

## Exam Questions 300-115

Implementing Cisco IP Switched Networks

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#### NEW QUESTION 1

Which statement describes what happens when a port configured with root guard receives a superior BPDU?

- A. The port goes into errdisabled state and stops forwarding traffic.
- B. The port goes into BPDU-inconsistent state and stops forwarding traffic.
- C. The port goes into loop-inconsistent state and stops forwarding traffic.
- D. The port goes into root-inconsistent state and stops forwarding traffic.

**Answer:** D

#### NEW QUESTION 2

Which statement about LLDP-MED is true?

- A. LLDP-MED is an extension to LLDP that operates between endpoint devices and network devices.
- B. LLDP-MED is an extension to LLDP that operates only between network devices.
- C. LLDP-MED is an extension to LLDP that operates only between endpoint devices.
- D. LLDP-MED is an extension to LLDP that operates between routers that run BGP.

**Answer:** A

#### NEW QUESTION 3

Which statement about using native VLANs to carry untagged frames is true?

- A. Cisco Discovery Protocol version 2 carries native VLAN information, but version 1 does not.
- B. Cisco Discovery Protocol version 1 carries native VLAN information, but version 2 does not.
- C. Cisco Discovery Protocol version 1 and version 2 carry native VLAN information.
- D. Cisco Discovery Protocol version 3 carries native VLAN information, but versions 1 and 2 do not.

**Answer:** A

#### NEW QUESTION 4

After the recent upgrade of the switching infrastructure, the network engineer notices that the port roles that were once "blocking" are now defined as "alternate" and "backup." What is the reason for this change?

- A. The new switches are using RSTP instead of legacy IEEE 802.1D STP.
- B. IEEE 802.1D STP and PortFast have been configured by default on all newly implemented Cisco Catalyst switches.
- C. The administrator has defined the switch as the root in the STP domain.
- D. The port roles have been adjusted based on the interface bandwidth and timers of the new Cisco Catalyst switches.

**Answer:** A

#### NEW QUESTION 5

Which action allows a network engineer to limit a default VLAN from being propagated across all trunks?

- A. Upgrade to VTP version 3 for advanced feature set support.
- B. Enable VTP pruning on the VTP server.
- C. Manually prune default VLAN with switchport trunk allowed vlans remove.
- D. Use trunk pruning vlan 1.

**Answer:** C

#### NEW QUESTION 6

What is the maximum number of VLANs that can be assigned to an access switchport without a voice VLAN?

- A. 1
- B. 2
- C. 1024

**Answer:** B

#### NEW QUESTION 7

You have been tasked with configuring multilayer SwitchC, which has a partial configuration and has been attached to RouterC as shown in the topology diagram. You need to configure SwitchC so that Hosts H1 and H2 can successfully ping the server S1. Also SwitchC needs to be able to ping server S1.

Due to administrative restrictions and requirements you should not add/delete vlans or create trunk links. Company policies forbid the use of static or default routing. All routes must be learned via EIGRP 65010 routing protocol.

You do not have access to RouterC. RouterC is correctly configured. No trunking has been configured on RouterC.

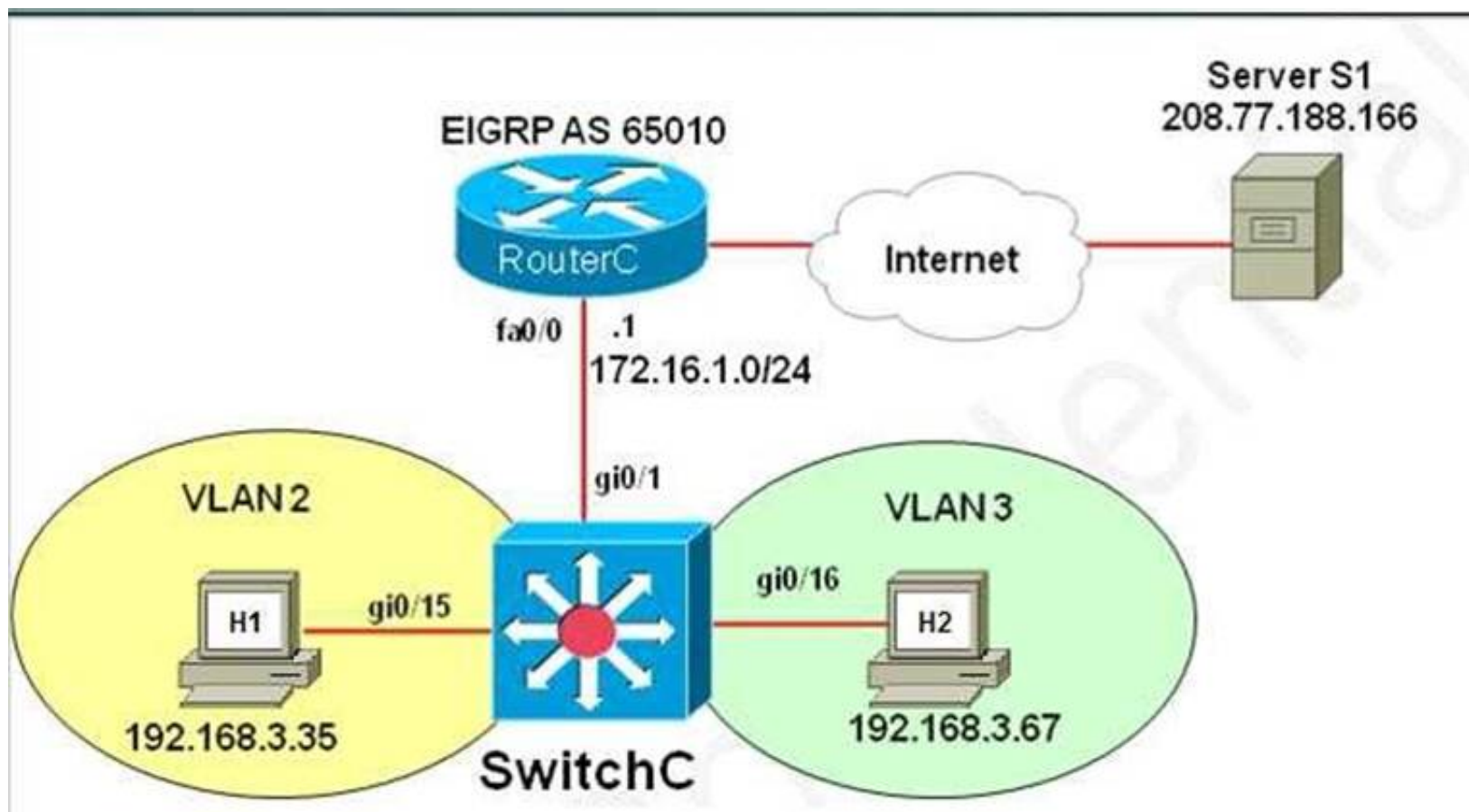
Routed interfaces should use the lowest host on a subnet when possible. The following subnets are available to implement this solution:

- 10.10.10.0/24
- 190.200.250.32/27
- 190.200.250.64/27

Hosts H1 and H2 are configured with the correct IP address and default gateway. SwitchC uses Cisco as the enable password.

Routing must only be enabled for the specific subnets shown in the diagram.

Note: Due to administrative restrictions and requirements you should not add or delete VLANs, changes VLAN port assignments or create trunks. Company policies forbid the use of static or default routing. All routes must be learned via the EIGRP routing protocol.





```
SwitchC
%LINK-3-UPDOWN: Interface GigabitEthernet0/22, changed state to administratively
down
%LINK-3-UPDOWN: Interface GigabitEthernet0/23, changed state to administratively
down
%LINK-3-UPDOWN: Interface GigabitEthernet0/24, changed state to administratively
down
%LINK-3-UPDOWN: Interface GigabitEthernet0/25, changed state to administratively
down
%LINK-3-UPDOWN: Interface GigabitEthernet0/26, changed state to administratively
down
%LINK-3-UPDOWN: Interface GigabitEthernet0/27, changed state to administratively
down
%LINK-3-UPDOWN: Interface GigabitEthernet0/28, changed state to administratively
down
%LINK-3-UPDOWN: Interface GigabitEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed stat
e to up
%LINK-3-UPDOWN: Interface GigabitEthernet0/16, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/16, changed sta
te to up
%LINK-3-UPDOWN: Interface GigabitEthernet0/15, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/15, changed sta
te to up
Press RETURN to get started!
SwitchC>
```

#### Answer:

**Explanation:** There are two ways to configure interVLAN routing in this case:

- + Use RouterC as a “router on a stick” and SwitchC as a pure Layer2 switch. Trunking must be established between RouterC and SwitchC.
- + Only use SwitchC for interVLAN routing without using RouterC, SwitchC should be configured as a Layer 3 switch (which supports ip routing function as a router). No trunking requires.

The question clearly states “No trunking has been configured on RouterC” so RouterC does not contribute to interVLAN routing of hosts H1 & H2 -> SwitchC must be configured as a Layer 3 switch with SVIs for interVLAN routing.

We should check the default gateways on H1 & H2. Click on H1 and H2 and type the “ipconfig” command to get their default gateways.

B. \>ipconfig

We will get the default gateways as follows:

Host1:

+ Default gateway: 190.200.250.33

Host2:

+ Default gateway: 190.200.250.65

Now we have enough information to configure SwitchC (notice the EIGRP AS in this case is 650)

Note: VLAN2 and VLAN3 were created and gi0/10, gi0/11 interfaces were configured as access ports so we don’t need to configure them in this sim.

SwitchC# configure terminal

SwitchC(config)# int gi0/1

SwitchC(config-if)#no switchport

IP address on Gi0/1 interface.

-> without using this command, the simulator does not let you assign

SwitchC(config-if)#

ip address 10.10.10.2 255.255.255.0 ->RouterC has used IP 10.10.10.1 so this is the lowest usable IP address.

SwitchC(config-if)# no shutdown SwitchC(config-if)# exit SwitchC(config)# int vlan 2

SwitchC(config-if)# ip address 190.200.250.33 255.255.255.224

SwitchC(config-if)# no shutdown

SwitchC(config-if)# int vlan 3

SwitchC(config-if)# ip address 190.200.250.65 255.255.255.224

SwitchC(config-if)# no shutdown

SwitchC(config-if)#exit

SwitchC(config)#

ip routing (Notice: MLS will not work without this command)

SwitchC(config)# router eigrp 65010

SwitchC(config-router)# network 10.10.10.0 0.0.0.255

SwitchC(config-router)# network 190.200.250.32 0.0.0.31

SwitchC(config-router)# network 190.200.250.64 0.0.0.31

NOTE: THE ROUTER IS CORRECTLY CONFIGURED, so you will not miss within it in the exam, also don’t modify/delete any port just do the above configuration. Also some reports said the “no auto-summary” command can’t be used in the simulator, in fact it is not necessary because the network 190.200.0.0/16 is not used anywhere else in this topology.

In order to complete the lab, you should expect the ping to SERVER to succeed from the MLS, and from the PCs as well.

Also make sure you use the correct EIGRP AS number (in the configuration above it is 650 but it will change when you take the exam) but we are not allowed to access RouterC so the only way to find out the EIGRP AS is to look at the exhibit above. If you use wrong AS number, no neighbor relationship is formed between RouterC and SwitchC.

In fact, we are pretty sure instead of using two commands “network 190.200.250.32 0.0.0.31 and “network 190.200.250.64 0.0.0.31 we can use one simple command “network 190.200.0.0 because it is the nature of distance vector routing protocol like EIGRP: only major networks need to be advertised; even without “no auto-summary” command the network still works correctly. But in the exam the sim is just a flash based simulator so we should use two above commands, just for sure. But after finishing the configuration, we can use “show run” command to verify, only the summarized network 190.200.0.0 is shown.

#### NEW QUESTION 8

A network engineer must set the load balance method on an existing port channel. Which action must be done to apply a new load balancing method?

- A. Configure the new load balancing method using port-channel load-balance.
- B. Adjust the switch SDM back to "default".
- C. Ensure that IP CEF is enabled globally to support all load balancing methods.
- D. Upgrade the PFC to support the latest load balancing methods.

**Answer:** A

#### NEW QUESTION 9

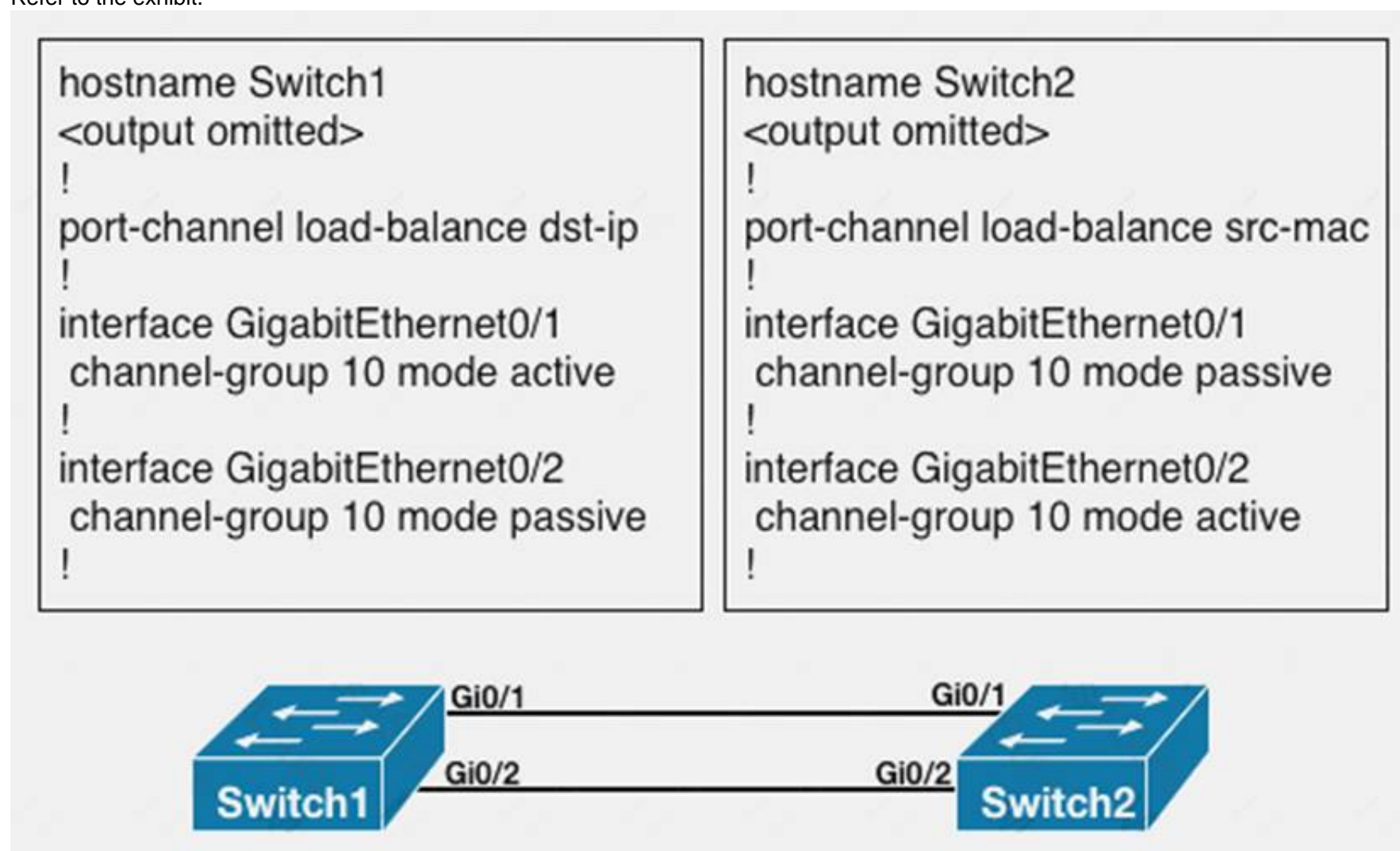
A network engineer has just deployed a non-Cisco device in the network and wants to get information about it from a connected device. Cisco Discovery Protocol is not supported, so the open standard protocol must be configured. Which protocol does the network engineer configure on both devices to accomplish this?

- A. IRDP
- B. LLDP
- C. NDP
- D. LLTD

**Answer:** B

#### NEW QUESTION 10

Refer to the exhibit.



What is the result of the configuration?

- A. The EtherChannels would not form because the load-balancing method must match on the devices.
- B. The EtherChannels would form and function properly even though the load-balancing and EtherChannel modes do not match.
- C. The EtherChannels would form, but network loops would occur because the load-balancing methods do not match.
- D. The EtherChannels would form and both devices would use the dst-ip load-balancing method because Switch1 is configured with EtherChannel mode active.

**Answer:** B

#### NEW QUESTION 10

A network engineer must implement Ethernet links that are capable of transporting frames and IP traffic for different broadcast domains that are mutually isolated. Consider that this is a multivendor environment. Which Cisco IOS switching feature can be used to achieve the task?

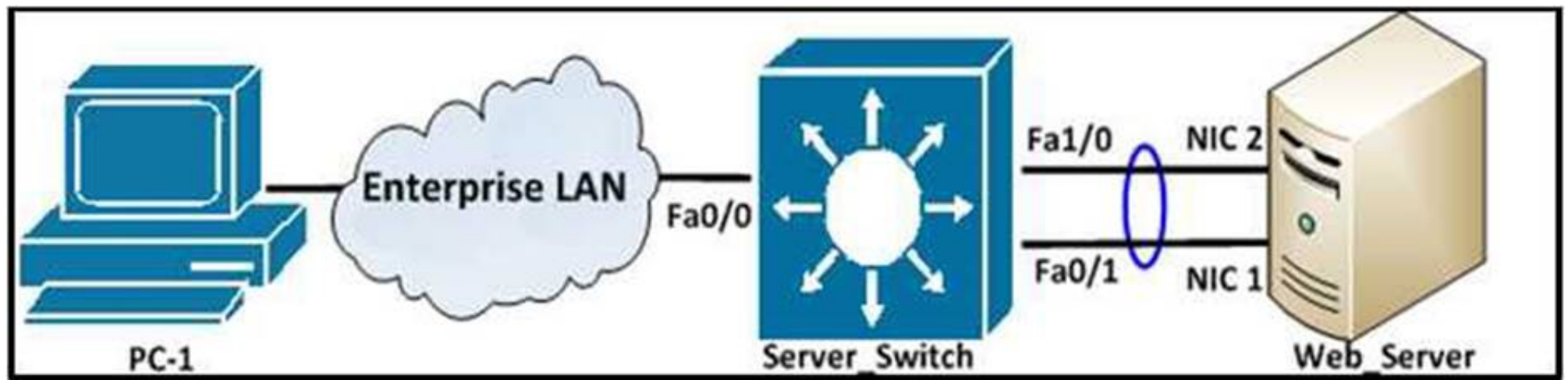
- A. PPP encapsulation with a virtual template
- B. Link Aggregation Protocol at the access layer
- C. dot1q VLAN trunking
- D. Inter-Switch Link

**Answer:** C

#### NEW QUESTION 11

Refer to the exhibit.





Users of PC-1 experience slow connection when a webpage is requested from the server. To increase bandwidth, the network engineer configured an EtherChannel on interfaces Fa1/0 and Fa0/1 of the server farm switch, as shown here:

```
Server_Switch#sh etherchannel load-balance
EtherChannel Load-Balancing Operational State (src-mac): Non-IP: Source MAC address
IPv4: Source MAC address IPv6: Source IP address Server_Switch#
```

However, traffic is still slow. Which action can the engineer take to resolve this issue?

- A. Disable EtherChannel load balancing.
- B. Upgrade the switch IOS to IP services image.
- C. Change the load-balance method to dst-mac.
- D. Contact Cisco TAC to report a bug on the switch.

**Answer: C**

#### NEW QUESTION 15

What happens on a Cisco switch that runs Cisco IOS when an RSTP-configured switch receives 802.1d BPDU?

- A. 802.1d does not understand RSTP BPDUs because they are different versions, but when a RSTP switch receives an 802.1d BPDU, it responds with an 802.1d BPDU and eventually the two switches run 802.1d to communicate.
- B. 802.1d understands RSTP BPDUs because they are the same version, but when a RSTP switch receives a 802.1d BPDU, it responds with a 802.1d BPDU and eventually the two switches run 802.1d to communicate.
- C. 802.1d does not understand RSTP BPDUs because they are different versions, but when a RSTP switch receives a 802.1d BPDU, it does not respond with a 802.1d BPDU.
- D. 802.1d understands RSTP BPDUs because they are the same version, but when a RSTP switch receives a 802.1d BPDU, it does not respond with a 802.1d BPDU and eventually the two switches run 802.1d to communicate.

**Answer: A**

#### NEW QUESTION 18

After UDLD is implemented, a Network Administrator noticed that one port stops receiving UDLD packets. This port continues to reestablish until after eight failed retries. The port then transitions into the errdisable state. Which option describes what causes the port to go into the errdisable state?

- A. Normal UDLD operations that prevent traffic loops.
- B. UDLD port is configured in aggressive mode.
- C. UDLD is enabled globally.
- D. UDLD timers are inconsistent.

**Answer: B**

#### NEW QUESTION 20

A network engineer is extending a LAN segment between two geographically separated data centers. Which enhancement to a spanning-tree design prevents unnecessary traffic from crossing the extended LAN segment?

- A. Modify the spanning-tree priorities to dictate the traffic flow.
- B. Create a Layer 3 transit VLAN to segment the traffic between the sites.
- C. Use VTP pruning on the trunk interfaces.
- D. Configure manual trunk pruning between the two locations.

**Answer: C**

#### NEW QUESTION 22

In a Cisco switch, what is the default period of time after which a MAC address ages out and is discarded?

- A. 100 seconds
- B. 180 seconds
- C. 300 seconds
- D. 600 seconds

**Answer: C**

#### NEW QUESTION 25

Refer to the exhibit.

```
Interface GigabitEthernet1/0/1
switchport access vlan 10
switchport trunk encapsulation dot1q
switchport mode trunk
switchport voice vlan 11
spanning-tree portfast
!
```

Which option shows the expected result if a show vlan command is issued?

