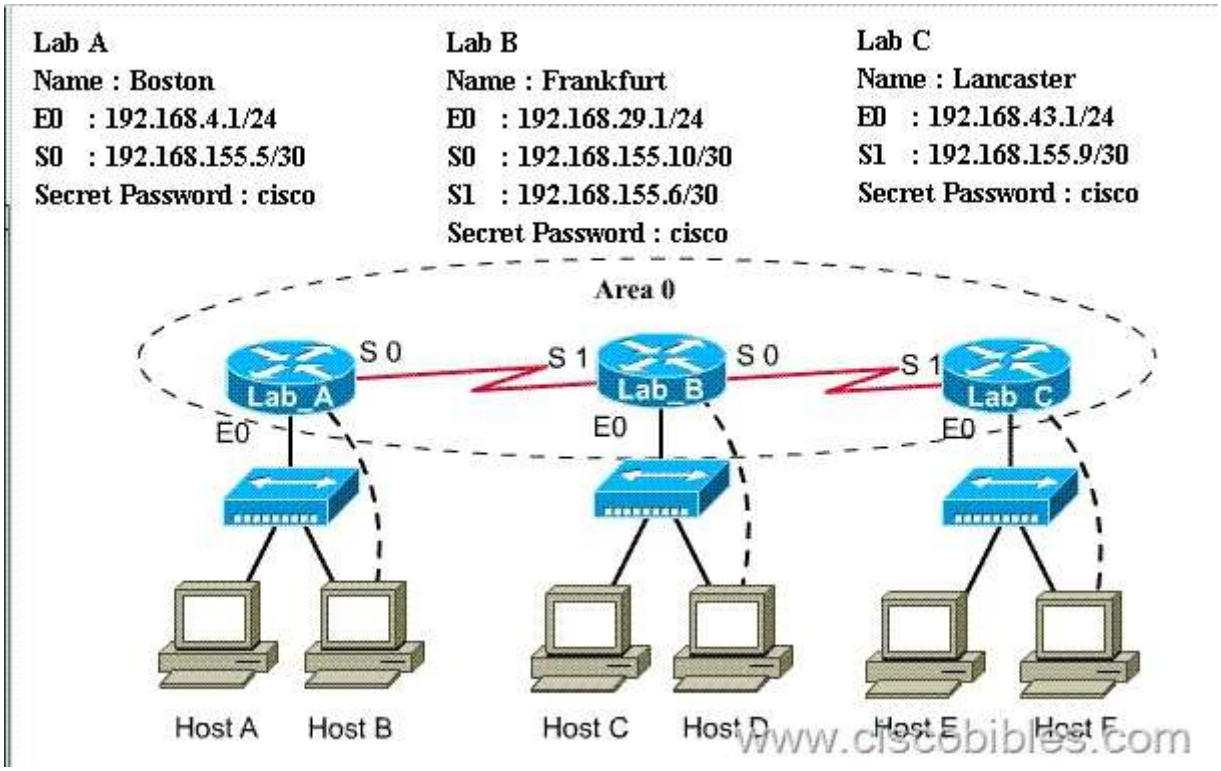
Simulations

QUESTION 1
Lab - OSPF

A sporting goods manufacturer has decided to network three (3) locations to improve efficiency in inventory control. The routers have been named to reflect the location: Boston, Frankfurt, and Lancaster.

The necessary networking has been completed at each location, and the routers have been configured with single area OSPF as the routing protocol. The Boston router was recently installed but connectivity is not complete because of incomplete routing tables. Identify and correct any problem you see in the configuration.

Note: The OSPF process must be configured to allow interfaces in specific subnets to participate in the routing process.

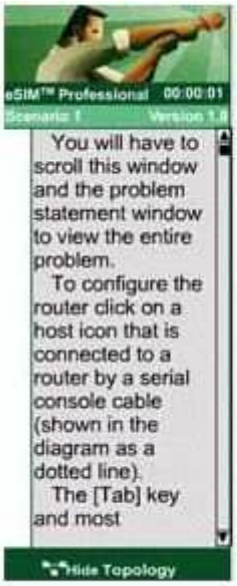


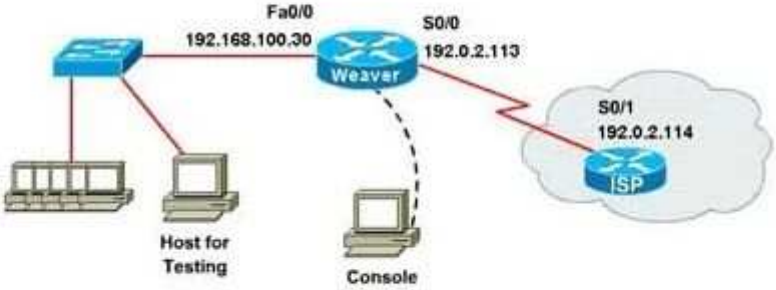
A.
B.
C.
D.

Correct Answer:
Section: IP Routing Technologies

QUESTION 2
Lab - NAT

A network associate is configuring a router for the weaver company to provide internet access. The ISP has provided the company six public IP addresses of 198.18.184.105 198.18.184.110. The company has 14 hosts that need to access the internet simultaneously. The hosts in the company LAN have been assigned private space addresses in the range of 192.168.100.17 - 192.168.100.30.





Note:

The following have already been configured on the router :

- The basic router configuration

- The appropriate interfaces have been configured for NAT inside and NAT outside

- The appropriate static routes have also been configured (since the company will be a stub network, no routing protocol will be required.)

- All passwords have been temporarily set to "Cisco"

The task is to complete the NAT configuration using all IP addresses assigned by the ISP to provide internet access for the hosts in the weaver LAN. Functionality can be tested by clicking on the host provided for testing.

Configuration information:

Router name – Weaver

Inside global addresses – 198.18.184.105 - 198.18.184.110/29

Inside local addresses – 192.168.100.17 – 192.168.100.30/28

Number of inside hosts 14

A.
B.
C.
D.

Correct Answer:
Section: IP Routing Technologies