A)

```
Switch#sh vlan
```

VLAN	Name	Status	Ports
1	default	active	Gi1/0/2, Gi1/0/3, Gi1/0/4 Gi1/0/5, Gi1/0/6, Gi1/0/7 Gi1/0/8, Gi1/0/9, Gi1/0/10 Gi1/0/11, Gi1/0/12, Gi1/0/13 Gi1/0/14, Gi1/0/15, Gi1/0/16 Gi1/0/17, Gi1/0/18, Gi1/0/19 Gi1/0/20, Gi1/0/21, Gi1/0/22 Gi1/0/23, Gi1/0/24
10	Data	active	
11	Voice	active	
1002	fddi-default	act/unsup	
1003	token-ring-default	act/unsup	
1004	fddinet-default	act/unsup	
1005	trnet-default	act/unsup	

B)

```
Switch#sh vlan
```

VLAN	Name	Status	Ports
1	default	active	Gi1/0/2, Gi1/0/3, Gi1/0/4 Gi1/0/5, Gi1/0/6, Gi1/0/7 Gi1/0/8, Gi1/0/9, Gi1/0/10 Gi1/0/11, Gi1/0/12, Gi1/0/13 Gi1/0/14, Gi1/0/15, Gi1/0/16 Gi1/0/17, Gi1/0/18, Gi1/0/19 Gi1/0/20, Gi1/0/21, Gi1/0/22 Gi1/0/23, Gi1/0/24
10	Data	active	Gi1/0/1
11	Voice	active	Gi1/0/1
1002	fddi-default	act/unsup	
1003	token-ring-default	act/unsup	
1004	fddinet-default	act/unsup	
1005	trnet-default	act/unsup	

C)

```
Switch#sh vlan
```

VLAN	Name	Status	Ports
1	default	active	Gi1/0/1, Gi1/0/2, Gi1/0/3 Gi1/0/4, Gi1/0/5, Gi1/0/6 Gi1/0/7, Gi1/0/8, Gi1/0/9 Gi1/0/10, Gi1/0/11, Gi1/0/12 Gi1/0/13, Gi1/0/14, Gi1/0/15 Gi1/0/16, Gi1/0/17, Gi1/0/18 Gi1/0/19, Gi1/0/20, Gi1/0/21 Gi1/0/22, Gi1/0/23, Gi1/0/24
10	Data	active	
11	Voice	active	Gi1/0/1
1002	fddi-default	act/unsup	
1003	token-ring-default	act/unsup	
1004	fddinet-default	act/unsup	
1005	trnet-default		

D)

```
Switch#sh vlan
```

VLAN	Name	Status	Ports
1	default	active	Gi1/0/2, Gi1/0/3, Gi1/0/4 Gi1/0/5, Gi1/0/6, Gi1/0/7 Gi1/0/8, Gi1/0/9, Gi1/0/10 Gi1/0/11, Gi1/0/12, Gi1/0/13 Gi1/0/14, Gi1/0/15, Gi1/0/16 Gi1/0/17, Gi1/0/18, Gi1/0/19 Gi1/0/20, Gi1/0/21, Gi1/0/22 Gi1/0/23, Gi1/0/24
10	Data	active	Gi1/0/1
11	Voice	active	
1002	fddi-default	act/unsup	
1003	token-ring-default	act/unsup	
1004	fddinet-default	act/unsup	
1005	trnet-default	act/unsup	

- A. Exhibit A
- B. Exhibit B
- C. Exhibit C
- D. Exhibit D

**Answer:** A

### NEW QUESTION 30

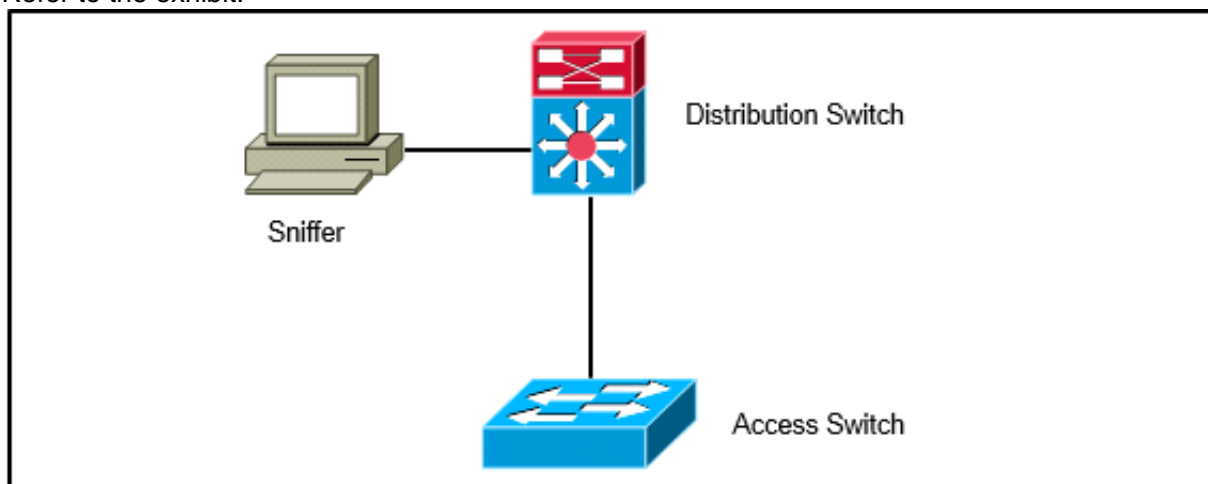
A network engineer must adjust the STP interface attributes to influence root port selection. Which two elements are used to accomplish this? (Choose two.)

- A. port-priority
- B. cost
- C. forward-timers
- D. link type
- E. root guard

**Answer:** AB

### NEW QUESTION 33

Refer to the exhibit.



A network engineer wants to analyze all incoming and outgoing packets for an interface that is connected to an access switch. Which three items must be configured to mirror traffic to a packet sniffer that is connected to the distribution switch? (Choose three.)

- A. A monitor session on the distribution switch with a physical interface as the source and the remote SPAN VLAN as the destination
- B. A remote SPAN VLAN on the distribution and access layer switch
- C. A monitor session on the access switch with a physical interface source and the remote SPAN VLAN as the destination
- D. A monitor session on the distribution switch with a remote SPAN VLAN as the source and physical interface as the destination
- E. A monitor session on the access switch with a remote SPAN VLAN source and the physical interface as the destination
- F. A monitor session on the distribution switch with a physical interface as the source and a physical interface as the destination

**Answer:** BCD

### NEW QUESTION 36

Which statement about the use of SDM templates in a Cisco switch is true?

- A. SDM templates are used to configure system resources in the switch to optimize support for specific features, depending on how the switch is used in the network.
- B. SDM templates are used to create Layer 3 interfaces (switch virtual interfaces) to permit hosts in one VLAN to communicate with hosts in another VLAN.
- C. SDM templates are used to configure ACLs that protect networks and specific hosts from unnecessary or unwanted traffic.
- D. SDM templates are used to configure a set of ACLs that allows the users to manage the flow of traffic handled by the route processor.
- E. SDM templates are configured by accessing the switch using the web interface.

**Answer:** A

### NEW QUESTION 40



While working in the core network building, a technician accidentally bumps the fiber connection between two core switches and damages one of the pairs of fiber. As designed, the link was placed into a non-forwarding state due to a fault with UDLD. After the damaged cable was replaced, the link did not recover. What solution allows the network switch to automatically recover from such an issue?

- A. macros
- B. errdisable autorecovery
- C. IP Event Dampening
- D. command aliases
- E. Bidirectional Forwarding Detection

**Answer:** B

#### NEW QUESTION 41

A network engineer tries to configure storm control on an EtherChannel bundle. What is the result of the configuration?

- A. The storm control settings will appear on the EtherChannel, but not on the associated physical ports.
- B. The configuration will be rejected because storm control is not supported for EtherChannel.
- C. The storm control configuration will be accepted, but will only be present on the physical interfaces.
- D. The settings will be applied to the EtherChannel bundle and all associated physical interfaces.

**Answer:** D

#### NEW QUESTION 46

Which statement about Cisco devices learning about each other through Cisco Discovery Protocol is true?

- A. Each device sends periodic advertisements to multicast address 01:00:0C:CC:CC:CC.
- B. Each device broadcasts periodic advertisements to all of its neighbors.
- C. Each device sends periodic advertisements to a central device that builds the network topology.
- D. Each device sends periodic advertisements to all IP addresses in its ARP table.

**Answer:** A

#### NEW QUESTION 49

An access switch has been configured with an EtherChannel port. After configuring SPAN to monitor this port, the network administrator notices that not all traffic is being replicated to the management server. What is a cause for this issue?

- A. VLAN filters are required to ensure traffic mirrors effectively.
- B. SPAN encapsulation replication must be enabled to capture EtherChannel destination traffic.
- C. The port channel can be used as a SPAN source, but not a destination.
- D. RSPAN must be used to capture EtherChannel bidirectional traffic.

**Answer:** C

#### NEW QUESTION 54

Refer to the exhibit.

```
3512xl(config)#int fastEthernet 0/1
3512xl(config-if)#switchport mode trunk
3512xl(config-if)#switchport trunk encapsulation dot1q
```

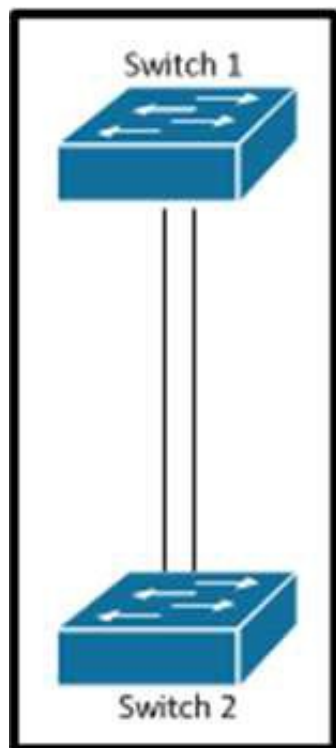
How many bytes are added to each frame as a result of the configuration?

- A. 4-bytes except the native VLAN
- B. 8-bytes except the native VLAN
- C. 4-bytes including native VLAN
- D. 8-bytes including native VLAN

**Answer:** A

#### NEW QUESTION 58

Refer to the exhibit.



Which set of configurations will result in all ports on both switches successfully bundling into an EtherChannel?

- A. switch1channel-group 1 mode active switch2channel-group 1 mode auto
- B. switch1channel-group 1 mode desirable switch2channel-group 1 mode passive
- C. switch1channel-group 1 mode on switch2channel-group 1 mode auto
- D. switch1channel-group 1 mode desirable switch2channel-group 1 mode auto

**Answer:** D

#### NEW QUESTION 63

For client server failover purposes, the application server team has indicated that they must not have the standard 30 second delay before their switchport enters a forwarding state. For their disaster recovery feature to operate successfully, they require the switchport to enter a forwarding state immediately. Which spanning-tree feature satisfies this requirement?

- A. Rapid Spanning-Tree
- B. Spanning-Tree Timers
- C. Spanning-Tree FastPort
- D. Spanning-Tree PortFast
- E. Spanning-Tree Fast Forward

**Answer:** D

#### NEW QUESTION 65

What effect does the mac address-table aging-time 180 command have on the MAC address-table?

- A. This is how long a dynamic MAC address will remain in the CAM table.
- B. The MAC address-table will be flushed every 3 minutes.
- C. The default timeout period will be 360 seconds.
- D. ARP requests will be processed less frequently by the switch.
- E. The MAC address-table will hold addresses 180 seconds longer than the default of 10 minutes.

**Answer:** A

#### NEW QUESTION 67

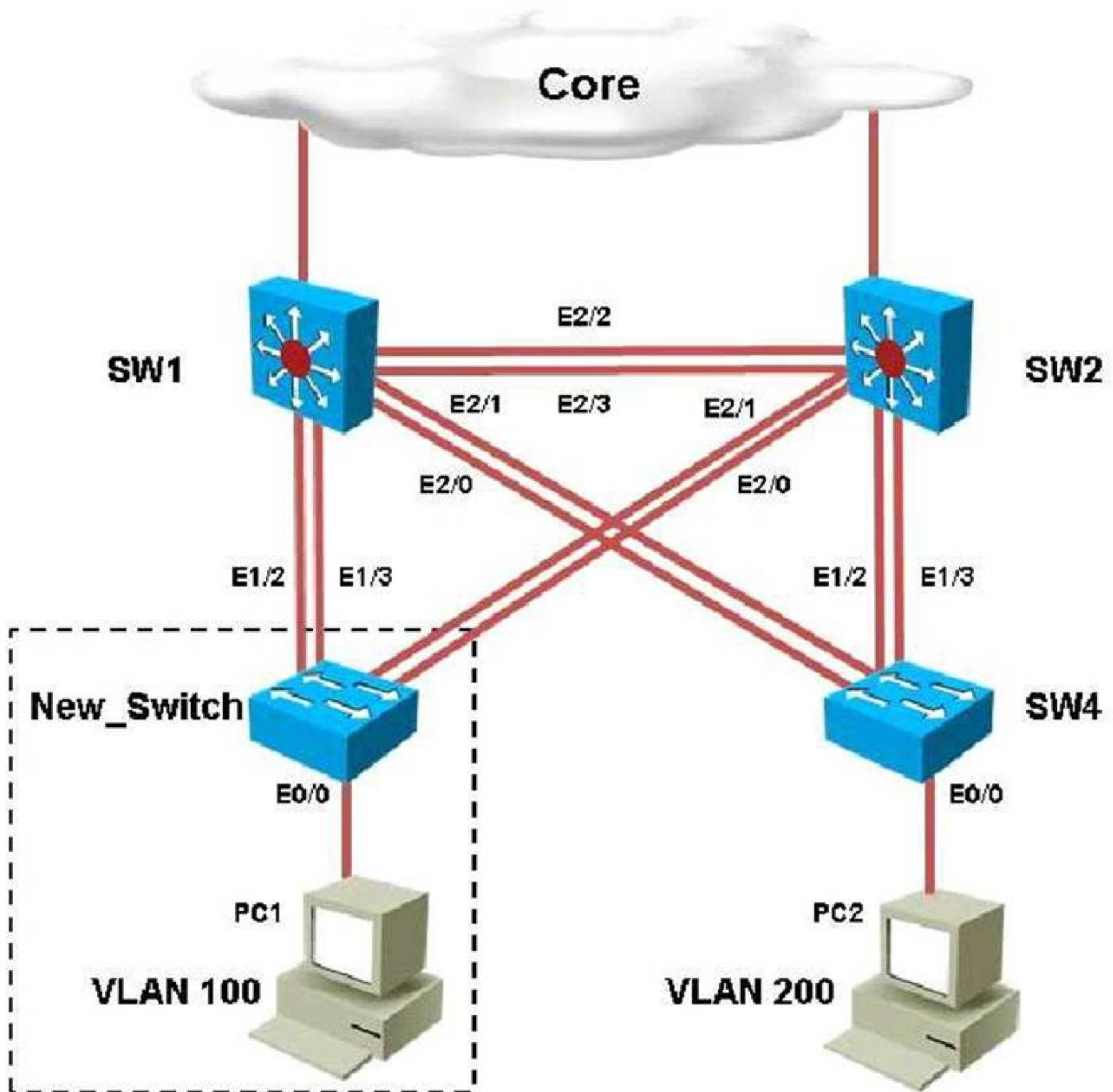
A network engineer wants to add a new switch to an existing switch stack. Which configuration must be added to the new switch before it can be added to the switch stack?

- A. No configuration must be added.
- B. stack ID
- C. IP address
- D. VLAN information
- E. VTP information

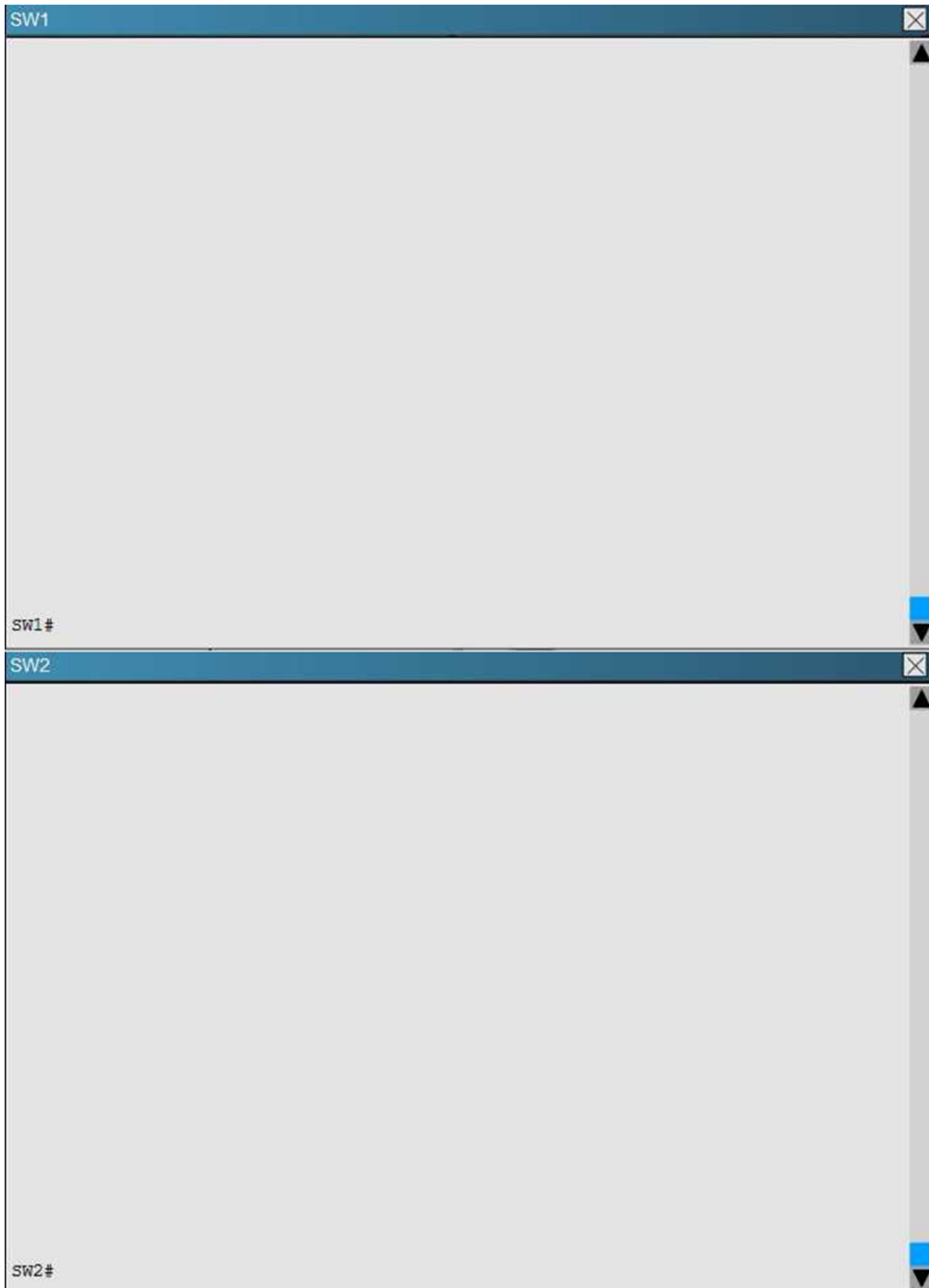
**Answer:** A

#### NEW QUESTION 68

You have been asked to install and configure a new switch in a customer network. Use the console access to the existing and new switches to configure and verify correct device configuration.







Refer to the configuration. For which configured VLAN are untagged frames sent over trunk between SW1 and SW2?

- A. VLAN1
- B. VLAN 99
- C. VLAN 999
- D. VLAN 40
- E. VLAN 50
- F. VLAN 200
- G. VLAN 300

**Answer:** B

**Explanation:** The native VLAN is used for untagged frames sent along a trunk. By issuing the “show interface trunk” command on SW1 and SW2 we see the native VLAN is 99.

#### NEW QUESTION 70

After the implementation of several different types of switches from different vendors, a network engineer notices that directly connected devices that use Cisco Discovery Protocol are not visible. Which vendor-neutral protocol could be used to resolve this issue?

- A. Local Area Mobility
- B. Link Layer Discovery Protocol
- C. NetFlow
- D. Directed Response Protocol

**Answer:** B

#### NEW QUESTION 71

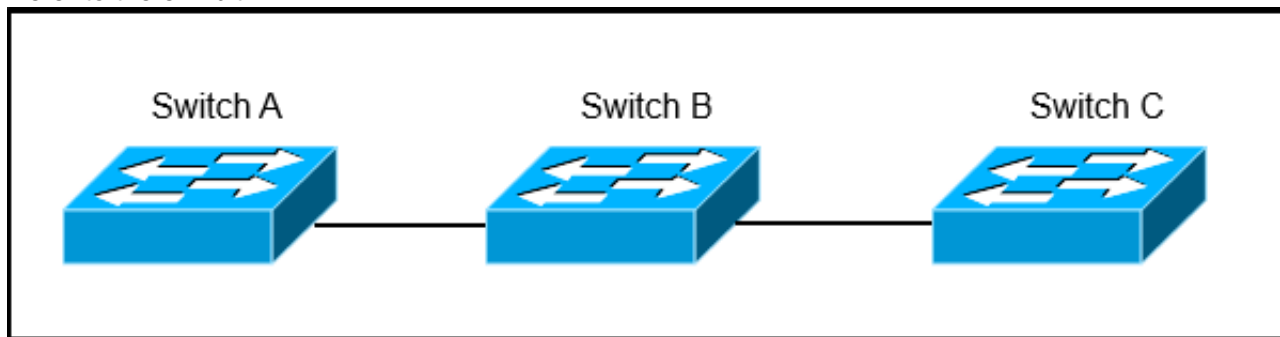
Pilot testing of the new switching infrastructure finds that when the root port is lost, STP immediately replaces the root port with an alternative root port. Which spanning-tree technology is used to accomplish backup root port selection?

- A. PVST+
- B. PortFast
- C. BackboneFast
- D. UplinkFast
- E. Loop Guard
- F. UDLD

**Answer:** D

#### NEW QUESTION 72

Refer to the exhibit.



Switch A, B, and C are trunked together and have been properly configured for VTP. Switch B has all VLANs, but Switch C is not receiving traffic from certain VLANs. What would cause this issue?

- A. A VTP authentication mismatch occurred between Switch A and Switch B.
- B. The VTP revision number of Switch B is higher than that of Switch A.
- C. VTP pruning is configured globally on all switches and it removed VLANs from the trunk interface that is connected to Switch C.
- D. The trunk between Switch A and Switch B is misconfigured.

**Answer:** C

#### NEW QUESTION 75

A network engineer configured an Ethernet switch using these commands. Switchone(config) # Spanning-tree portfast bpduguard default  
 Which statement about the spanning-tree portfast feature on the switch is true?

- A. If an interface is enabled for portfast receives BDPU, the port goes through the spanning-tree listening, learning, and forwarding states.
- B. If an interface is enabled for portfast receives BDPU, the port does not go through the spanning-tree listening, learning, and forwarding states.
- C. If an interface is enabled for portfast receives BDPU, the port is shut down immediately.
- D. If an interface is enabled for portfast receives BDPU, the port goes into the spanning-tree inconsistent state.

**Answer:** A

#### NEW QUESTION 80

What is required for a LAN switch to support 802.1q Q-in-Q encapsulation?

- A. Support less than 1500 MTU
- B. Support 1504 MTU or higher
- C. Support 1522 layer 3 IP and IPX packet
- D. Support 1547 MTU only

**Answer:** B

#### NEW QUESTION 81

After an EtherChannel is configured between two Cisco switches, interface port channel 1 is in the down/down state. Switch A is configured with channel-group 1 mode active, while Switch B is configured with channel-group 1 mode desirable. Why is the EtherChannel bundle not working?

- A. The switches are using mismatched EtherChannel negotiation modes.
- B. The switch ports are not configured in trunking mode.
- C. LACP priority must be configured on both switches.
- D. The channel group identifier must be different for Switch A and Switch B.

**Answer:** A

#### NEW QUESTION 85

What does the command `vlan dot1q tag native` accomplish when configured under global configuration?

- A. All frames within the native VLAN are tagged, except when the native VLAN is set to 1.
- B. It allows control traffic to pass using the non-default VLAN.
- C. It removes the 4-byte dot1q tag from every frame that traverses the trunk interface(s).
- D. Control traffic is tagged.

**Answer:** D

#### NEW QUESTION 90

Which command does a network engineer use to verify the spanning-tree status for VLAN 10?

- A. `switch# show spanning-tree vlan 10`
- B. `switch# show spanning-tree bridge`
- C. `switch# show spanning-tree brief`
- D. `switch# show spanning-tree summary`
- E. `switch# show spanning-tree vlan 10 brief`

**Answer:** A

#### NEW QUESTION 95

Which statement about the use of PAgP link aggregation on a Cisco switch that is running Cisco IOS Software is true?

- A. PAgP modes are off, auto, desirable, and on.
- B. Only the combinations auto-desirable, desirable-desirable, and on-on allow the formation of a channel.
- C. PAgP modes are active, desirable, and on.
- D. Only the combinations active-desirable, desirable-desirable, and on-on allow the formation of a channel.
- E. PAgP modes are active, desirable, and on.
- F. Only the combinations active-active, desirable-desirable, and on-on allow the formation of a channel.
- G. PAgP modes are off, active, desirable, and on.
- H. Only the combinations auto-auto, desirable-desirable, and on-on allow the formation of a channel.

**Answer:** A

#### NEW QUESTION 97

Refer to the exhibit.

```
Switch# Show run
interface FastEthernet0/13
spanning-tree cost 1000
!
interface FastEthernet0/14
spanning-tree cost 1000
!
interface FastEthernet0/15
spanning-tree cost 1000
!
interface FastEthernet0/20
spanning-tree cost 2
!
interface FastEthernet0/21
spanning-tree cost 1
```

All ports are members of VLAN 10. Considering the default cost of upstream bridges to the root bridge is equal, which option will be the new root port for VLAN 10?

- A. interface f0/13
- B. interface f0/14
- C. interface f0/15
- D. interface f0/21

**Answer:** D



**NEW QUESTION 102**

Which option describes a limitation of LLDP?

- A. LLDP cannot provide information about VTP.
- B. LLDP does not support TLVs.
- C. LLDP can discover only Windows servers.
- D. LLDP can discover up to two devices per port.

**Answer:** A

**NEW QUESTION 106**

A network engineer configured a fault-tolerance link on Gigabit Ethernet links G0/1, G0/2, G0/3, and G0/4 between two switches using Ethernet port-channel. Which action allows interface G0/1 to always actively forward traffic in the port-channel?

- A. Configure G0/1 as half duplex and G0/2 as full duplex.
- B. Configure LACP port-priority on G0/1 to 1.
- C. Configure LACP port-priority on G0/1 to 65535.
- D. LACP traffic goes through G0/4 because it is the highest interface ID.

**Answer:** B

**NEW QUESTION 109**

What is the default value for the errdisable recovery interval in a Cisco switch?

- A. 30 seconds
- B. 100 seconds
- C. 300 seconds
- D. 600 seconds

**Answer:** C

**NEW QUESTION 113**

What is the maximum number of 10 Gigabit Ethernet connections that can be utilized in an EtherChannel for the virtual switch link?

- A. 4
- B. 6
- C. 8
- D. 12

**Answer:** C

**NEW QUESTION 116**

Which option is a possible cause for an errdisabled interface?

- A. routing loop
- B. cable unplugged
- C. STP loop guard
- D. security violation

**Answer:** D

**NEW QUESTION 118**

Which feature must be enabled to eliminate the broadcasting of all unknown traffic to switches that are not participating in the specific VLAN?

- A. VTP pruning
- B. port-security
- C. storm control
- D. bpdguard

**Answer:** A

**NEW QUESTION 123**

What is the default interval at which Cisco devices send Cisco Discovery Protocol advertisements?

- A. 30 seconds
- B. 60 seconds
- C. 120 seconds
- D. 300 seconds

**Answer:** B

**NEW QUESTION 124**

Which option lists the information that is contained in a Cisco Discovery Protocol advertisement?

- A. native VLAN IDs, port-duplex, hardware platform
- B. native VLAN IDs, port-duplex, memory errors
- C. native VLAN IDs, memory errors, hardware platform
- D. port-duplex, hardware platform, memory errors

**Answer:** A

#### NEW QUESTION 129

A network engineer deployed a switch that operates the LAN base feature set and decides to use the SDM VLAN template. The SDM template is causing the CPU of the switch to spike during peak working hours. What is the root cause of this issue?

- A. The VLAN receives additional frames from neighboring switches.
- B. The SDM VLAN template causes the MAC address-table to overflow.
- C. The VLAN template disables routing in hardware.
- D. The switch needs to be rebooted before the SDM template takes effect.

**Answer:** C

#### NEW QUESTION 134

When two MST instances (MST 1 and MST 2) are created on a switch, what is the total number of spanning-tree instances running on the switch?

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

**Answer:** C

#### NEW QUESTION 136

Which option lists the modes that are available for configuring UDLD on a Cisco switch?

- A. normal and aggressive
- B. active and aggressive
- C. normal and active
- D. normal and passive
- E. normal and standby

**Answer:** A

#### NEW QUESTION 138

Which technique automatically limits VLAN traffic to only the switches that require it?

- A. access lists
- B. DTP in nonegotiate
- C. VTP pruning
- D. PBR

**Answer:** C

#### NEW QUESTION 140

A new network that consists of several switches has been connected together via trunking interfaces. If all switches currently have the default VTP domain name "null", which statement describes what happens when a domain name is configured on one of the switches?

- A. The switch with the non-default domain name restores back to "null" upon reboot.
- B. Switches with higher revision numbers does not accept the new domain name.
- C. VTP summary advertisements are sent out of all ports with the new domain name.
- D. All other switches with the default domain name become VTP clients.

**Answer:** C

#### NEW QUESTION 145

After implementing VTP, the extended VLANs are not being propagated to other VTP switches. What should be configured for extended VLANs?

- A. VTP does not support extended VLANs and should be manually added to all switches.
- B. Enable VTP version 3, which supports extended VLAN propagation.
- C. VTP authentication is required when using extended VLANs because of their ability to cause network instability.
- D. Ensure that all switches run the same Cisco IOS versio
- E. Extended VLANs will not propagate to different IOS versions when extended VLANs are in use.

**Answer:** B

#### NEW QUESTION 147

While doing network discovery using Cisco Discovery Protocol, it is found that rapid error tracking is not currently enabled. Which option must be enabled to allow for enhanced reporting mechanisms using Cisco Discovery Protocol?

- A. Cisco Discovery Protocol version 2
- B. Cisco IOS Embedded Event Manager
- C. logging buffered
- D. Cisco Discovery Protocol source interface
- E. Cisco Discovery Protocol logging options

**Answer:** A

#### NEW QUESTION 148

In which portion of the frame is the 802.1q header found?

- A. within the Ethernet header
- B. within the Ethernet payload
- C. within the Ethernet FCS
- D. within the Ethernet source MAC address

**Answer:** A

#### NEW QUESTION 151

Which VLAN range is eligible to be pruned when a network engineer enables VTP pruning on a switch?

- A. VLANs 1-1001
- B. VLANs 1-4094
- C. VLANs 2-1001
- D. VLANs 2-4094

**Answer:** C

#### NEW QUESTION 153

What is the maximum number of switches that can be stacked using Cisco StackWise?

- A. 4
- B. 5
- C. 8
- D. 9
- E. 10
- F. 13

**Answer:** D

#### NEW QUESTION 157

Which SDM template disables routing and supports the maximum number of unicast MAC addresses?

- A. VLAN
- B. access
- C. default
- D. routing

**Answer:** A

#### NEW QUESTION 158

##### SIMULATION

Scenario:

You work for SWITCH.com. They have just added a new switch (SwitchB) to the existing network as shown in the topology diagram.

RouterA is currently configured correctly and is providing the routing function for devices on SwitchA and SwitchB. SwitchA is currently configured correctly, but will need to be modified to support the addition of SwitchB. SwitchB has a minimal configuration. You have been tasked with completing the needed configuring of SwitchA and SwitchB. SwitchA and SwitchB use Cisco as the enable password.


Configuration Requirements for SwitchA


The VTP and STP configuration modes on SwitchA should not be modified.

- SwitchA needs to be the root switch for vlans 11, 12, 13, 21, 22 and 23. All other vlans should be left are their default values.

Configuration Requirements for SwitchB


- Vlan 21

 Name: Marketing

 will support two servers attached to fa0/9 and fa0/10

- Vlan 22

 Name: Sales

 will support two servers attached to fa0/13 and fa0/14

- Vlan 23

o Name: Engineering

o will support two servers attached to fa0/15 and fa0/16

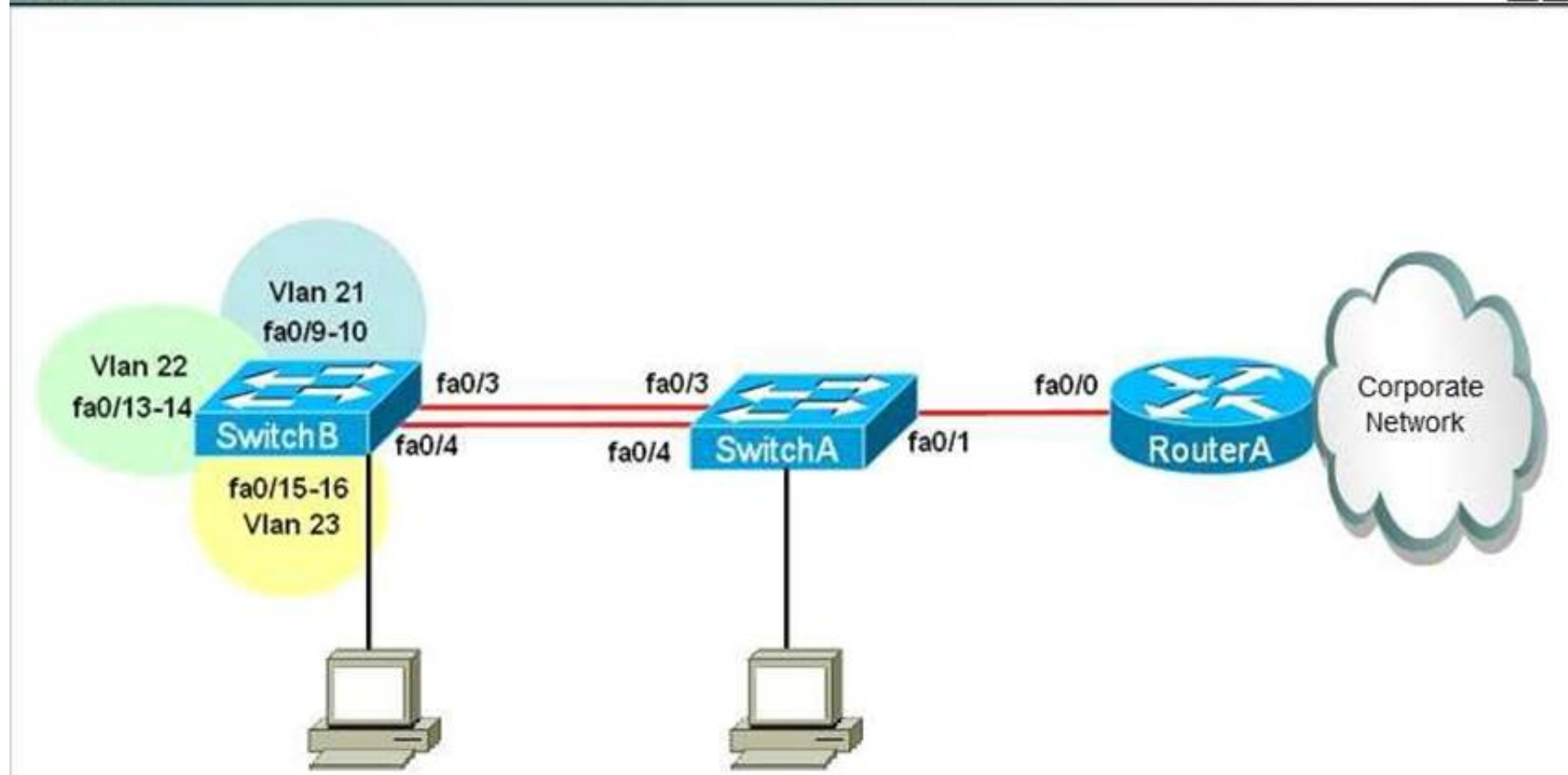
- Access ports that connect to server should transition immediately to forwarding state upon detecting the connection of a device.
- SwitchB VTP mode needs to be the same as SwitchA.
- SwitchB must operate in the same spanning tree mode as SwitchA
- No routing is to be configured on SwitchB
- Only the SVI vlan 1 is to be configured and it is to use address 192.168.1.11/24



#### Inter-switch Connectivity Configuration Requirements

- For operational and security reasons trunking should be unconditional and Vlan 1, 21, 22 and 23 should be tagged when traversing the trunk link.
- The two trunks between SwitchA and SwitchB need to be configured in a mode that allows for the maximum use of their bandwidth for all vlans. This mode should be done with a non-proprietary protocol, with SwitchA controlling activation.
- Propagation of unnecessary broadcasts should be limited using manual pruning on this trunk link.

#### Topology



#### Answer:

**Explanation:** Here are steps: hostname SWITCH\_B

```
!
!
vlan 21
name Marketing
vlan 22
name Sales
vlan 23
name Engineering
!
!
interface FastEthernet0/3
switchport trunk allowed vlan 1,21-23
channel-protocol lacp
channel-group 1 mode passive
switchport mode trunk
!
interface FastEthernet0/4
switchport trunk allowed vlan 1,21-23
channel-protocol lacp
channel-group 1 mode passive
switchport mode trunk
!
interface FastEthernet0/9
switchport access vlan 21
switchport mode access
spanning-tree portfast
!
interface FastEthernet0/10
switchport access vlan 21
switchport mode access
spanning-tree portfast
!
interface FastEthernet0/13
switchport access vlan 22
switchport mode access
spanning-tree portfast
!
interface FastEthernet0/14
switchport access vlan 22
switchport mode access
spanning-tree portfast
!
interface FastEthernet0/15
switchport access vlan 23
switchport mode access
spanning-tree portfast
!
interface FastEthernet0/16
switchport access vlan 23
switchport mode access
spanning-tree portfast
!
!
interface GigabitEthernet1/1
!
interface GigabitEthernet1/2
!
interface Port-channel 1
switchport mode trunk
switchport trunk encapsulation dot1q
spanning-tree allowed vlans 1,21-23
!
interface Vlan1
ip address 192.168.1.11 255.255.255.0
!
end
SWITCH_B(config)# hostname SWITCH_A
!
spanning-tree vlan 11 root primary
spanning-tree vlan 12 root primary
spanning-tree vlan 13 root primary
spanning-tree vlan 21 root primary
spanning-tree vlan 22 root primary
spanning-tree vlan 23 root primary
```

```
!  
interface FastEthernet0/3  
switchport trunk allowed vlan 1,21-23 channel-protocol lacp  
channel-group 1 mode active switchport mode trunk  
!  
interface FastEthernet0/4  
switchport trunk allowed vlan 1,21-23 channel-protocol lacp  
channel-group 1 mode active switchport mode trunk  
!  
interface FastEthernet0/21 switchport access vlan 21 switchport mode access  
!  
interface FastEthernet0/22 switchport access vlan 22 switchport mode access  
!  
interface FastEthernet0/23 switchport access vlan 23 switchport mode access  
!  
interface GigabitEthernet1/1  
!  
interface GigabitEthernet1/2  
!  
interface Port-channel 1  
!  
interface Vlan1 no ip address shutdown  
!  
ip default-gateway 192.168.1.1  
!  
!  
End
```

#### NEW QUESTION 162

After reviewing UDLD status on switch ports, an engineer notices that the." Which statement describes what this indicates about the status of the port?

- A. The port is fully operational and no known issues are detected.
- B. The bidirectional status of "unknown" indicates that the port will go into the disabled state because it stopped receiving UDLD packets from its neighbor.
- C. UDLD moved into aggressive mode after inconsistent acknowledgements were detected.
- D. The UDLD port is placed in the "unknown" state for 5 seconds until the next UDLD packet is received on the interface.

**Answer:** A

**Explanation:** Topic 2, Exam Set B

#### NEW QUESTION 165

Which database is used to determine the validity of an ARP packet based on a valid IP-to-MAC address binding?

- A. DHCP snooping database
- B. dynamic ARP database
- C. dynamic routing database
- D. static ARP database

**Answer:** A

#### NEW QUESTION 166

Which authentication service is needed to configure 802.1x?

- A. RADIUS with EAP Extension
- B. TACACS+
- C. RADIUS with CoA
- D. RADIUS using VSA

**Answer:** A

#### NEW QUESTION 168

What is the default HSRP priority?

- A. 50
- B. 100
- C. 120
- D. 1024

**Answer:** B

#### NEW QUESTION 173

When IP Source Guard with source IP filtering is enabled on an interface, which feature must be enabled on the access VLAN for that interface?

- A. DHCP snooping
- B. storm control
- C. spanning-tree portfast

D. private VLAN

**Answer:** A

#### NEW QUESTION 176

To follow the Layer 2 switching guidelines, a network engineer decides to create a separate spanning tree for every group of 10 VLANs. Which version of spanning tree is appropriate to meet the company policy?

- A. MST
- B. PVST+
- C. RSTP
- D. RPVST+
- E. STP

**Answer:** A

#### NEW QUESTION 180

Which command would a network engineer apply to error-disable a switchport when a packet-storm is detected?

- A. router(config-if)#storm-control action shutdown
- B. router(config-if)#storm-control action trap
- C. router(config-if)#storm-control action error
- D. router(config-if)#storm-control action enable

**Answer:** A

#### NEW QUESTION 182

After port security is deployed throughout an enterprise campus, the network team has been overwhelmed with port reset requests. They decide to configure the network to automate the process of re-enabling user ports. Which command accomplishes this task?

- A. switch(config)# errdisable recovery interval 180
- B. switch(config)# errdisable recovery cause psecure-violation
- C. switch(config)# switchport port-security protect
- D. switch(config)# switchport port-security aging type inactivity
- E. switch(config)# errdisable recovery cause security-violation

**Answer:** B

#### NEW QUESTION 184

A switch is added into the production network to increase port capacity. A network engineer is configuring the switch for DHCP snooping and IP Source Guard, but is unable to configure ip verify source under several of the interfaces. Which option is the cause of the problem?

- A. The local DHCP server is disabled prior to enabling IP Source Guard.
- B. The interfaces are configured as Layer 3 using the no switchport command.
- C. No VLANs exist on the switch and/or the switch is configured in VTP transparent mode.
- D. The switch is configured for sdm prefer routing as the switched database management template.
- E. The configured SVIs on the switch have been removed for the associated interfaces.

**Answer:** B

#### NEW QUESTION 188

Which switch feature prevents traffic on a LAN from being overwhelmed by continuous multicast or broadcast traffic?

- A. storm control
- B. port security
- C. VTP pruning
- D. VLAN trunking

**Answer:** A

#### NEW QUESTION 191

Ferris Plastics, Inc. is a medium sized company, with an enterprise network (access, distribution and core switches) that provides LAN connectivity from user PCs to corporate servers. The distribution switches are configured to use HSRP to provide a high availability solution.

- DSW1 -primary device for VLAN 101 VLAN 102 and VLAN 105
- DSW2 - primary device for VLAN 103 and VLAN 104
- A failure of GigabitEthernet1/0/1 on primary device should cause the primary device to release its status as the primary device, unless GigabitEthernet1/0/1 on backup device has also failed.

Troubleshooting has identified several issues. Currently all interfaces are up. Using the running configurations and show commands, you have been asked to investigate and respond to the following question.





If GigabitEthernet1/0/1 on DSW2 is shutdown, what will be the resulting priority value of the VLAN 105 HSRP group on router DSW2?

- A. 90  
B. 100  
C. 150  
D. 200

**Answer: A**

### NEW QUESTION 194

A network engineer configures port security and 802.1x on the same interface. Which option describes what this configuration allows?

- A. It allows port security to secure the MAC address that 802.1x authenticates.  
B. It allows port security to secure the IP address that 802.1x authenticates.  
C. It allows 802.1x to secure the MAC address that port security authenticates.  
D. It allows 802.1x to secure the IP address that port security authenticates.

**Answer: A**

### NEW QUESTION 198

A network administrator configures 10 extended VLANs ranging from VLANs 3051 to 3060 in an enterprise network. Which version of VTP supports these extended VLANs?

- A. version 1
- B. version 2
- C. version 3
- D. VTP does not recognize extended VLANs.

**Answer: C**

### NEW QUESTION 201

Which statement describes one major issue that VTP can cause in an enterprise network when a new switch is introduced in the network in VTP mode server?

- A. It can cause network access ports to go into err-disabled state.
- B. It can cause a network-wide VLAN configuration change if the revision number on the new switch is higher.
- C. It can cause a network-wide VLAN configuration change if the revision number on the new switch is lower.
- D. It can cause routing loops.

**Answer: B**

### NEW QUESTION 206

Which First Hop Redundancy Protocol is an IEEE Standard?

- A. GLBP
- B. HSRP
- C. VRRP
- D. OSPF

**Answer:** C

**NEW QUESTION 207**

On which interface can port security be configured?

- A. static trunk ports
- B. destination port for SPAN
- C. EtherChannel port group
- D. dynamic access point

**Answer:** A

**NEW QUESTION 212**

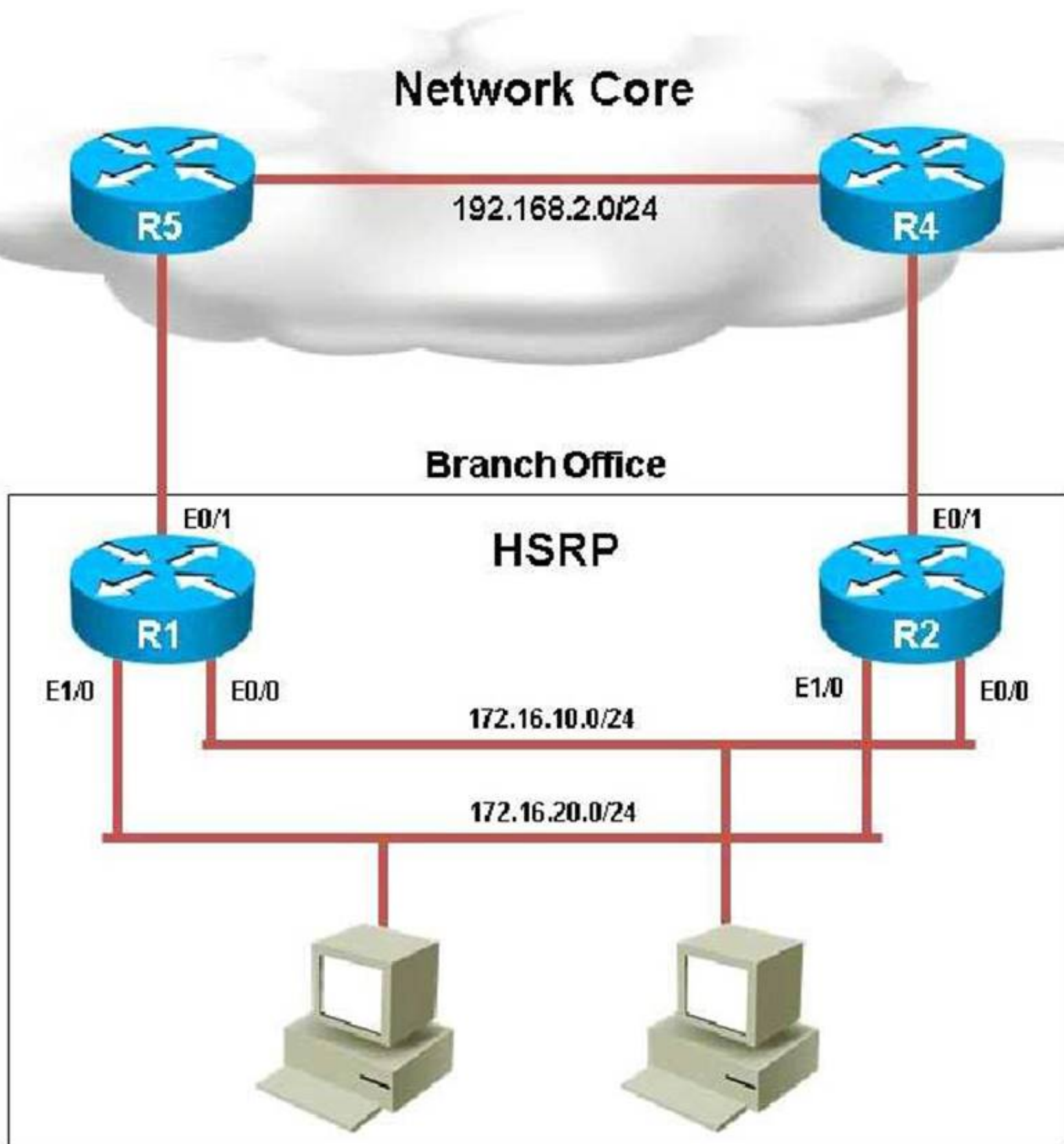
The network monitoring application alerts a network engineer of a client PC that is acting as a rogue DHCP server. Which two commands help trace this PC when the MAC address is known? (Choose two.)

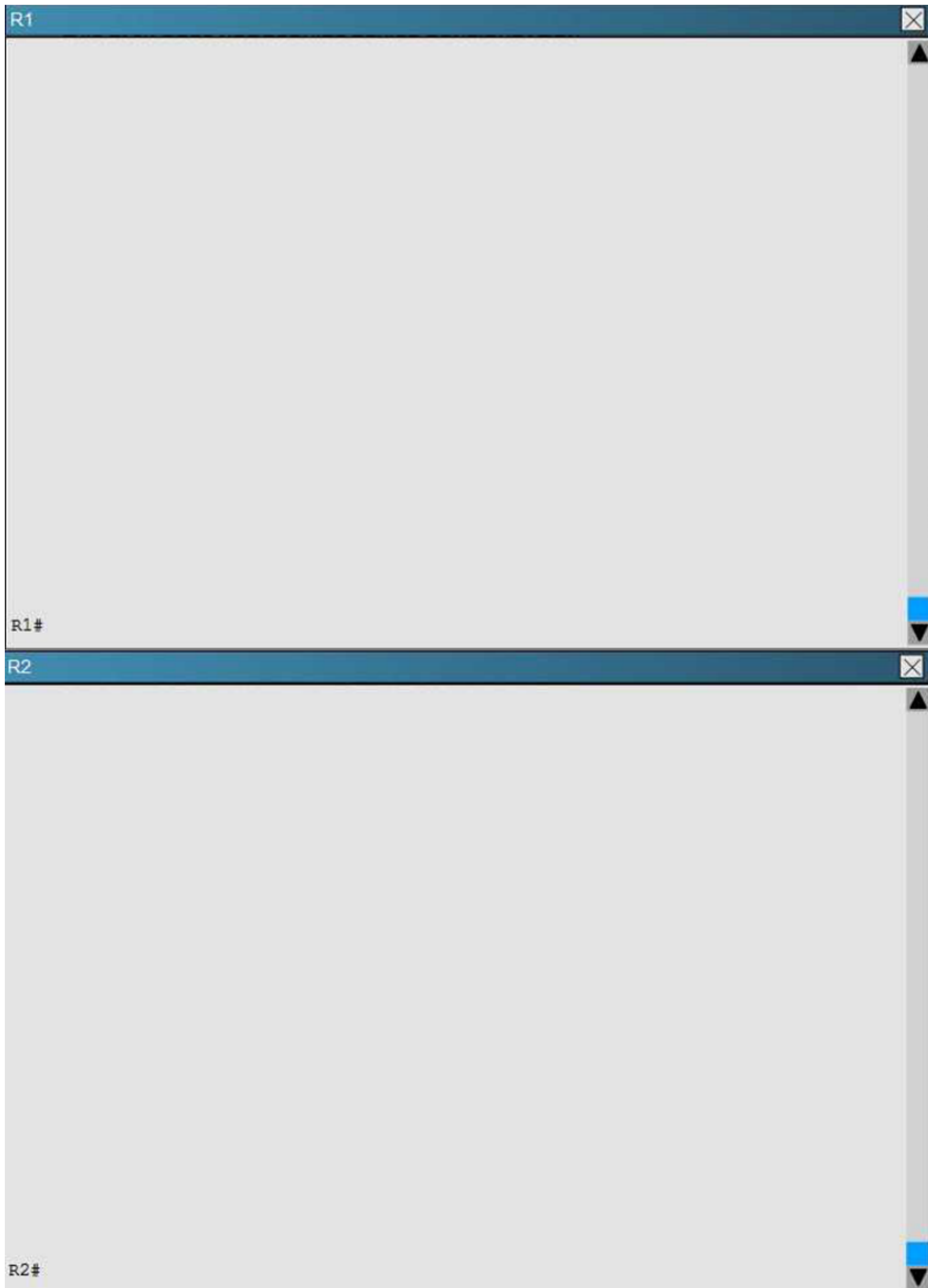
- A. switch# show mac address-table
- B. switch# show port-security
- C. switch# show ip verify source
- D. switch# show ip arp inspection
- E. switch# show mac address-table address <mac address>

**Answer:** AE

**NEW QUESTION 213**

Your customer has asked you to come in and verify the operation of routers R1 and R2 which are configured to use HSRP. They have questions about how these two devices will perform in the event of a device failure.





What issue is causing Router R1 and R2 to both be displayed as the HSRP active router for group 2?

- A. The HSRP group number mismatch
- B. The HSRP group authentication is misconfigured
- C. The HSRP Hello packets are blocked
- D. The HSRP timers mismatch
- E. The HSRP group priorities are different

**Answer: B**



#### NEW QUESTION 214

Refer to the exhibit.

```
username cisco password cisco
!
aaa new-model
radius-server host 10.1.1.50 auth-port 1812 key C1sc0123
aaa authentication login default group radius local line
aaa authentication logging NO_AUTH none
!
line vty 0 15
login authentication default
password linepass
line console 0
login authentication NO_AUTH
```

When a network administrator is attempting an SSH connection to the device, in which order does the device check the login credentials?

- A. RADIUS server, local username, line password
- B. RADIUS server, line password, local username
- C. Line password, local username, RADIUS server
- D. Line password, RADIUS server, local username

**Answer:** A

#### NEW QUESTION 219

Refer to the exhibit.

```
%GLBP-4-DUPADDR: Duplicate address
```

Which option describes the reason for this message in a GLBP configuration?

- A. Unavailable GLBP active forwarder
- B. Incorrect GLBP IP address
- C. HSRP configured on same interface as GLBP
- D. Layer 2 loop

**Answer:** D

#### NEW QUESTION 220

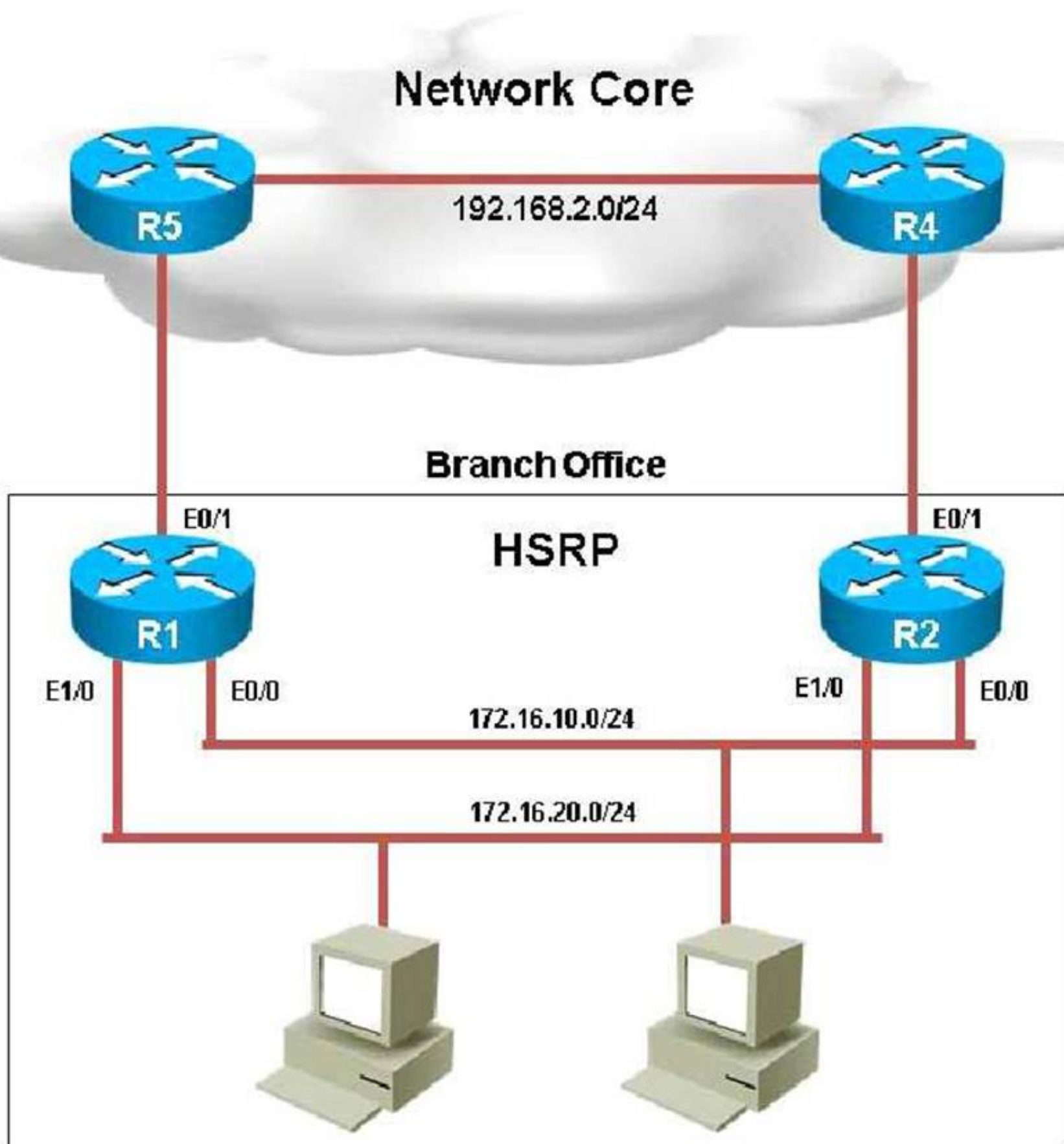
Which private VLAN can have only one VLAN and be a secondary VLAN that carries unidirectional traffic upstream from the hosts toward the promiscuous ports and the gateway?

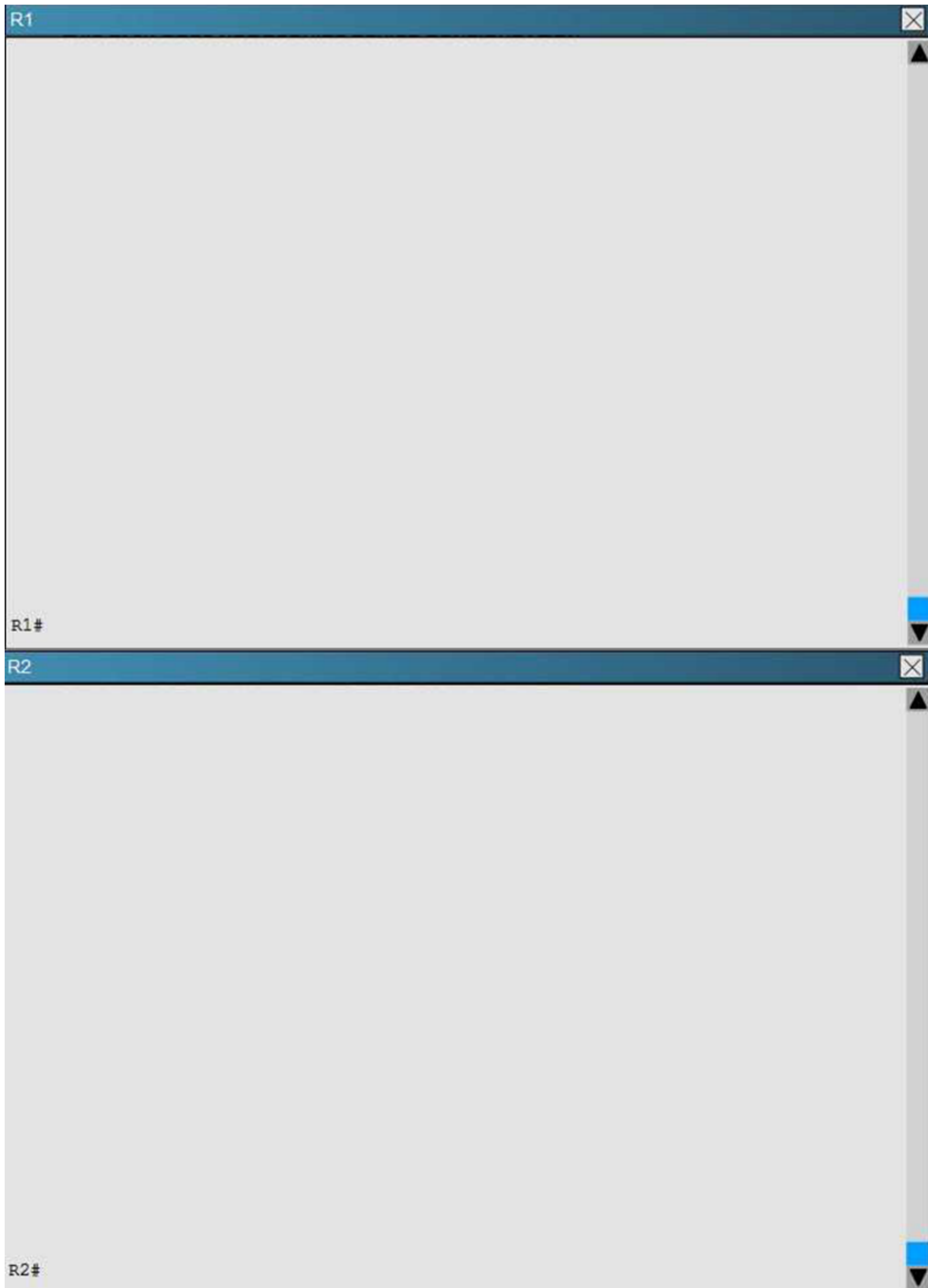
- A. isolated VLAN
- B. primary VLAN
- C. community VLAN
- D. promiscuous VLAN

**Answer:** A

#### NEW QUESTION 222

Your customer has asked you to come in and verify the operation of routers R1 and R2 which are configured to use HSRP. They have questions about how these two devices will perform in the event of a device failure.





What percentage of the outgoing traffic from the 172.16.10.0/24 subnet is being forwarded through R1?

- A. R1-0%
- B. R1-50 %, R2-50%
- C. R2-100%
- D. R1-100%

**Answer: D**

**NEW QUESTION 225**

Which statement about the MAC address sticky entries in the switch when the copy run start command is entered is true?

- A. A sticky MAC address is retained when the switch reboots.
- B. A sticky MAC address can be a unicast or multicast address.
- C. A sticky MAC address is lost when the switch reboots.
- D. A sticky MAC address ages out of the MAC address table after 600 seconds.

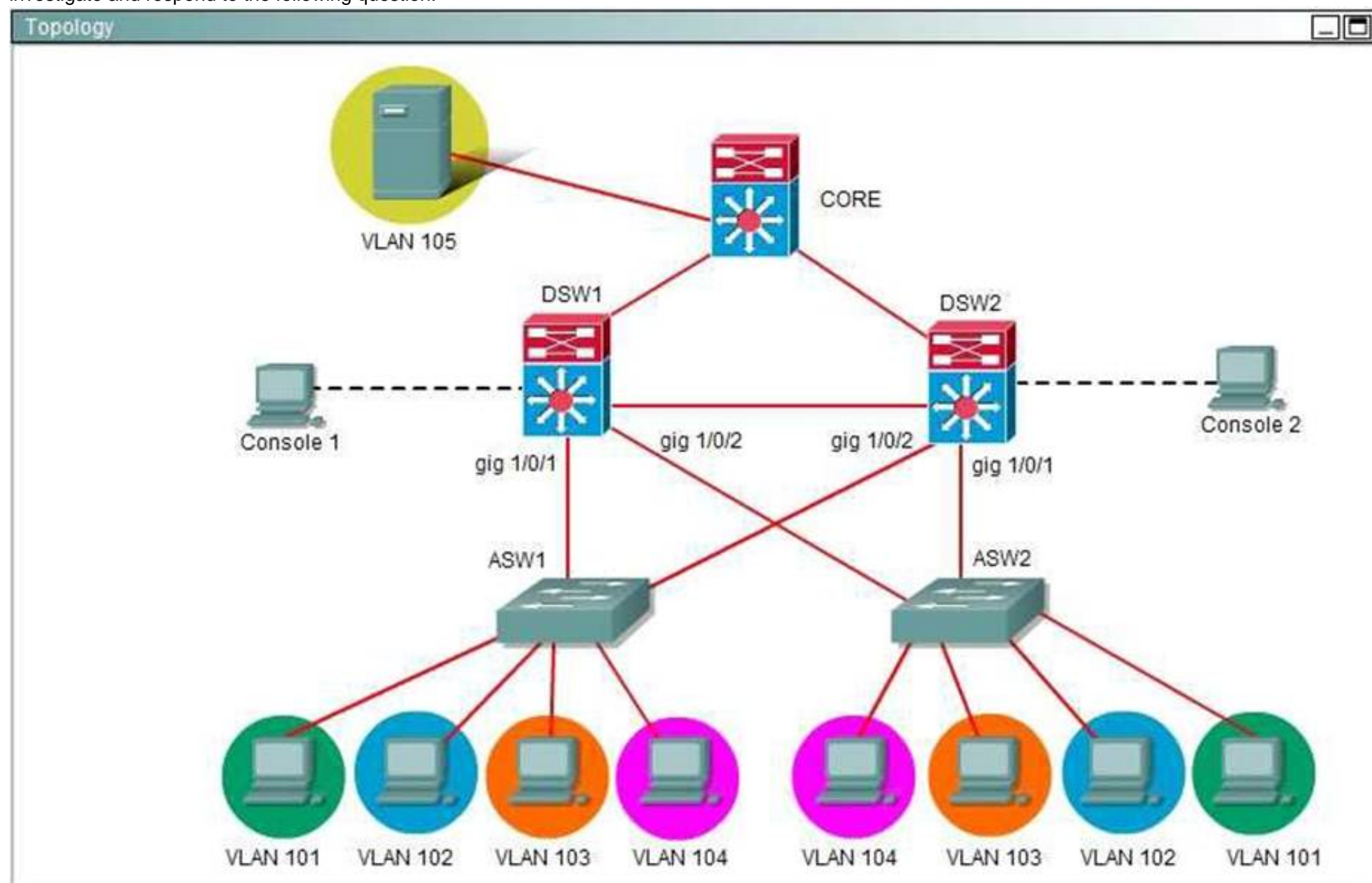
**Answer:** A

#### NEW QUESTION 230

Ferris Plastics, Inc. is a medium sized company, with an enterprise network (access, distribution and core switches) that provides LAN connectivity from user PCs to corporate servers. The distribution switches are configured to use HSRP to provide a high availability solution.

- DSW1 -primary device for VLAN 101 VLAN 102 and VLAN 105
- DSW2 - primary device for VLAN 103 and VLAN 104
- A failure of GigabitEthernet1/0/1 on primary device should cause the primary device to release its status as the primary device, unless GigabitEthernet1/0/1 on backup device has also failed.

Troubleshooting has identified several issues. Currently all interfaces are up. Using the running configurations and show commands, you have been asked to investigate and respond to the following question.



During routine maintenance, GigabitEthernet1/0/1 on DSW1 was shut down. All other interfaces were up. DSW2 became the active HSRP device for VLAN 101 as desired. However, after GigabitEthernet1/0/1 on DSW1 was reactivated, DSW1 did not become the active router for VLAN 101 as desired. What needs to be done to make the group for VLAN 101 function properly?

- A. Enable preempt in the VLAN 101 HSRP group on DSW1.
- B. Disable preempt in the VLAN 101 HSRP group on DSW2's.
- C. In the VLAN 101 HSRP group on DSW1, decrease the priority value to a value that is less than the priority value configured in the VLAN 101 HSRP group on DSW2.
- D. Decrease the decrement value in the track command for the VLAN 101 HSRP group on DSW1 to a value less than the value in the track command for the VLAN 101 HSRP group on DSW2.

**Answer:** A

#### NEW QUESTION 231

An engineer is configuring an EtherChannel between two switches using LACP. If the EtherChannel mode on switch 1 is configured to active, which two modes on switch 2 establish an operational EtherChannel? (Choose two.)

- A. active
- B. auto
- C. desirable
- D. on



E. passive

Answer: AE

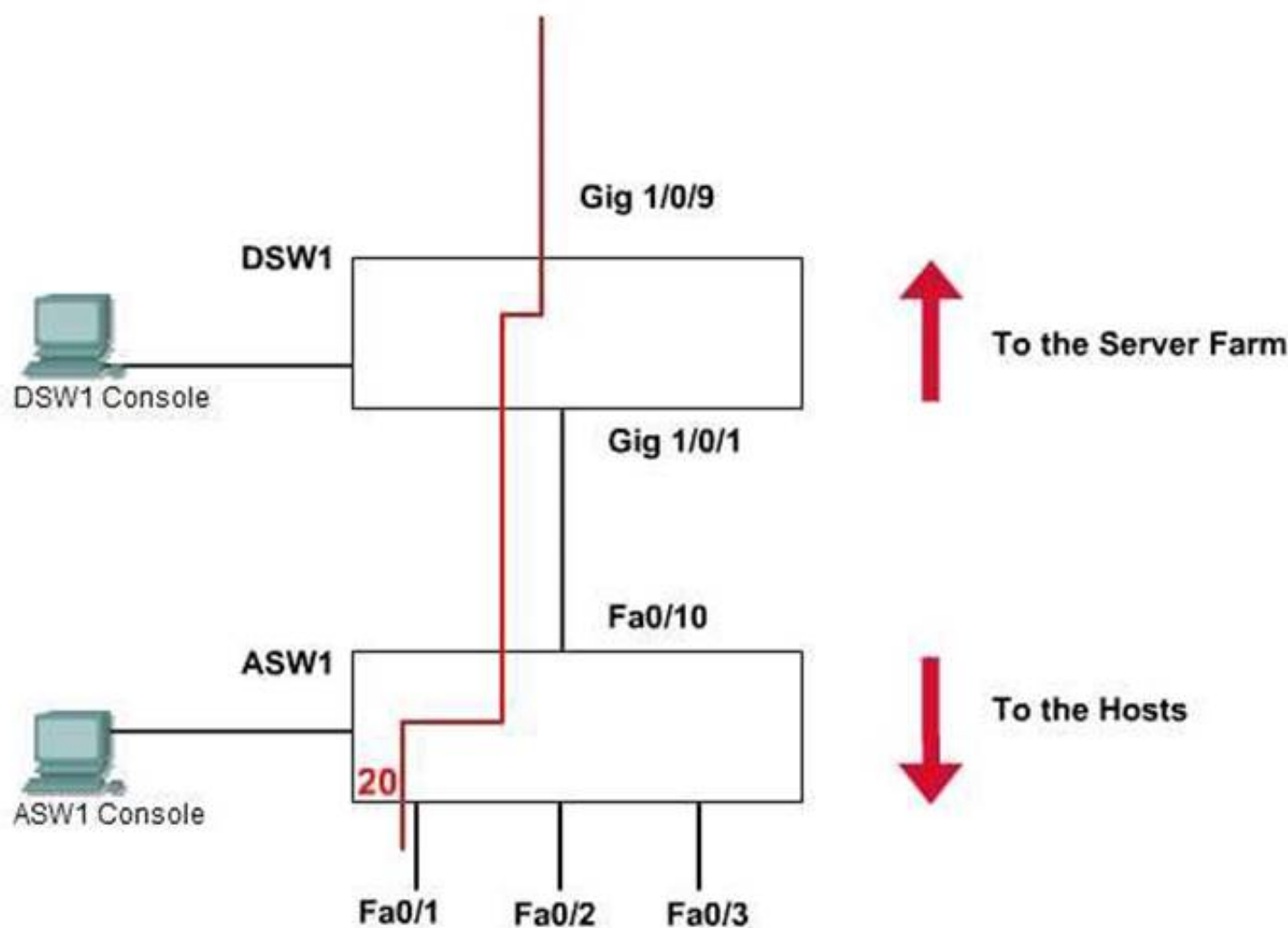
### NEW QUESTION 232

SWITCH.com is an IT company that has an existing enterprise network comprised of two layer 2 only switches; DSW1 and ASW1. The topology diagram indicates their layer 2 mapping. VLAN 20 is a new VLAN that will be used to provide the shipping personnel access to the server. Corporate policies do not allow layer 3 functionality to be enabled on the switches. For security reasons, it is necessary to restrict access to VLAN 20 in the following manner:

- Users connecting to VLAN 20 via portfO/1 on ASW1 must be authenticated before they are given access to the network. Authentication is to be done via a Radius server:

- Radius server host: 172.120.40.46
- Radius key: rad123
- Authentication should be implemented as close to the host as possible.
- Devices on VLAN 20 are restricted to the subnet of 172.120.40.0/24.
- Packets from devices in the subnet of 172.120.40.0/24 should be allowed on VLAN 20.
- Packets from devices in any other address range should be dropped on VLAN 20.
- Filtering should be implemented as close to the serverfarm as possible.

The Radius server and application servers will be installed at a future date. You have been tasked with implementing the above access control as a pre-condition to installing the servers. You must use the available IOS switch features.



Answer:

**Explanation:** The configuration:

Step1: Console to ASW1 from PC console 1 ASW1(config)#aaa new-model

ASW1(config)#radius-server host 172.120.39.46 key rad123 ASW1(config)#aaa authentication dot1x default group radius ASW1(config)#dot1x system-auth-control ASW1(config)#inter fastEthernet 0/1

ASW1(config-if)#switchport mode access ASW1(config-if)#dot1x port-control auto ASW1(config-if)#exit

ASW1#copy run start

Step2: Console to DSW1 from PC console 2 DSW1(config)#ip access-list standard 10 DSW1(config-ext-nacl)#permit 172.120.40.0 0.0.0.255

DSW1(config-ext-nacl)#exit DSW1(config)#vlan access-map PASS 10 DSW1(config-access-map)#match ip address 10 DSW1(config-access-map)#action forward DSW1(config-access-map)#exit DSW1(config)#vlan access-map PASS 20 DSW1(config-access-map)#action drop DSW1(config-access-map)#exit

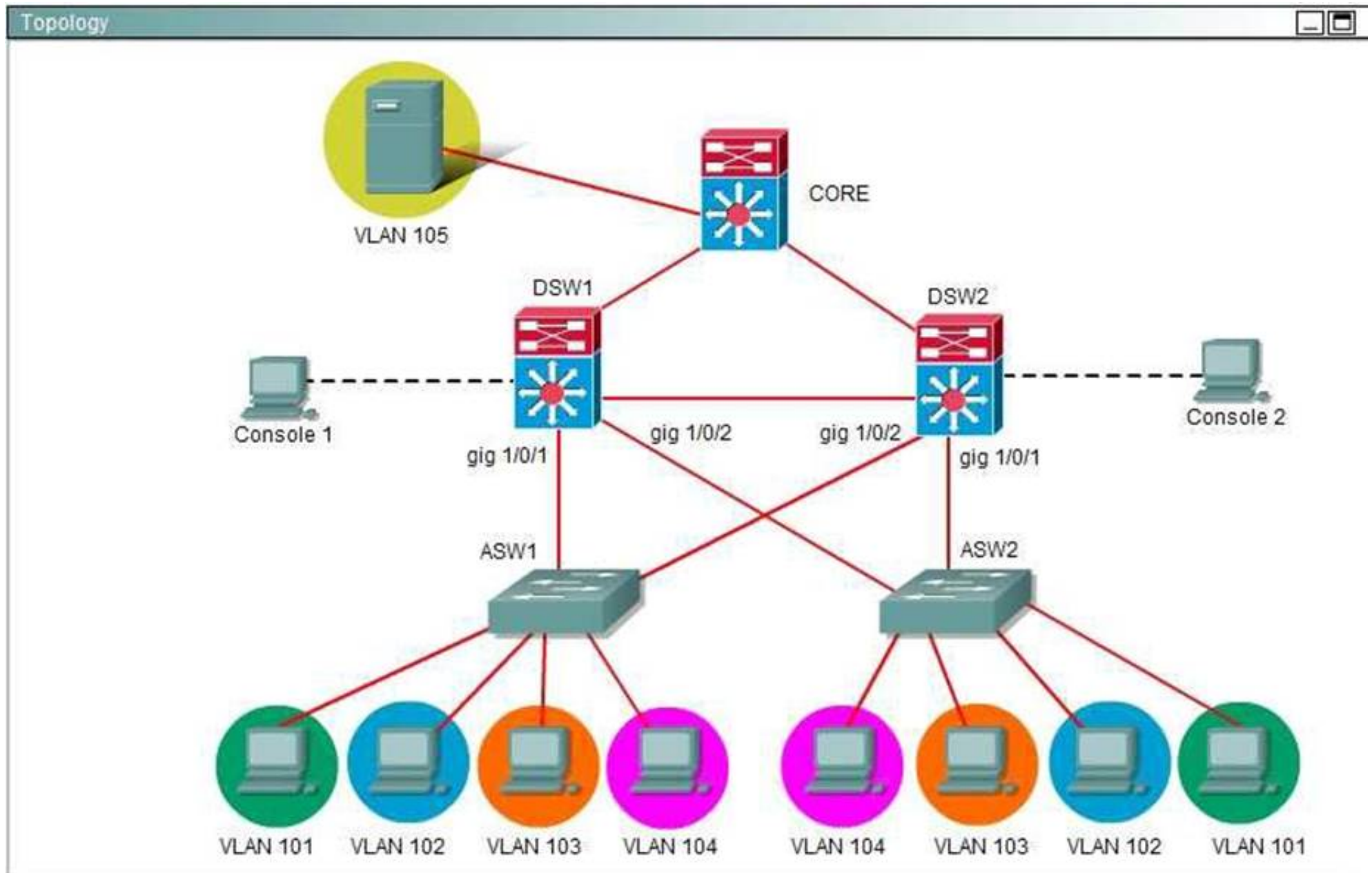
DSW1(config)#vlan filter PASS vlan-list 20 DSW1#copy run start

### NEW QUESTION 237

Ferris Plastics, Inc. is a medium sized company, with an enterprise network (access, distribution and core switches) that provides LAN connectivity from user PCs to corporate servers. The distribution switches are configured to use HSRP to provide a high availability solution.

- DSW1 -primary device for VLAN 101 VLAN 102 and VLAN 105
- DSW2 - primary device for VLAN 103 and VLAN 104
- A failure of GigabitEthernet1/0/1 on primary device should cause the primary device to release its status as the primary device, unless GigabitEthernet1/0/1 on backup device has also failed.

Troubleshooting has identified several issues. Currently all interfaces are up. Using the running configurations and show commands, you have been asked to investigate and respond to the following question.



All interfaces are active. DSW2 has not become the active device for the VLAN 103 HSRP group. As related to the VLAN 103 HSRP group, what can be done to make the group function properly?

- A. On DSW1, disable preempt.
- B. On DSW1, decrease the priority value to a value less than 190 and greater than 150.
- C. On DSW2, increase the priority value to a value greater 200 and less than 250.
- D. On DSW2, increase the decrement value in the track command to a value greater than 10 and less than 50.

**Answer: C**

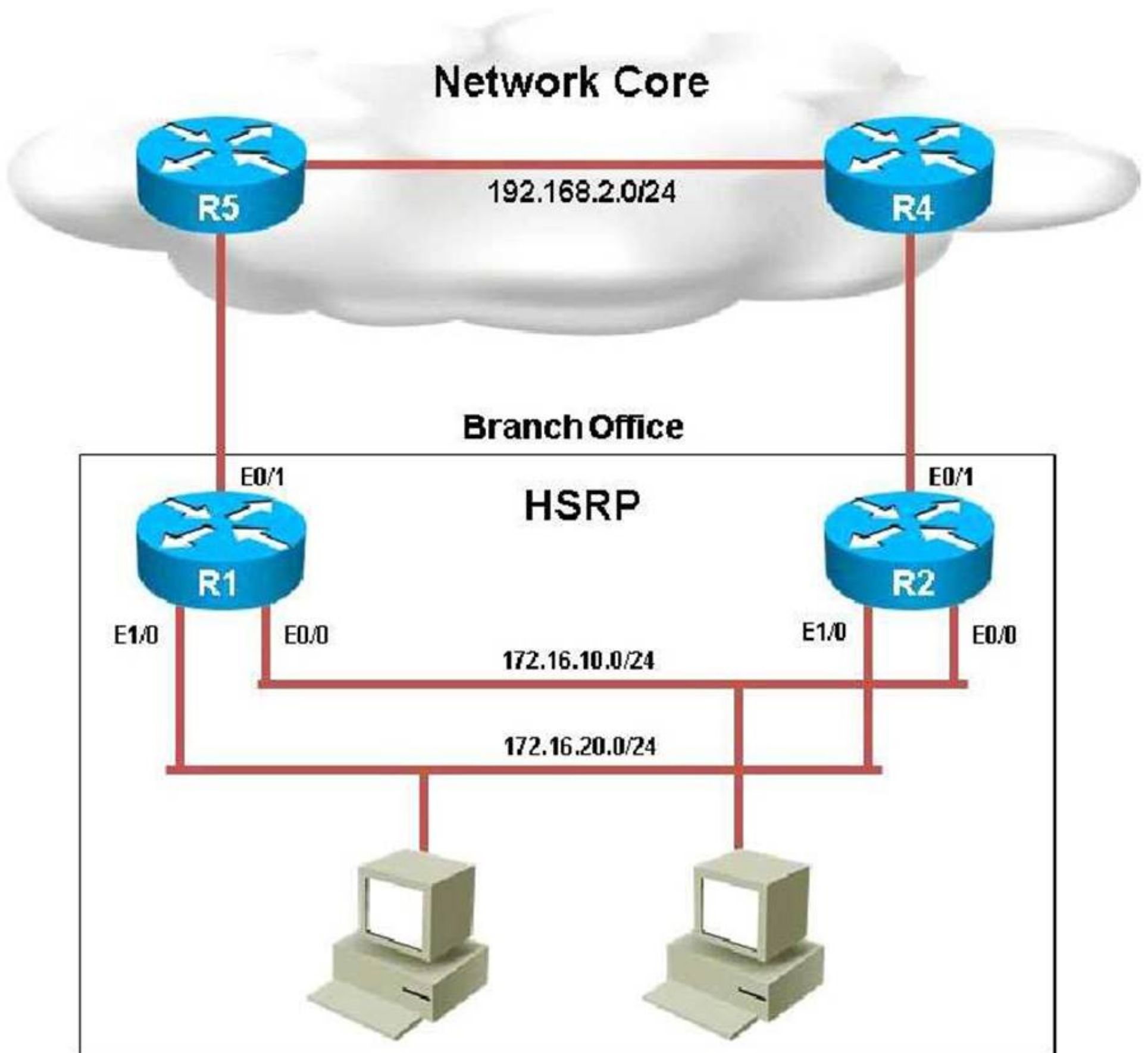
**Explanation:** The reason DSW2 has not become the active switch for Vlan103 is because the priority value of DSW1 is higher than that of DSW2. In order to make DSW2 become the active switch, we need to increase DSW2's priority (to higher than 200) or decrease DSW1's priority (to lower than 190) -> B and C are correct.

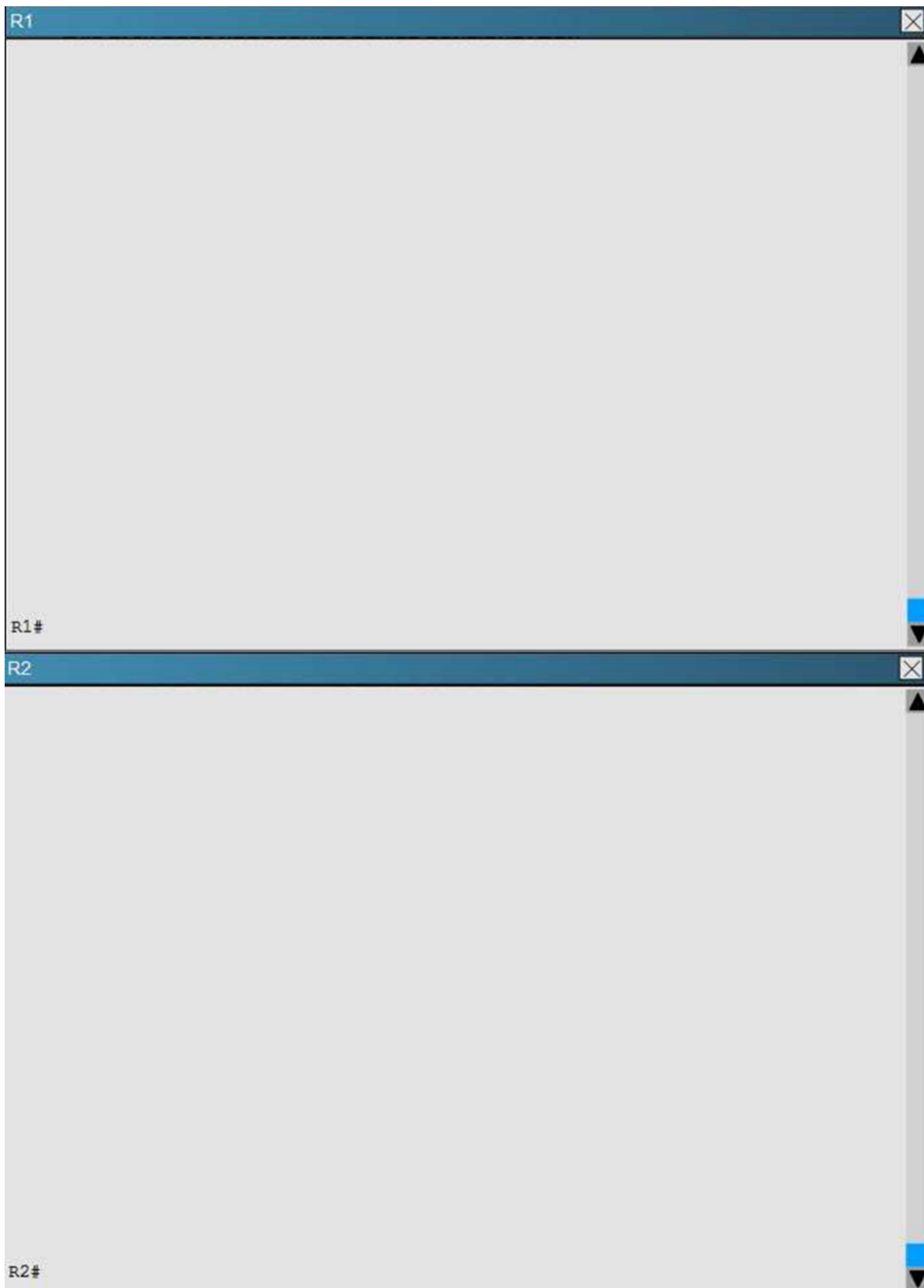
But there is another requirement from this question that "A failure on gig1/0/1 on primary device should cause the primary device to release its status as the primary device, unless GigabitEthernet 1/0/1 on backup device has also failed". This requirement makes answer B incorrect. For example, we choose to decrease the priority value on DSW1 to 160 (according to answer B) then DSW2 will become active switch (that is good). When Gi1/0/1 on DSW2 goes down, the priority of DSW2 will be  $190 - 50 = 140 < 160$  -> DSW1 will become new active switch (it is good, too). But when Gi1/0/1 on DSW1 also goes down, the priority of DSW1 will be 160

$- 10 = 150$  and it is still greater than 140 of DSW2 -> DSW2 cannot retake the active role as the requirement of this question.

#### NEW QUESTION 239

Your customer has asked you to come in and verify the operation of routers R1 and R2 which are configured to use HSRP. They have questions about how these two devices will perform in the event of a device failure.





Refer to the exhibit. If router R1 interface Ethernet0/0 goes down and recovers, which of the statement regarding HSRP priority is true?

- A. The interface will have the priority decremented by 40 for HSRP group 1.
- B. The interface will have the priority decremented by 60 for HSRP group 1
- C. The interface will have its current priority incremented by 40 for HSRP group 1
- D. The interface will have its current priority incremented by 60 for HSRP group 1
- E. The interface will default to the a priority of 100 for HSRP group 1

**Answer: C**



#### NEW QUESTION 243

Which type of information does the DHCP snooping binding database contain?

- A. untrusted hosts with leased IP addresses
- B. trusted hosts with leased IP addresses
- C. untrusted hosts with available IP addresses
- D. trusted hosts with available IP addresses

Answer: A

#### NEW QUESTION 245

When a Layer 2 EtherChannel is configured, which statement about placement of the IP address is true?

- A. The IP address is placed on the highest numbered member port.
- B. The IP address is placed on the port-channel logical interface.
- C. The IP address is placed on the lowest numbered member port.
- D. The IP address is assigned via DHCP only.

Answer: B

#### NEW QUESTION 248

Which command correctly configures standby tracking for group 1 using the default decrement priority value?

- A. standby 1 track 100
- B. standby 1 track 100 decrement 1
- C. standby 1 track 100 decrement 5
- D. standby 1 track 100 decrement 20

Answer: A

#### NEW QUESTION 251

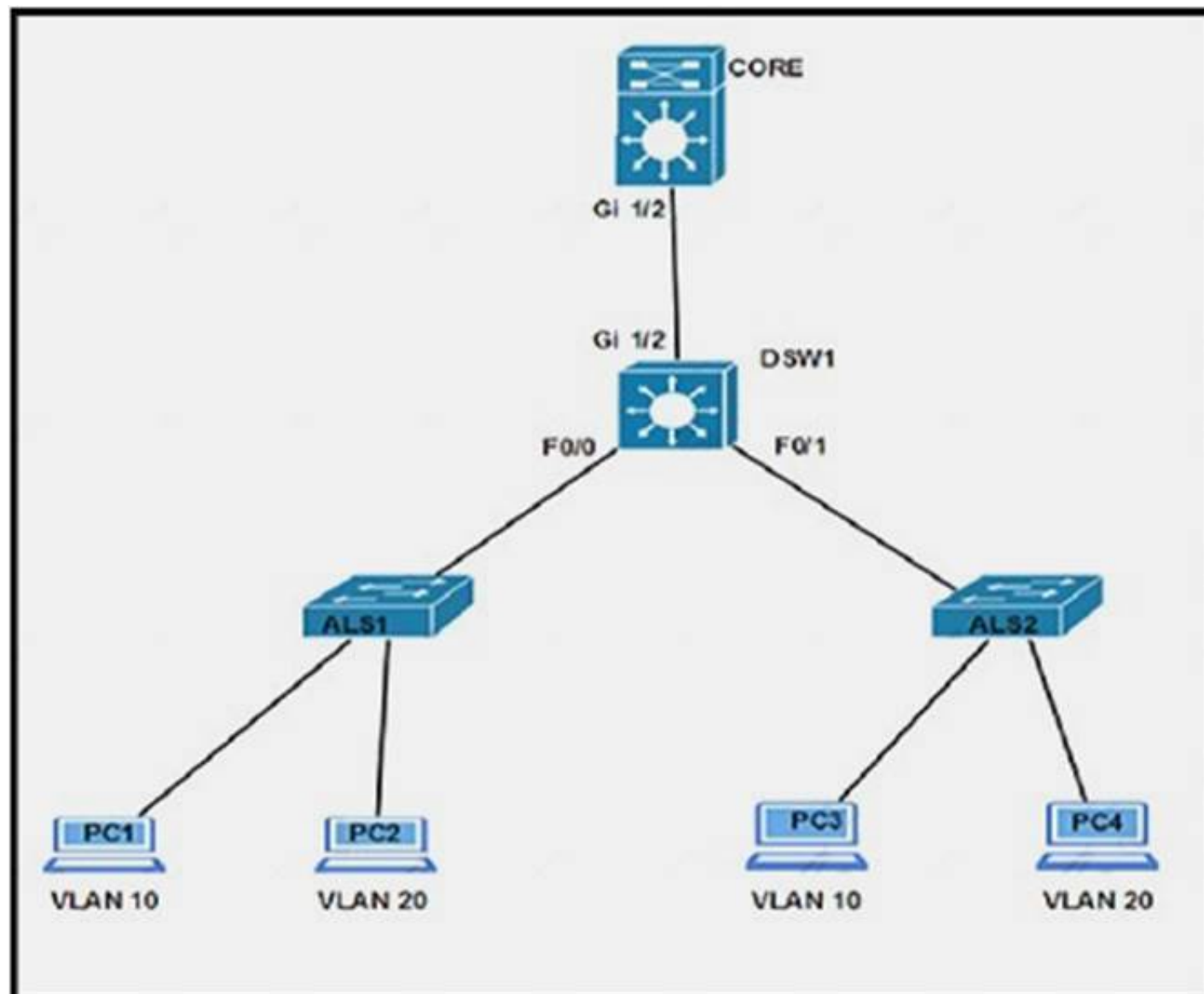
Which feature describes MAC addresses that are dynamically learned or manually configured, stored in the address table, and added to the running configuration?

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

Answer: A

#### NEW QUESTION 253

Refer to the exhibit.



Which configuration ensures that the Cisco Discovery Protocol packet update frequency sent from DSW1 to ALS1 is half of the default value?

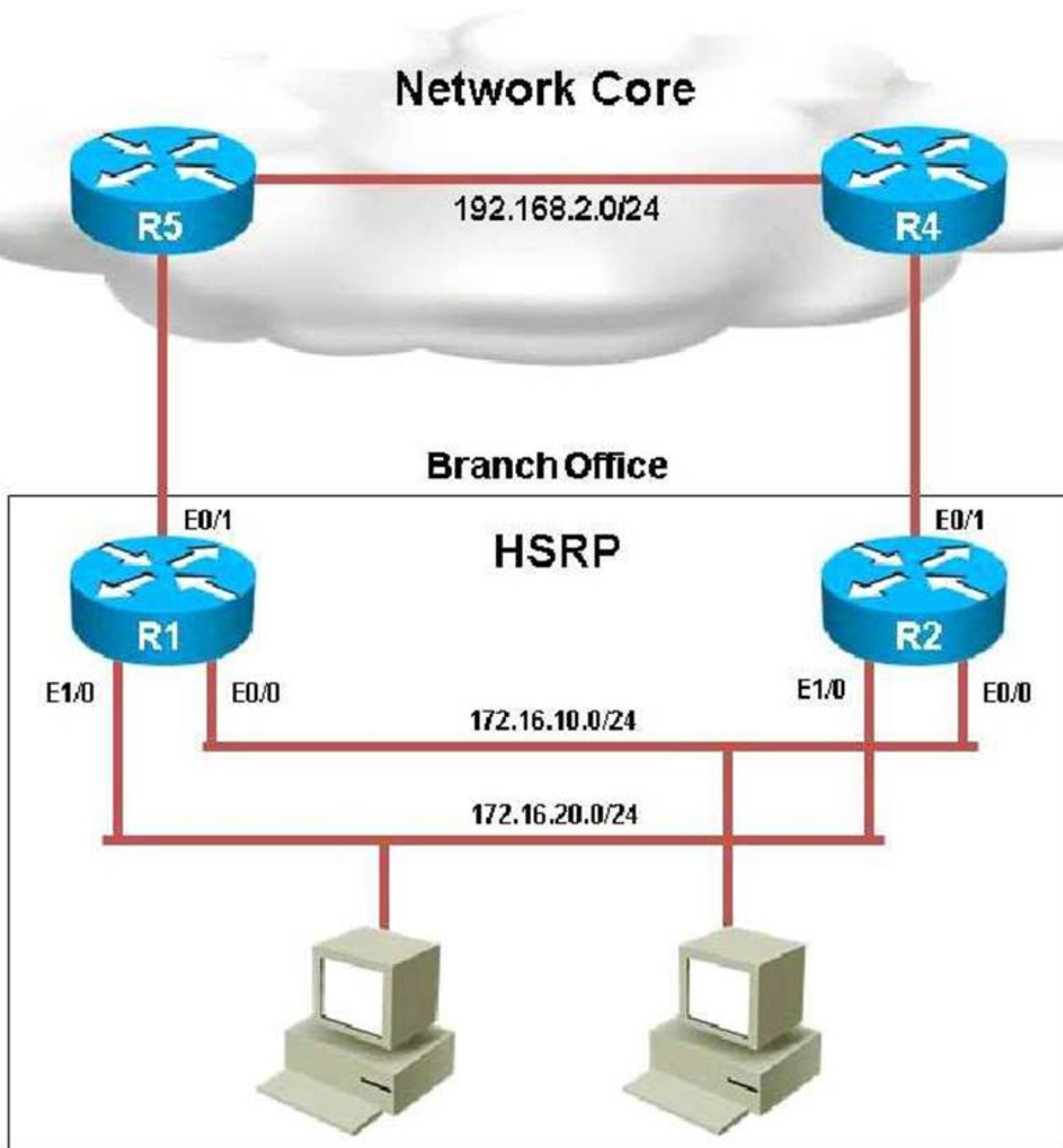
- A. DSW1(config)#cdp timer 90

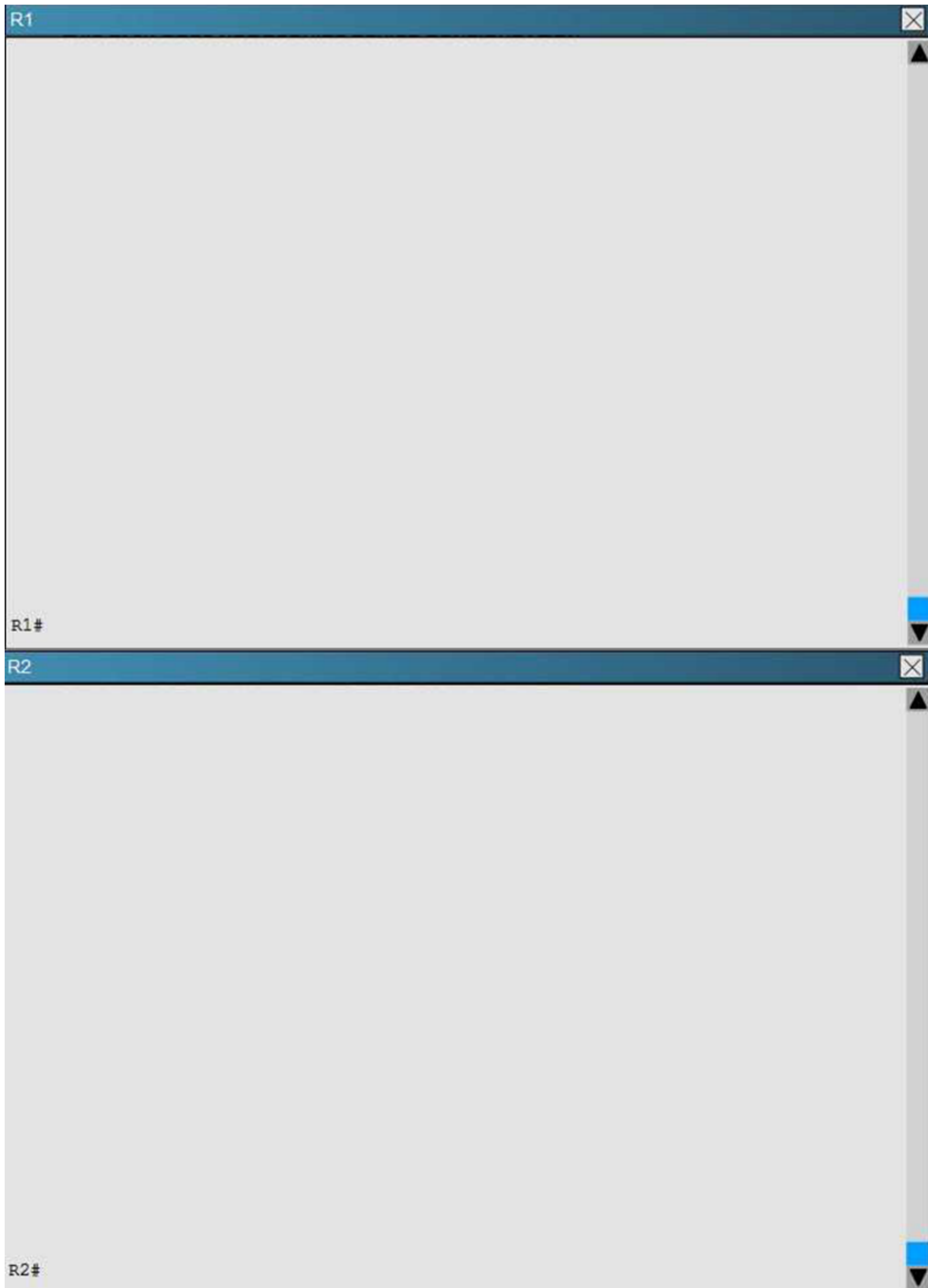
- B. DSW1(config-if)#cdp holdtime 60
- C. DSW1(config)#cdp timer 30
- D. DSW1(config)#cdp holdtime 90
- E. DSW1(config-if)#cdp holdtime 30
- F. DSW1(config-if)#cdp timer 60

Answer: C

#### NEW QUESTION 255

Your customer has asked you to come in and verify the operation of routers R1 and R2 which are configured to use HSRP. They have questions about how these two devices will perform in the event of a device failure.





What is the virtual mac-address of HSRP group 1?

- A. 0000.0c07.ac02
- B. 4000.0000.0010
- C. 0000.0c07.ac01
- D. 4000.0000.ac01
- E. 4000.0000.ac02
- F. 0000.0c07.0010

**Answer:** B

#### NEW QUESTION 260

A server with a statically assigned IP address is attached to a switch that is provisioned for DHCP snooping. For more protection against malicious attacks, the network team is considering enabling dynamic ARP inspection alongside DHCP snooping. Which solution ensures that the server maintains network reachability in the future?

- A. Disable DHCP snooping information option.
- B. Configure a static DHCP snooping binding entry on the switch.
- C. Trust the interface that is connected to the server with the ip dhcp snooping trust command.
- D. Verify the source MAC address of all untrusted interfaces with ip dhcp snooping verify mac-address command.

**Answer:** B

#### NEW QUESTION 265

While troubleshooting a network outage, a network engineer discovered an unusually high level of broadcast traffic coming from one of the switch interfaces. Which option decreases consumption of bandwidth used by broadcast traffic?

- A. storm control
- B. SDM routing
- C. Cisco IOS parser
- D. integrated routing and bridging
- E. Dynamic ARP Inspection

**Answer:** A

#### NEW QUESTION 269

A network engineer wants to ensure Layer 2 isolation of customer traffic using a private VLAN. Which configuration must be made before the private VLAN is configured?

- A. Disable VTP and manually assign VLANs.
- B. Ensure all switches are configured as VTP server mode.
- C. Configure VTP Transparent Mode.
- D. Enable VTP version 3.

**Answer:** C

#### NEW QUESTION 270

Which private VLAN access port belongs to the primary VLAN and can communicate with all interfaces, including the community and isolated host ports?

- A. promiscuous port
- B. isolated port
- C. community port
- D. trunk port

**Answer:** A

#### NEW QUESTION 272

Which gateway role is responsible for answering ARP requests for the virtual IP address in GLBP?

- A. active virtual forwarder
- B. active virtual router
- C. active virtual gateway
- D. designated router

**Answer:** C

#### NEW QUESTION 275

Which option is valid for EtherChannel load balancing?

- A. source MAC address and source IP address
- B. destination MAC address and destination IP address
- C. source MAC address and destination IP address
- D. source MAC address and destination MAC address

**Answer:** D

#### NEW QUESTION 278

What is the maximum number of virtual MAC addresses that GLBP allows per group?

- A. 2
- B. 4
- C. 6
- D. 8

**Answer:** B



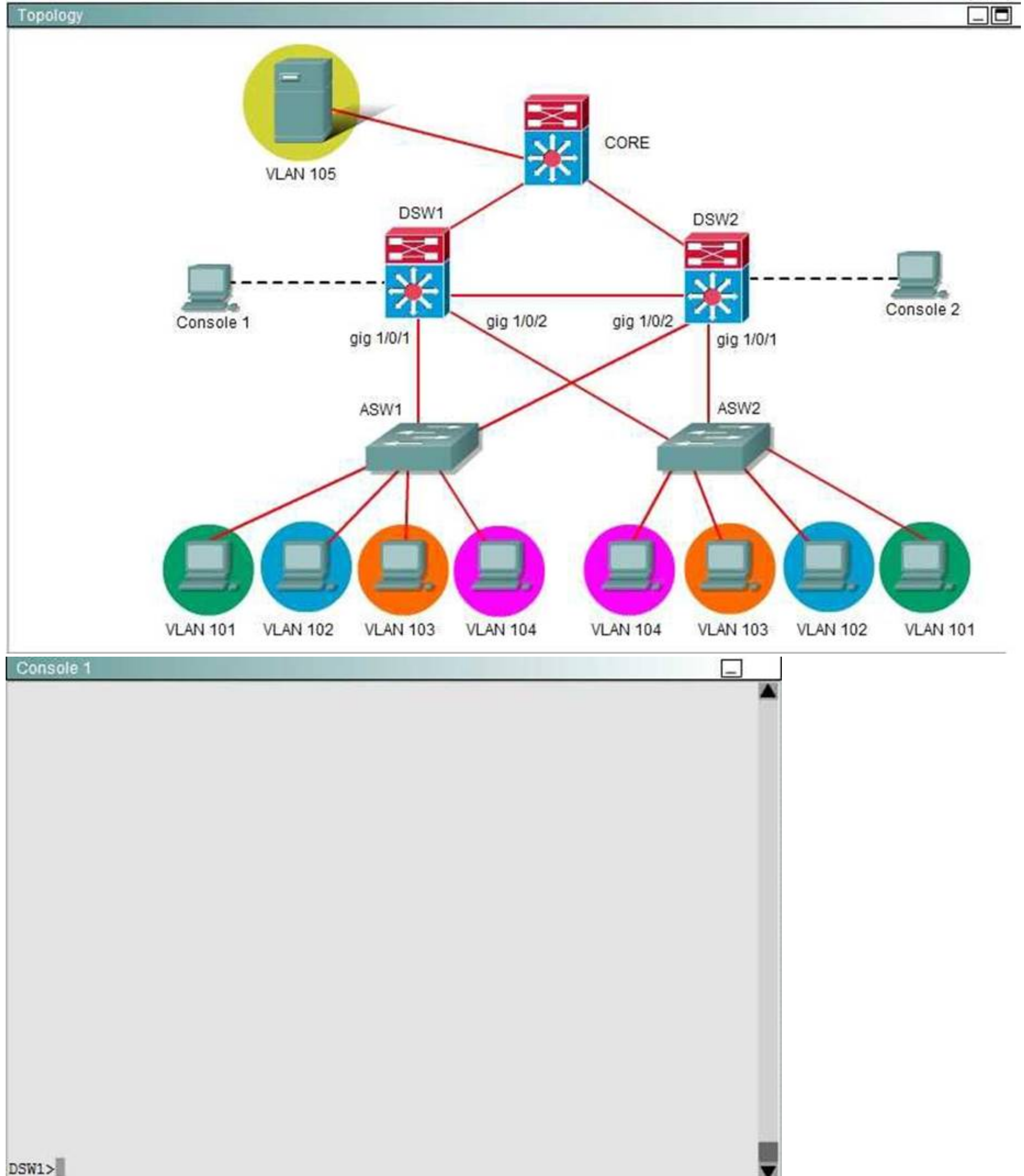
### NEW QUESTION 279

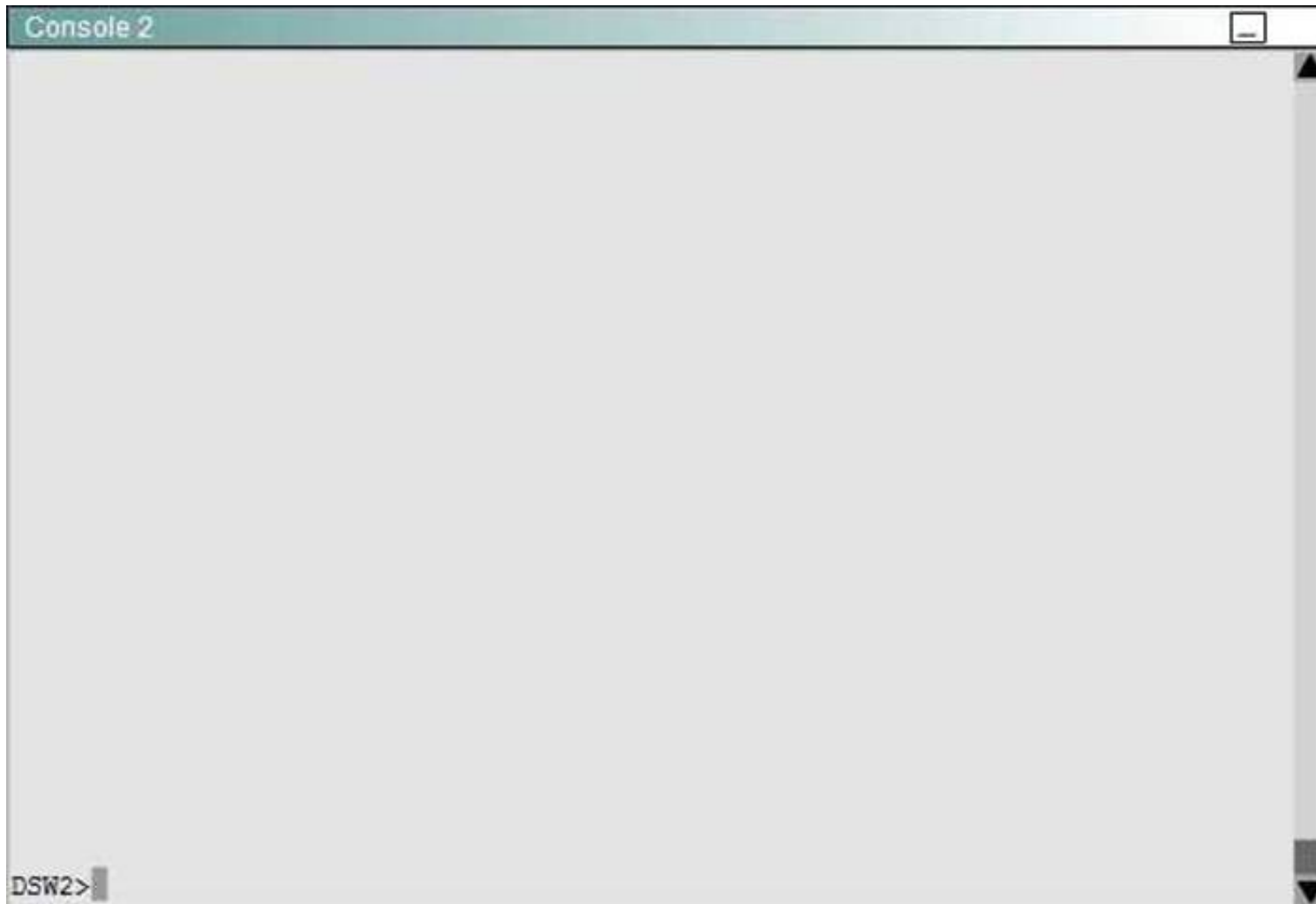
Ferris Plastics, Inc. is a medium sized company, with an enterprise network (access, distribution and core switches) that provides LAN connectivity from user PCs to corporate servers. The distribution switches are configured to use HSRP to provide a high availability solution.

- DSW1 -primary device for VLAN 101 VLAN 102 and VLAN 105
- DSW2 - primary device for VLAN 103 and VLAN 104

• A failure of GigabitEthernet1/0/1 on primary device should cause the primary device to release its status as the primary device, unless GigabitEthernet1/0/1 on backup device has also failed.

Troubleshooting has identified several issues. Currently all interfaces are up. Using the running configurations and show commands, you have been asked to investigate and respond to the following question.





During routine maintenance, it became necessary to shut down the GigabitEthernet1/0/1 interface on DSW1 and DSW2. All other interfaces were up. During this time, DSW1 became the active router for the VLAN 104HSRP group. As related to the VLAN 104HSRP group, what can to be done to make the group function properly?

- A. On DSW1, disable preempt.
- B. On DSW2 decrease the priority value to a value less than 150.
- C. On DSW1, increase the decrement value in the track command to a value greater than 6.
- D. On DSW1, decrease the decrement value in the track command to a value less than 1.

**Answer:** C

#### NEW QUESTION 283

During the implementation of a voice solution, which two required items are configured at an access layer switch that will be connected to an IP phone to provide VoIP communication? (Choose two.)

- A. allowed codecs
- B. untagged VLAN
- C. auxiliary VLAN
- D. Cisco Unified Communications Manager IP address
- E. RSTP

**Answer:** BC

#### NEW QUESTION 287

By default, what is the state of port security on a switch?

- A. disabled
- B. on
- C. off
- D. learning

**Answer:** A

#### NEW QUESTION 289

Which option is the maximum frame size for an 802.1Q frame?

- A. 64 bytes
- B. 68 bytes
- C. 1518 bytes
- D. 1522 bytes

**Answer:** D

#### NEW QUESTION 291

Which causes routers R1 and R2 to be displayed as HSRP active routers for Group 2?

- A. The HSRP group numbers do not match
- B. The HSRP group authentication is misconfigured.
- C. The HSRP Hello packets are blocked

- D. The HSRP timers do not match
- E. The HSRP group priorities do not match

**Answer:** B

#### NEW QUESTION 296

Which two actions can be configured for storm control violation?

- A. Shutdown
- B. Trap
- C. Notify admin
- D. Discard Port

**Answer:** AB

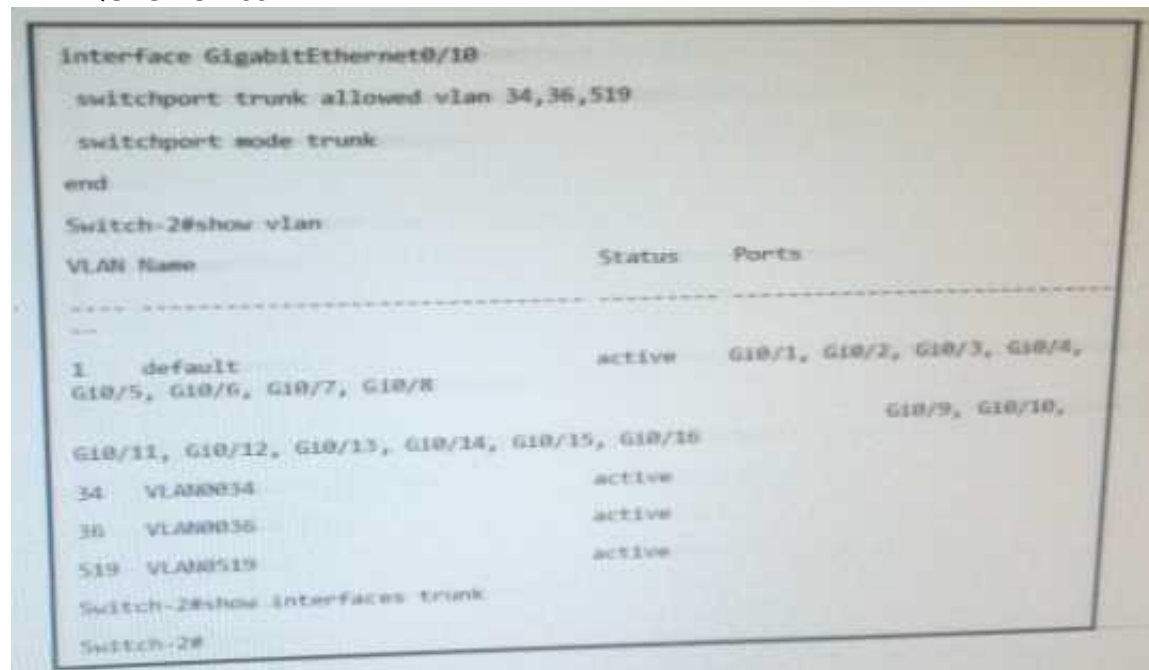
#### NEW QUESTION 299

Which statements about RSPAN are true? (Choose two.)

- A. It supports MAC address learning.
- B. RSPAN VLANs can carry RSPAN traffic only.
- C. Only one RSPAN VLAN can be configured per device.
- D. RSPAN VLANs are exempt from VTP pruning.
- E. MAC address learning is not supported.
- F. RSPAN uses GRE tunnel to transmit captured traffic.

**Answer:** BE

#### NEW QUESTION 302



Refer to the exhibit. Which statement about the interface is true?

- A. The interface is down.
- B. The other side of the interface is set as access.
- C. The switch port command is missing from the configuration
- D. The interface needs no shutdown configured.

**Answer:** A

#### NEW QUESTION 305

You have been tasked with configuring multilayer SwitchC, which has a partial configuration and has been attached to RouterC as shown in the topology diagram. You need to configure SwitchC so that Hosts H1 and H2 can successfully ping the server S1. Also SwitchC needs to be able to ping server S1.

Due to administrative restrictions and requirements you should not add/delete vlans or create trunk links. Company policies forbid the use of static or default routing. All routes must be learned via EIGRP 65010 routing protocol.

You do not have access to RouterC. RouterC is correctly configured. No trunking has been configured on RouterC.

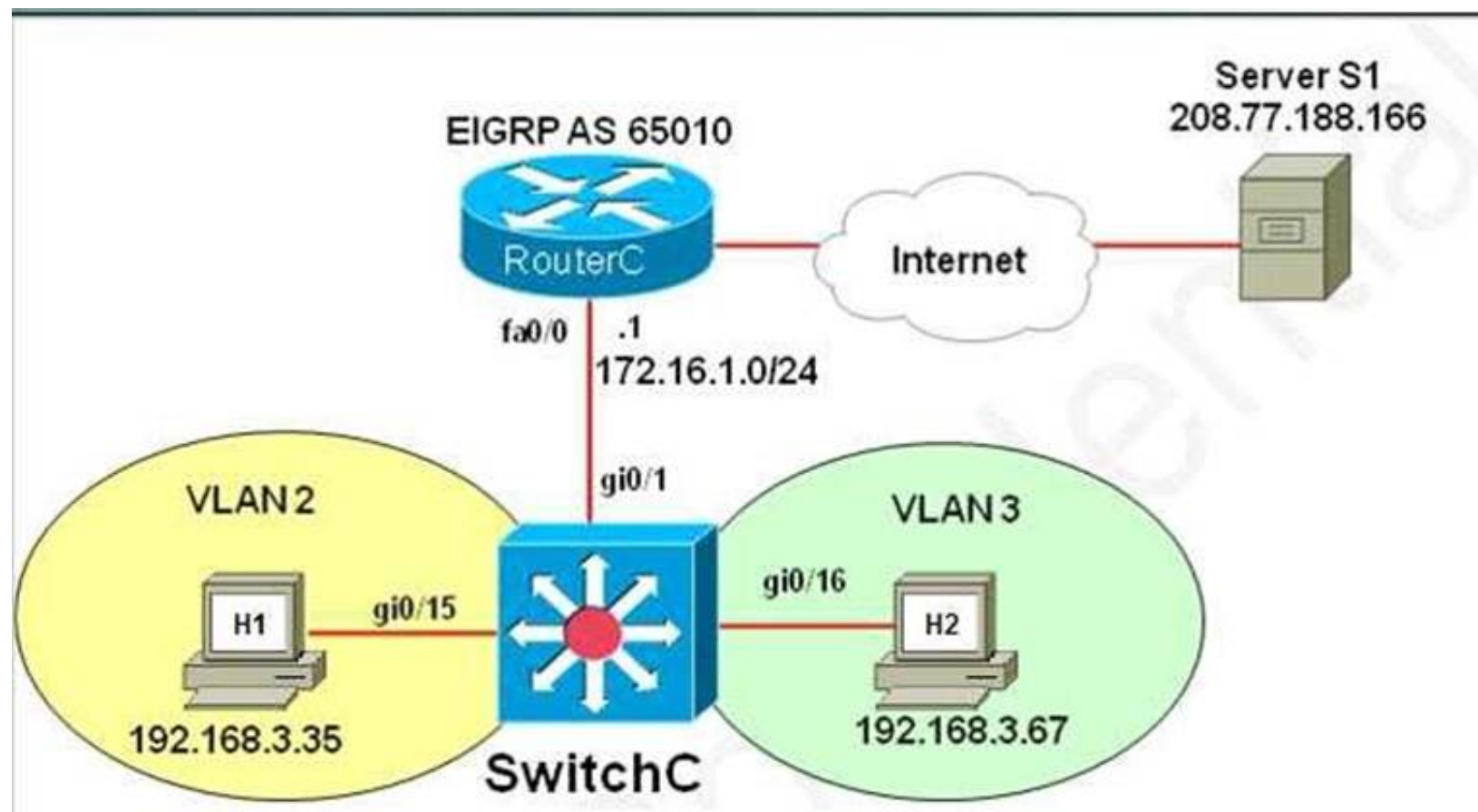
Routed interfaces should use the lowest host on a subnet when possible. The following subnets are available to implement this solution:

- 10.10.10.0/24
- 190.200.250.32/27
- 190.200.250.64/27

Hosts H1 and H2 are configured with the correct IP address and default gateway. SwitchC uses Cisco as the enable password.

Routing must only be enabled for the specific subnets shown in the diagram.

Note: Due to administrative restrictions and requirements you should not add or delete VLANs, changes VLAN port assignments or create trunks. Company policies forbid the use of static or default routing. All routes must be learned via the EIGRP routing protocol.





```
SwitchC
%LINK-3-UPDOWN: Interface GigabitEthernet0/22, changed state to administratively
down
%LINK-3-UPDOWN: Interface GigabitEthernet0/23, changed state to administratively
down
%LINK-3-UPDOWN: Interface GigabitEthernet0/24, changed state to administratively
down
%LINK-3-UPDOWN: Interface GigabitEthernet0/25, changed state to administratively
down
%LINK-3-UPDOWN: Interface GigabitEthernet0/26, changed state to administratively
down
%LINK-3-UPDOWN: Interface GigabitEthernet0/27, changed state to administratively
down
%LINK-3-UPDOWN: Interface GigabitEthernet0/28, changed state to administratively
down
%LINK-3-UPDOWN: Interface GigabitEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed stat
e to up
%LINK-3-UPDOWN: Interface GigabitEthernet0/16, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/16, changed sta
te to up
%LINK-3-UPDOWN: Interface GigabitEthernet0/15, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/15, changed sta
te to up
Press RETURN to get started!
SwitchC>
```

**Answer:**

**Explanation:** There are two ways to configure interVLAN routing in this case:

+ Use RouterC as a “router on a stick” and SwitchC as a pure Layer2 switch. Trunking must be established between RouterC and SwitchC.+ Only use SwitchC for interVLAN routing without using RouterC, SwitchC should be configured as a Layer 3 switch (which supports ip routing function as a router). No trunking requires. The question clearly states “No trunking has been configured on RouterC” so RouterC does not contribute to interVLAN routing of hosts H1 & H2 -> SwitchC must be configured as a Layer 3 switch with SVIs for interVLAN routing.

We should check the default gateways on H1 & H2. Click on H1 and H2 and type the “ipconfig” command to get their default gateways.

C:\>ipconfig

We will get the default gateways as follows: Host1:+ Default gateway: 190.200.250.33 Host2:+ Default gateway: 190.200.250.65

Now we have enough information to configure SwitchC (notice the EIGRP AS in this case is 650)

Note: VLAN2 and VLAN3 were created and gi0/10, gi0/11 interfaces were configured as access ports so we don’t need to configure them in this sim.

SwitchC# configure terminalSwitchC(config)#

int gi0/S1witchC(config-if)#no switchport

-> without using

this command, the simulator does not let you assign IP address on Gi0/1 interface.SwitchC(config-if)# ip address 10.10.10.2 255.255.255.0

->RouterC has used IP 10.10.10.1 so this is the lowest usable IP

address.SwitchC(config-if)# no shutdownSwitchC(config-if)#

exitSwitchC(config)# int vlan 2

SwitchC(config-if)#

ip address 190.200.250.33 255.255.255.22S4witchC(config-if)# no shutdown

SwitchC(config-if)#

int vlanS3witchC(config-if)#

ip address 190.200.250.65 255.255.255.224

SwitchC(config-if)# no shutdownSwitchC(config-if)#exitSwitchC(config)#

ip routing (Notice: MLS will not

work without this command)SwitchC(config)#

router eigrp 65S0witchC(config-router)# network 10.10.10.0

1.1.1.255 SwitchC(config-router)# network 190.200.250.32 0.0.0.31SwitchC(config-router)# network 190.200.250.64 0.0.0.31

NOTE: THE ROUTER IS CORRECTLY CONFIGURED, so you will not miss within it in the exam , also don’t modify/delete any port just do the above configuration. Also some reports said the “no auto-summary” command can’t be used in the simulator, in fact it is not necessary because the network 190.200.0.0/16 is not used anywhere else in this topology.

In order to complete the lab, you should expect the ping to SERVER to succeed from the MLS , and from the PCs as well.

Also make sure you use the correct EIGRP AS number (in the configuration above it is 650 but it will change when you take the exam) but we are not allowed to access RouterC so the only way to find out the EIGRP AS is to look at the exhibit above. If you use wrong AS number, no neighbor relationship is formed between RouterC and SwitchC.

In fact, we are pretty sure instead of using two commands “network 190.200.250.32 0.0.0.31 and “network 190.200.250.64 0.0.0.31 we can use one simple command “network 190.200.0.0 because it is the nature of distance vector routing protocol like EIGRP: only major networks need to be advertised; even without “no auto-summary” command the network still works correctly. But in the exam the sim is just a flash based simulator so we should use two above commands, just for sure. But after finishing the configuration, we can use “show run” command to verify, only the summarized network 190.200.0.0 is shown.

## NEW QUESTION 310

Which two statements about Stack Wise are true? (Choose two)

- A. It monitors multiple switches from a central console
- B. It enables multiple switch ports to share a single master configuration
- C. It uses a single IP address to communicate with the network

- D. It groups multiple switch ports as a single Ether Channel
- E. It allows multiple switches to operate as a single switch

**Answer:** CE

#### NEW QUESTION 313

When using EtherChannel misconfiguration guard, which technology is used to prevent this type of misconfiguration from affecting the network?

- A. STP
- B. port security
- C. LACP
- D. PAgP

**Answer:** A

#### NEW QUESTION 317

Refer to the exhibit.

\*\*\*\*Exhibit is missing\*\*\*\*

An engineer is configuring an etherchannel between two switches, he notices the error message on Switch 2 (error message channel-misconfiguring error), based on the output what is the problem:

- A. the etherchannel on the switch 1 using incorrect member port
- B. the etherchannel interface of switch 1 is not configured
- C. the etherchannel protocol on switch 1 is not correct
- D. the etherchannel interface of switch 2 is not configured

**Answer:** C

#### NEW QUESTION 322

Behavior of an access port when a tagged packet is received other than the access VLAN value.

- A. Tag is removed and packet is forwarded of the VLAN mentioned in the tag.
- B. tag is removed and packet is forwarded on the VLAN of the access port
- C. Not Available
- D. packet is dropped

**Answer:** D

#### NEW QUESTION 323

Which two configurations can you apply to a port so that it tags traffic with VLAN 915? (Choose two.)

- A. interface GigabitEthernet0/0 switchport mode access switchport access vlan 915
- B. interface GigabitEthernet0/0 switchport mode trunkswitchport trunk encapsulation dot1q switchport trunk allowed vlan 915
- C. interface GigabitEthernet0/0 switchport mode access switchport voice vlan 915 switchport access vlan 915
- D. interface GigabitEthernet0/0.915 encapsulation dot1q 915
- E. interface GigabitEthernet0/0.915 switchport mode access switchport access vlan 915

**Answer:** BD

#### NEW QUESTION 328

What is cisco recommendation for RSPAN best practice?

- A. you should configure remote vlan first
- B. use different vlan for multiple/different switches
- C. use different portchannel

**Answer:** A

#### NEW QUESTION 333

Which IOS configuration command is required to configure a VLAN as a private VLAN?

- A. switch(config-vlan)# private-vlan common
- B. switch(config-vlan)# private-vlan private
- C. switch(config-vlan)# private-vlan primary
- D. switch(config-vlan)# private-vlan transparent

**Answer:** C

#### NEW QUESTION 335

What happens if you apply this command "vlan dot1q tag native"?

- A. packet will be dropped
- B. packet go to defaultl vlan
- C. packet go to native vlan



Answer: A

#### NEW QUESTION 339

Which two options are advantages of deploying VTPv3? (Choose two)

- A. It stores the VTP domain password securely as a SHA-1 hash
- B. It adds on FCS field at the end of each VTP frame for consistency checking
- C. It supports the propagation of private VLANs.
- D. It supports the use of AES to encrypt VTP messaging
- E. It can be configured to allow only one VTP server to make changes to the VTP domain

Answer: CE

#### NEW QUESTION 340

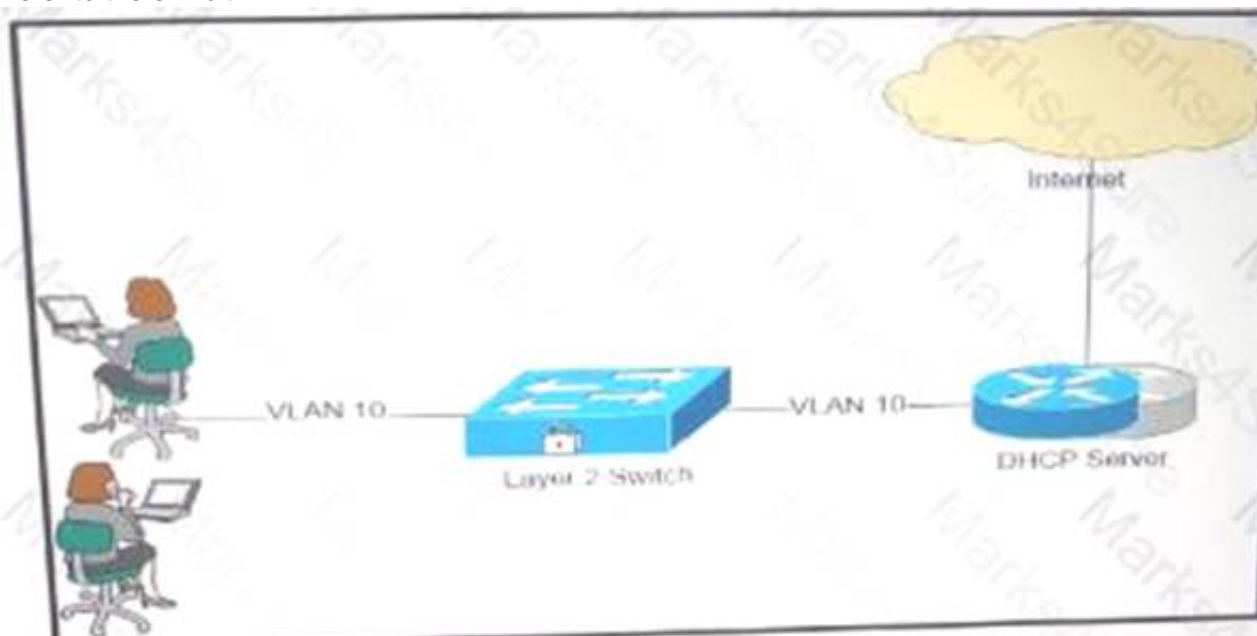
What happens spoofed packet or something like untrusted packet is detected? (Choose three)

- A. log
- B. deletes
- C. intercepts
- D. accepts
- E. discards

Answer: ACE

#### NEW QUESTION 342

Refer to the exhibit.



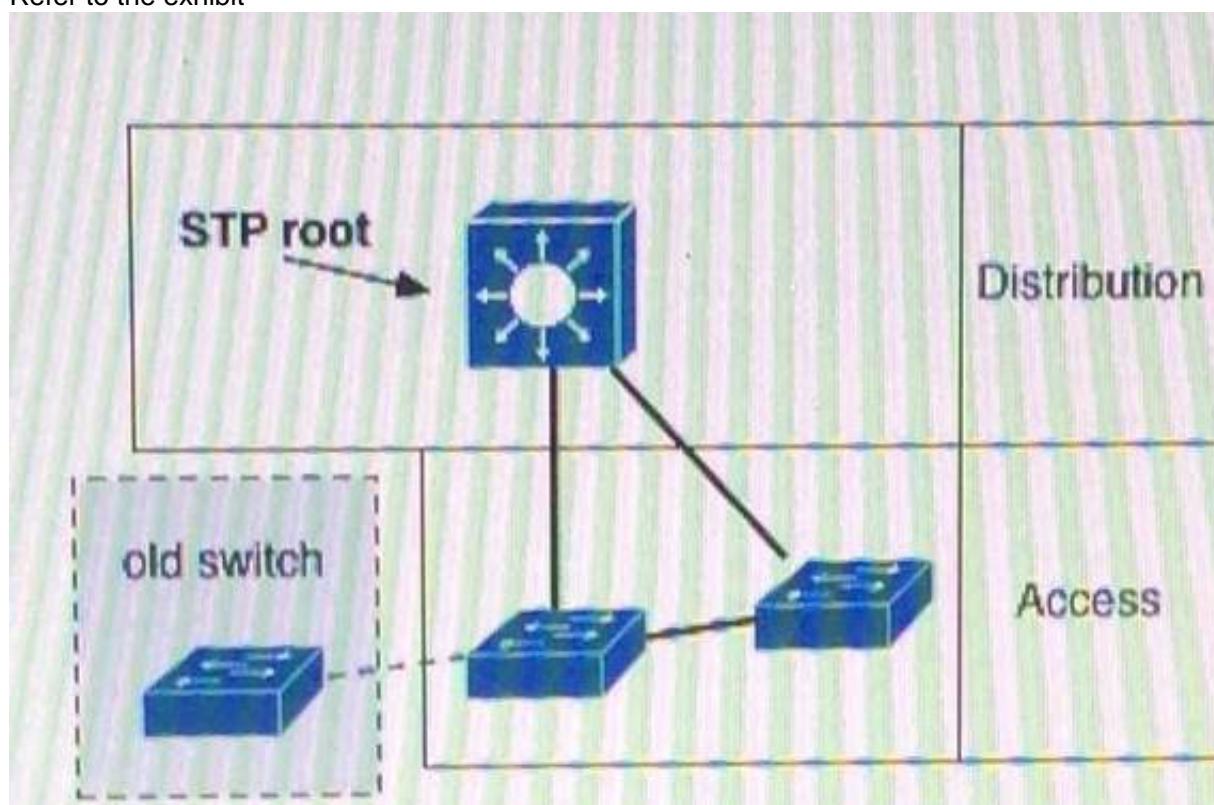
What is default behavior expected upon running the ip dhcp snooping vlan 10 command?

- A. All of the switch ports in VLAN 10 are un trusted.
- B. All of the switch ports in VLAN 10 are trusted.
- C. The user can obtain an IP address via DHCP.
- D. All of the ports that are not placed in VLAN 10 are un trusted.

Answer: A

#### NEW QUESTION 343

Refer to the exhibit



A network engineer deployed an older switch with the same spanning-tree priority as the existing root, which caused a network outage. In which two locations should the Spanning Tree protocol root guard feature be implemented? (Choose two.)

- A. On the designated root switch downlinks to the access layer.
- B. On all of non-root switch facing ports of the access layer
- C. On the access layers root facing ports
- D. On Layer 3 boundaries in the distribution layer
- E. Globally on all network switches.

**Answer:** AB

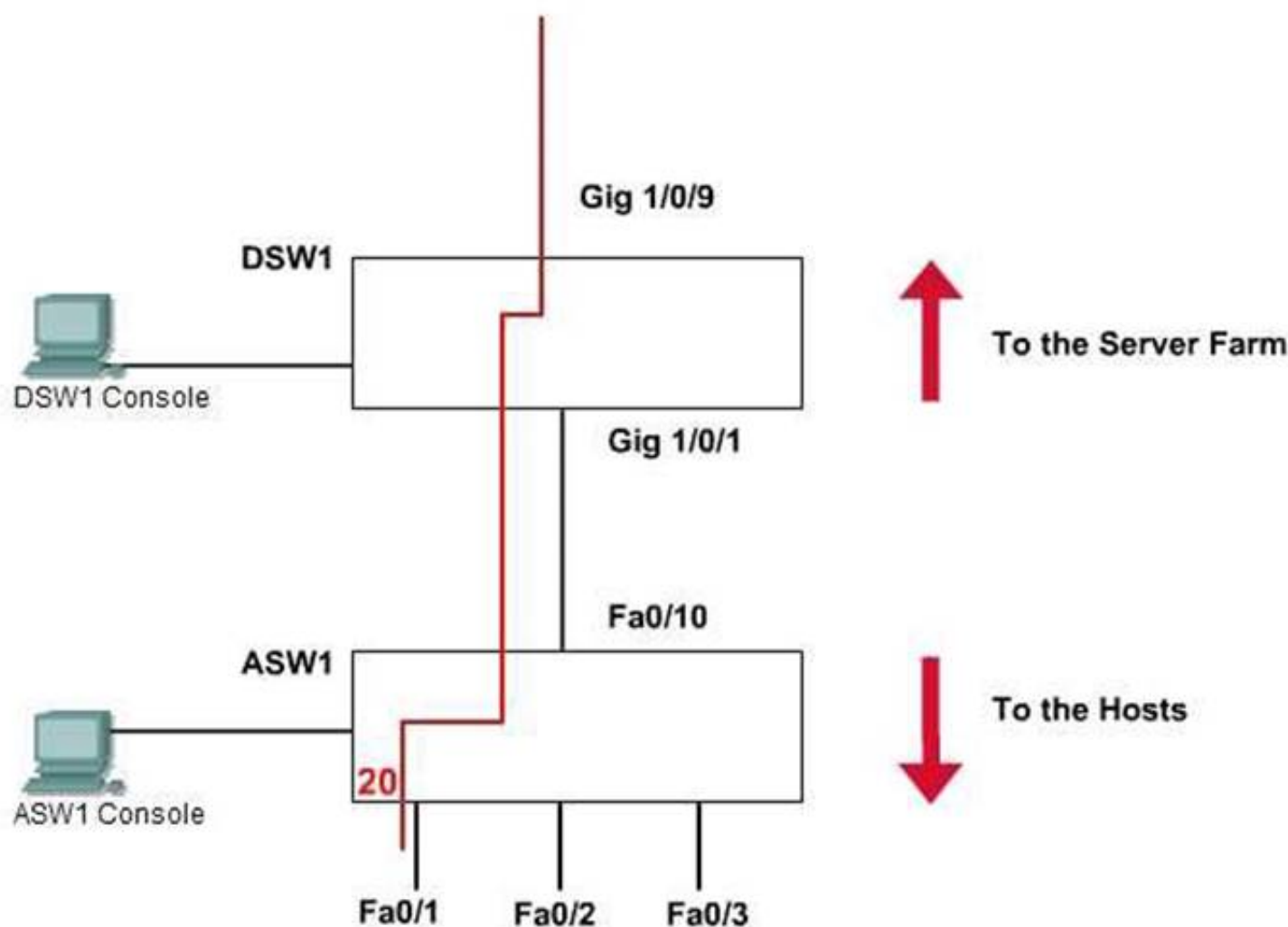
#### NEW QUESTION 345

SWITCH.com is an IT company that has an existing enterprise network comprised of two layer 2 only switches; DSW1 and ASW1. The topology diagram indicates their layer 2 mapping. VLAN 20 is a new VLAN that will be used to provide the shipping personnel access to the server. Corporate policies do not allow layer 3 functionality to be enabled on the switches. For security reasons, it is necessary to restrict access to VLAN 20 in the following manner:

- Users connecting to VLAN 20 via portO/1 on ASW1 must be authenticated before they are given access to the network. Authentication is to be done via a Radius server:

- Radius server host: 172.120.40.46
- Radius key: rad123
- Authentication should be implemented as close to the host as possible.
- Devices on VLAN 20 are restricted to the subnet of 172.120.40.0/24.
- Packets from devices in the subnet of 172.120.40.0/24 should be allowed on VLAN 20.
- Packets from devices in any other address range should be dropped on VLAN 20.
- Filtering should be implemented as close to the serverfarm as possible.

The Radius server and application servers will be installed at a future date. You have been tasked with implementing the above access control as a pre-condition to installing the servers. You must use the available IOS switch features.



**Answer:**

**Explanation:** The configuration:

Step1: Console to ASW1 from PC console 1 ASW1(config)#aaa new-model

ASW1(config)#radius-server host 172.120.39.46 key rad123 ASW1(config)#aaa authentication dot1x default group radius ASW1(config)#dot1x system-auth-control ASW1(config)#inter fastEthernet 0/1

ASW1(config-if)#switchport mode access ASW1(config-if)#dot1x port-control auto ASW1(config-if)#exit

ASW1#copy run start

Step2: Console to DSW1 from PC console 2

DSW1(config)#ip access-list standard 10 DSW1(config-ext-nacl)#permit 172.120.40.0 0.0.0.255 DSW1(config-ext-nacl)#exit

DSW1(config)#vlan access-map PASS 10 DSW1(config-access-map)#match ip address 10 DSW1(config-access-map)#action forward DSW1(config-access-map)#exit DSW1(config)#vlan access-map PASS 20 DSW1(config-access-map)#action drop DSW1(config-access-map)#exit DSW1(config)#vlan filter PASS vlan-list 20 DSW1#copy run start

#### NEW QUESTION 348

What is the command for configuring root guard?



- A. (config) spanning-tree guard root
- B. (config-if) spanning-tree guard root

**Answer:** B

#### NEW QUESTION 350

Which two commands prune VLAN 10 from a switch interface? (Choose two.)

- A. switchport trunk allowed except vlan 10
- B. switchport trunk native vlan 10
- C. switchport trunk allowed remove vlan 10
- D. switchport trunk allowed vlan add 10
- E. no vlan 10

**Answer:** BC

#### NEW QUESTION 354

Which two statements are result of using the command spanning-tree vlan 50 root primary within a spanning network under global configuration? (Choose two.)

- A. The priority value for VLAN 50 is set to 4094 on the root while the local switch priority is set to 32768.
- B. Spanning tree determines the priority of the current root for VLAN 50 and reduces the priority of the local switch to a lower value
- C. The switch port that is configured for VLAN 50 is the primary connection to the spanning tree root switch
- D. The Spanning-tree timers are reduced to improve the convergence time for VLAN 50
- E. All ports that are configured on the current switch with VLAN 50 transition to designated ports.

**Answer:** BE

#### NEW QUESTION 358

In the hardware address 0000.0c07.ac0a, what does 07.ac represent?

- A. vendor code
- B. HSRP group number
- C. HSRP router number
- D. HSRP well-known physical MAC address
- E. HSRP well-known virtual MAC address

**Answer:** E

#### NEW QUESTION 361

Which database about the switch database management template is true?

- A. The default template gives balance to all functions.
- B. The default template disables routing and supports the maximum number of unicast MAC addresses
- C. The default template maximizes system resources for access control list.
- D. The default template maximizes system resources for unicast routing.

**Answer:** A

#### NEW QUESTION 363

If StormControl is enabled on a port and the traffic reaches the configured level, which two actions can be configured to occur? (Choose two)

- A. Trap
- B. notify admin
- C. redirect traffic
- D. log
- E. shut down

**Answer:** AC

#### NEW QUESTION 365

What is the default port security violation.

- A. log
- B. shutdown
- C. no change
- D. error-disable

**Answer:** B

#### NEW QUESTION 369

Drag and drop the characteristics from the left to the matching STP mode on the right.

default STP mode

discarding port state

based on 802.1 w

maps VLANs to instances

based on IEEE 802.1s

based on IEEE 802.1D

PVST+

Rapid PVST+

MSTP

Answer:

Explanation:

PVST+

based on IEEE 802.1D

default STP mode

Rapid PVST+

based on 802.1w

discarding port state

MSTP

based on IEEE 802.1s

maps VLANs to instances

NEW QUESTION 372

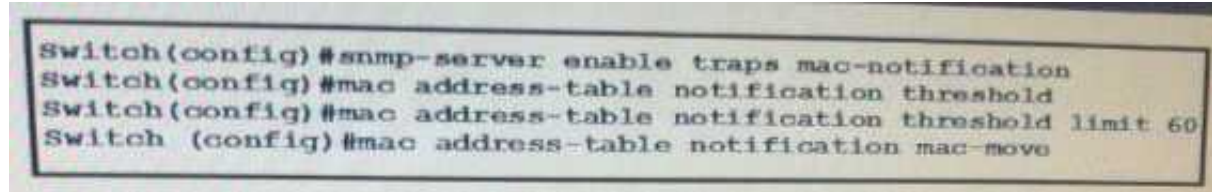
Where should the Root Guard be implemented in the network topology that Cisco recommends? (Choose two.)

- A. All non-root ports of the Access Switches.
- B. Downstream links from Distribution to Access Switches
- C. Access Switches to uplink ports to Distribution Switches
- D. On Layer 3 Switches.

Answer: AB

NEW QUESTION 377

Refer to the Exhibit:



Which two statements correctly indicates when an SNMP trap is sent to the switch? (Choose Two)

- A. When a new workstation connects to port F0/1
- B. When 61 MAC address are in the switch
- C. When 61 percent of the Address table capacity is used
- D. When the switch loses power and reboots
- E. When the phone previously on Fa0/2 is now connect to Fa0/5

**Answer:** CE

#### NEW QUESTION 379

Refer to the exhibit.

```
hostname Switch1
interface Vlan10
ip address 172.16.10.32 255.255.255.0
no ip redirects
standby 1 ip 172.16.10.110
standby 1 timers msec 200 msec 700
standby 1 preempt
```

```
hostname Switch2
interface Vlan10
ip address 172.16.10.33 255.255.255.0
no ip redirects
standby 1 ip 172.16.10.110
standby 1 timers msec 200 msec 750
standby 1 priority 110
standby 1 preempt
```

```
hostname Switch3
interface Vlan10
ip address 172.16.10.34 255.255.255.0
no ip redirects
standby 1 ip 172.16.10.110
standby 1 timers msec 200 msec 750
standby 1 priority 150
standby 1 preempt
```

Three switches are configured for HSRP. Switch1 remains in the HSRP listen state. What is the most likely cause of this status?

- A. this is normal operation
- B. standby group number does not match VLAN number
- C. IP addressing is incorrect
- D. incorrect priority commands
- E. incorrect standby timers

**Answer:** A

#### NEW QUESTION 384

switch#show standby

Virtual IP address is X.X.X.X Hello time 3 sec, hold time 10 sec Preemption disabled

Active router is X.X.X.3 priority 85 Standby router is local

Priority 90 (configured 90)

Track interface faX/X state decrement 10 (Choose two)



- A. The link will take over when .....
- B. X.X.X.3 is active because it has higher IP address
- C. when faX/x is down priority will be 80
- D. it is using default hello and hold values

**Answer:** CD

#### NEW QUESTION 386

Refer to the exhibit.

```
R2#show standby
FastEthernet1/0 - Group 50
  State is Active
    2 state changes, last state change 00:04:02
  Virtual IP address is 10.10.1.1
  Active virtual MAC address is 0000.0c07.ac32 (MAC In Use)
  Local virtual MAC address is 0000.0c07.ac32 (v1 default)
  Hello time 3 sec, hold time 10 sec
    Next hello sent in 1.504 secs
  Preemption enabled, delay reload 90 secs
  Active router is local
  Standby router is unknown
  Priority 200 (configured 200)
    Track interface FastEthernet0/0 state Up decrement 20
  Group name is "hsrp-fa1/0-50" (default)
R2#
%IP-4-DUPADDR: Duplicate address 10.10.1.1 on FastEthernet1/0, sourced by 0000.0c07.ac28
R2#
```

Which option is the most likely explanation of the duplicate address message logged?

- A. spanning-tree loop
- B. HSRP misconfiguration
- C. a PC with IP of 10.10.1.1
- D. a hardware problem

**Answer:** B

#### NEW QUESTION 390

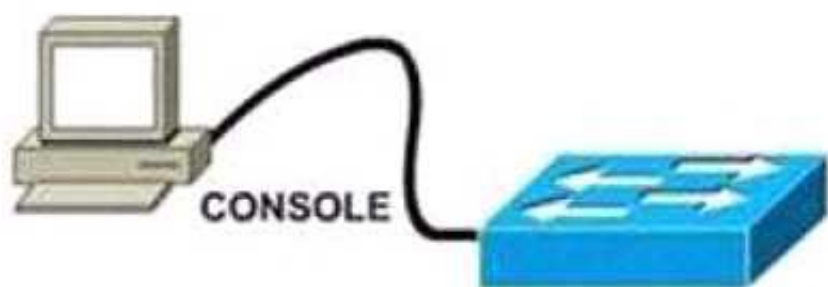
##### SIMULATION

The headquarter office for a cement manufacturer is installing a temporary Catalyst 3550 in an IDF to connect 24 additional users.

To prevent network corruption, it is important to have the correct configuration prior to connecting to the production network.

It will be necessary to ensure that the switch does not participate in VTP but forwards VTP advertisements that are received on trunk ports.

Because of errors that have been experienced on office computers, all non-trunking interfaces should transition immediately to the forwarding state of Spanning tree. Also configure the user ports (all FastEthernet ports) so that the ports are permanently non-trunking.



Requirement:

You will configure FastEthernet ports 0/12 through 0/24 for users who belong to VLAN 20. Also all VLAN and VTP configurations are to be completed in global configuration mode as VLAN database mode is being deprecated by Cisco. You are required to accomplish the following tasks:

1. Ensure the switch does not participate in VTP but forwards VTP advertisements received on trunk ports.
2. Ensure all non-trunking interfaces (Fa0/1 to Fa0/24) transition immediately to the forwarding state of Spanning-Tree.
3. Ensure all FastEthernet interfaces are in a permanent non-trunking mode.
4. Place FastEthernet interfaces 0/12 through 0/24 in VLAN 20.

**Answer:**

**Explanation:** /Reference:

Console into the Switch Switch>enable Switch#configure terminal

Switch(config)#interface range fa0/1 – 24

Switch(config-if-range)#switchport mode access <<Make all FastEthernet interfaces into access mode. Switch(config-if-range)#spanning-tree portfast <<Enables the PortFast on interface.

Next, we need to assign FastEthernet ports 0/12 through 0/24 to VLAN 20. By default, all ports on the switch are in VLAN 1. To change the VLAN associated with a port, you need to go to each interface (or a range of interfaces) and tell it which VLAN to be a part of.

Switch(config-if-range)#interface range fa0/12 – 24

Switch(config-if-range)#switchport access vlan 20 <<Make these ports members of vlan 20 Switch(config-if-range)#exit

Next we need to make this switch in transparent mode. In this mode, switch doesn't participate in the VTP domain, but it still forwards VTP advertisements through



any configured trunk links.  
 Switch(config)#vtp mode transparent Switch(config)#exit  
 Switch#copy running-config startup-config

#### NEW QUESTION 395

Which two statements about RSPAN are true'? (Choose two)

- A. RSPAN VLANs can carry RSPAN traffic only.
- B. It supports MAC address learning
- C. Only one RSPAN VLAN can be configured per device
- D. MAC address learning is not supported I RSPAN VLANs are exempt from VTP pruning
- E. RSPAN uses a GRE tunnel to transmit captured traffic

**Answer: AD**

#### NEW QUESTION 397

Which HSRP extension allows groups to share traffic loads?

- A. GLBP
- B. CHSRP
- C. MHSRP
- D. CGMP
- E. FHRP

**Answer: C**

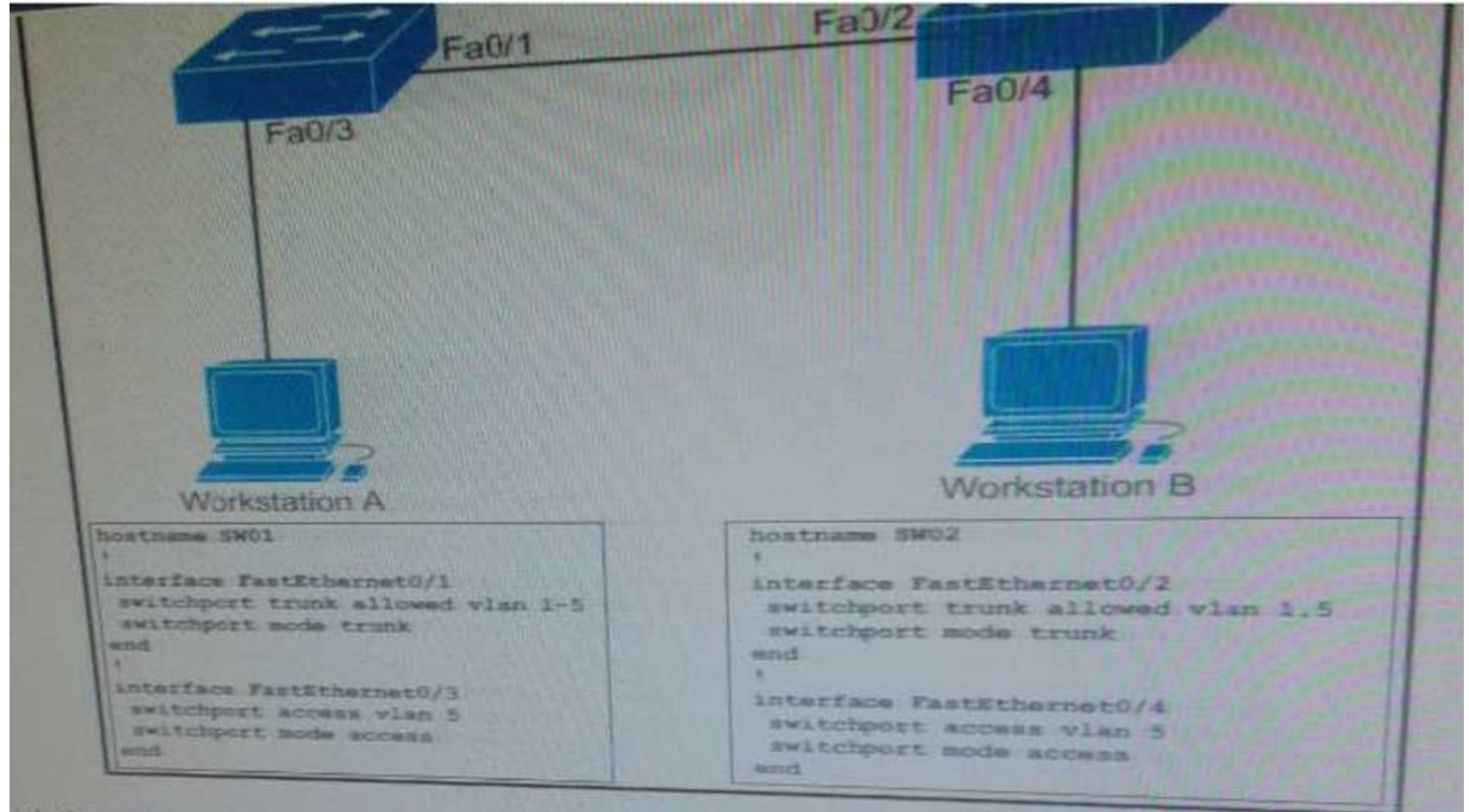
#### NEW QUESTION 399

What do subordinate switches in a switch stack keep?

- A. Subordinate switches keep their own spanning trees for each VLAN that they support.
- B. Subordinate switches keep entire VLAN database
- C. Store running config all the switches

**Answer: A**

#### NEW QUESTION 402



Refer to the exhibit. Which description of the effect of entering the switch port trunk allowed vlan 2,3,4 command on Fast Ethernet 0/2 0 true?

- A. The two workstations continue to communication without a default gateway configured.
- B. the command is unsupported on a trunk where VLANs have already been pruned manually.
- C. The running configuration displays switch port trunk allowed vlan 1-5 for Fa0/2.
- D. the two workstation stop communicating because they are on VLAN 5. Which is not allowed on the trunk.

**Answer: A**

#### NEW QUESTION 404

A network engineer wants to make sure that an access switch will never become a Spanning Tree root for VLAN 5. What action will accomplish this task?

- A. adjust STP priority to the maximum value
- B. disable STP globally
- C. apply root guard to all outgoing neighbor interfaces
- D. enable MSTP and use a different revision number than all other switches

**Answer:** A

#### NEW QUESTION 407

An access switch at a remote location is connected to the spanning-tree root with redundant uplinks. A network engineer notices that there are issues with the physical cabling of the current root port. The engineer decides to force the secondary link to be the desired forwarding root port. Which action accomplishes this task?

- A. Change the link-type to point-to-point.
- B. Enable Rapid Spanning Tree to converge using the secondary link.
- C. Adjust the secondary link to have a lower priority than the primary link.
- D. Apply a BPDU filter on the primary interface of the remote switches.

**Answer:** C

#### NEW QUESTION 409

Refer to the exhibit. On the basis of the output of the show spanning-tree inconsistentports command, which statement about interfaces FastEthernet 0/1 and FastEthernet 0/2 is true?

SW1# show spanning-tree inconsistentports		
Name	Interface	Inconsistency
-----	-----	-----
VLAN0001	FastEthernet0/ 1	Root Inconsistent
VLAN0001	FastEthernet0/2	Root Inconsistent
Number of inconsistent ports (segments) in the system : 2		

- A. They have been configured with the spanning-tree bpduguard disable command.
- B. They have been configured with the spanning-tree bpduguard enable command.
- C. They have been configured with the spanning-tree bpdufilter disable command.
- D. They have been configured with the spanning-tree bpdufilter enable command.
- E. They have been configured with the spanning-tree guard loop command.
- F. They have been configured with the spanning-tree guard root command.

**Answer:** F

#### NEW QUESTION 411

After you connected a host to switch port G0/1, the port error disabled. Which command can you enter to determine the reason?

- A. show ip interface brief
- B. Show run interface g0/1
- C. show interfaces g0/1 status
- D. show log

**Answer:** B

#### NEW QUESTION 415

Which option is the minimum number of bindings that the DHCP snooping database can store?

- A. 1000 bindings
- B. 2000 bindings
- C. 5000 bindings
- D. 8000 bindings

**Answer:** D

#### NEW QUESTION 416

Refer to the exhibit.



An engineer has run the show EtherChannel summary command and the output is displayed. Which statement about the status of the EtherChannel is true?

- A. The EtherChannel is operational and configured for PAgP
- B. The EtherChannel is down because of a mismatched EtherChannel protocol
- C. The EtherChannel is down and configured for LACP
- D. The EtherChannel is operational and is using no EtherChannel protocol

**Answer:** D

#### NEW QUESTION 418

Which describes the default load balancing scheme used by the Gateway Load Balancing Protocol (GLBP)?

- A. Per host using a strict priority scheme
- B. Per session using a round-robin scheme
- C. Per session using a strict priority scheme
- D. Per GLBP group using a strict priority scheme
- E. Per host basis using a round robin-scheme
- F. Per GLBP group using a round-robin scheme

**Answer:** E

#### NEW QUESTION 422

HSRP has been configured between two Company devices. Which of the following describe reasons for deploying HSRP? (Choose three)

- A. HSRP provides redundancy and fault tolerance.
- B. HSRP allows one router to automatically assume the function of the second router if the second router fails.
- C. HSRP allows one router to automatically assume the function of the second router if the second router starts.
- D. HSRP provides redundancy and load balancing.

**Answer:** ABD

#### NEW QUESTION 425

If a switch stack is configured to use SDM templates, where are the templates stored?

- A. all stack members
- B. stack master
- C. TFTP server
- D. flash memory

**Answer:** B

#### NEW QUESTION 427

Refer to the output below.

Which statement about the current configuration on port GigabitEthernet2/0/1 is true?

InterfaceGigabitEthernet2/0/1 description to mail room M 13-57- 050  
 switchport access vlan 700 switchport trunk allowed vlan 200,300,700

- A. It is a trunk port and the native VLAN is VLAN1
- B. It is a trunk port and the native VLAN is VLAN 700
- C. It is an access port configured for a phone and a PC
- D. It is an access port in VLAN /700

**Answer:** A

#### NEW QUESTION 431

Refer to the exhibit.



```

MST1
Spanning tree enabled protocol mstp
Root ID    Priority    32768
          Address    0010.7363.4300
          Cost      2
          Port      13 (FastEthernet0/11)
          Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec

Bridge ID   Priority    32768 (priority 32768 sys-id-ext 1)
          Address    001b.0d8e.e080
          Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec

Interface   Role Sts Cost      Prio.Nbr Type
-----
Fa1/0/7     Desg FWD 2         128.9   P2p Bound (PVST)
Fa1/0/10     Desg FWD 2         128.12  P2p Bound (PVST)
Fa1/0/11     Root FWD 2         128.13  P2p
Fa1/0/12     Altn BLK 2         128.14  P2p

DSW1#sh spanning-tree mst
#### MST1    vlans mapped: 10,20
Bridge      address 001b.0d8e.e080 priority 32768 (32768 sysid 1)
Root        address 0010.7363.4300 priority 32768 (32768 sysid 1)
            port Fa1/0/11 cost 2    rcv hops 19

... output omitted

```

Which two commands ensure that DSW1 becomes root bridge for VLAN 10 and 20? (Choose two.)

- A. spanning-tree mstp 1 priority 0
- B. spanning-tree mst 1 root primary
- C. spanning-tree mst vlan 10,20 priority root
- D. spanning-tree mst 1 priority 4096
- E. spanning-tree mst 1 priority 1
- F. spanning-tree mstp vlan 10,20 root primary

**Answer:** BD

#### NEW QUESTION 432

What SPAN configuration is required to enable on a switch?

- A. A monitor VLAN is created for the SPAN traffic.
- B. Configure a source and destination port
- C. Disable VTP pruning on trunk links
- D. NA

**Answer:** B

#### NEW QUESTION 437

A network engineer is considering implementing UDLD throughout the network. Which option must the network engineer consider?

- A. UDLD works at Layer 1 of the OSI model.
- B. UDLD is already enabled by default on all ports on Cisco switches.
- C. UDLD aggressively disables the port after eight failed retries to connect to neighbor.
- D. UDLD is an IEEE standard that can be configured on non-Cisco devices.

**Answer:** C

#### NEW QUESTION 441

Which two statements about CDP are true? (Choose two.)

- A. CDP uses a TLV to advertise the native VLAN
- B. CDP is not supported with SNMP
- C. CDP is supported on Frame Relay sub interfaces.
- D. CDP runs on OSI layer 2
- E. CDP runs on OSI layer 1

**Answer:** AD

#### NEW QUESTION 444

Which two statements about VRRP object tracking are true? (Choose two)

The priority Of a VRRP device can change in accordance with the up or down status of a VRRP object

- A. VRRP group can track only one object at a time
- B. VRRP supports only interface tracking
- C. VRRP can track the status of interfaces and routes
- D. The VRRP interlace priority must be manually configured by the administrator

**Answer:** AB

#### NEW QUESTION 446

Which command enables root guard on a Cisco switch at location id:28468780 ?

- A. Switch (config)#spanning-tree guard root
- B. Switch (config-if)#spanning-tree guard-root
- C. Switch (config-if)#spanning-tree root guard



- D. Switch (config-if)#spanning-tree guard root
- E. Switch (config)#spanning-tree root guard

**Answer:** D

#### NEW QUESTION 448

Which of the following HSRP router states does an active router enter when it is preempted by a higher priority router? (Select the best answer.)

- A. active
- B. speak
- C. learn
- D. listen
- E. init
- F. standby

**Answer:** B

#### NEW QUESTION 453

What VSS technology allows you to share downstream resources?

- A. LACP
- B. PAgP
- C. MEC
- D. EOA

**Answer:** C

#### NEW QUESTION 454

Refer to the exhibit.

```
SW1#sh monitor session all
Session 1
-----
Type                               : Remote Destination Session
Source RSPAN VLAN                  : 50

Session 2
-----
Type                               : Local Session
Source Ports                       :
    Both                           : Fa0/14
    Destination Ports              : Fa0/15
    Encapsulation                   : Native
    Ingress                         : Disables
```

Which statement about the SPAN and RSPAN configuration on SW1 is true?

- A. SPAN session 2 only monitors egress traffic exiting port FastEthernet 0/14.
- B. RSPAN session 1 monitors activity on VLAN 50 of a remote switch.
- C. RSPAN session 1 is incompletely configured for monitoring.
- D. SPAN session 2 monitors all traffic entering and exiting port FastEthernet 0/15.

**Answer:** C

#### NEW QUESTION 458

Which statement is correct about 802.1Q trunking?

- A. Both switches must be in the same VTP domain.
- B. The encapsulation type of both ends of the trunk does not have to match.
- C. The native VLAN on both ends of the trunk must be VLAN 1.
- D. 802.1Q trunking can only be configured on a Layer 2 port.
- E. In 802.1Q trunking, all VLAN packets are tagged on the trunk link, except the native VLAN.

**Answer:** E

#### NEW QUESTION 461

In which two ways can a port respond to a port-security violation? (Choose two.)

- A. The port enters the en-disabled state
- B. The Security Violation counter is incremented and the port sends an SNMP trap
- C. The Security Violation counter is incremented and the port sends a critical syslog message to the console
- D. The port triggers an EEM script to notify support staff and continues to forward traffic normally
- E. The port immediately begins to drop all traffic.
- F. The port enters the shutdown state.

Answer: AB

#### NEW QUESTION 462

Refer to the exhibit.

```
DSW1#sh vtp status
VTP Version                : running VTP1 (VTP2 capable)
Configuration Revision      : 2
Maximum VLANs supported locally : 1005
Number of existing VLANs    : 7
VTP Operating Mode          : Client
VTP Domain Name             : DALLAS
VTP Pruning Mode            : Disabled
VTP V2 Mode                 : Disabled
VTP Traps Generation        : Disabled
MD5 digest                  : 0xF1 0xAC 0x5E 0xCF 0xF7 0xEE 0x9E 0xD6
Configuration last modified by 10.101.101.11 at 3-1-93 23:57:30

DSW2#sh vtp status
VTP Version                : running VTP1 (VTP2 capable)
Configuration Revision      : 3
Maximum VLANs supported locally : 1005
Number of existing VLANs    : 7
VTP Operating Mode          : Server
VTP Domain Name             : DALLAS
VTP Pruning Mode            : Disabled
VTP V2 Mode                 : Disabled
VTP Traps Generation        : Disabled
MD5 digest                  : 0xE5 0x4D 0xC1 0xF0 0x8F 0xF1 0x4B 0x8C
Configuration last modified by 10.101.101.11 at 3-1-93 23:50:31

DSW2#sh spanning-tree mst configuration
Name      [DALLAS]
Revision  3      Instances configured 3

Instance  Vlan mapped
-----
0         1-9,11-19,21-29,41-4094
1         10,20
2         30-40
-----
```

DSW1 should share the same MST region with switch DSW2. Which statement is true?

- A. Configure DSW1 with the same version number, and VLAN-to-instance mapping as shown on DSW2.
- B. DSW2 uses the VTP server mode to automatically propagate the MST configuration to DSW1.
- C. DSW1 automatically inherits MST configuration from DSW2 because they have the same domain name.
- D. Configure DSW1 with the same region name, revision number, and VLAN-to-instance mapping as shown on DSW2.
- E. DSW1 is in VTP client mode with a lower configuration revision number, therefore, it automatically inherits MST configuration from DSW2.

Answer: D

#### NEW QUESTION 464

Which two statements about Cisco StackWise are true? (Choose two.)

- A. Each stack identifies a stack master and a backup stack master
- B. It supports both homogeneous and mixed stacks.
- C. The LAN base feature set is supported on mixed stacks
- D. Stacks running the LAN base feature set support Layer 3 features
- E. It supports multiple switches in a stack

Answer: BE

#### NEW QUESTION 465

Your manager asked you to make every port on your switch bypass the normal spanning-tree timers which includes your uplink to other switches. What two commands can you apply on the interfaces? (Choose two.)

- A. spanning-tree portfast
- B. spanning-tree portfast default
- C. spanning-tree portfast access
- D. spanning-tree portfast trunk

**Answer:** AD

#### NEW QUESTION 469

You administer a network that uses two routers, R1 and R2, configured as an HSRP group to provide redundancy for the gateway. Router R1 is the active router and has been configured as follows:

```
R1#configure terminal
```

```
R1(config)#interface fa0/0
```

```
R1(config-if)#ip address 10.10.0.5 255.255.255.0
```

```
R1(config-if)#standby 1 priority 150
```

```
R1(config-if)#standby preempt delay minimum 50 R1(config-if)#standby 1 track interface fa0/2 15
```

```
R1(config-if)#standby 1 ip 10.10.0.20
```

Which of the following describes the effect the "standby preempt delay minimum 50" command will have on router R1? (Select the best answer.)

- A. The HSRP priority for router R1 will increase to 200.
- B. Router R1 will become the standby router if the priority drops below 50.
- C. The HSRP priority for router R1 will decrease to 50 points when Fa0/2 goes down.
- D. Router R1 will wait 50 seconds before attempting to preempt the active router.

**Answer:** D

#### NEW QUESTION 470

Which will identify the master switch in stack wise?

- A. lower priority
- B. higher priority
- C. lower id
- D. higher id

**Answer:** B

#### NEW QUESTION 474

Your company wants to connect an internal switch to the uplink provider switch. What method / feature / functions you need to enable to prevent initial / potential broadcast of internal information/topology?

- A. BPDU Filter
- B. BPDU Guard
- C. BPDU Loop
- D. BPDU bridge

**Answer:** A

#### NEW QUESTION 477

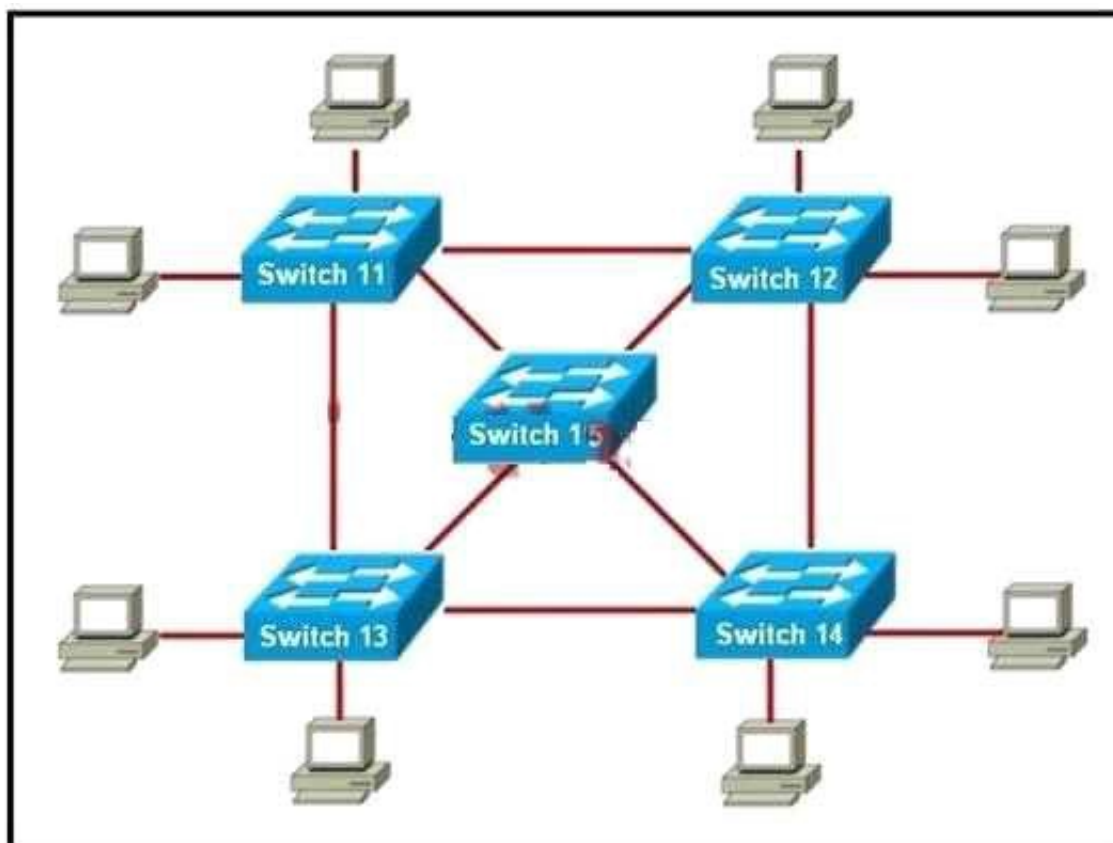
VLAN maps have been configured on switch R1. Which of the following actions are taken in a VLAN map that does not contain a match clause?

- A. Implicit deny feature at end of list.
- B. Implicit deny feature at start of list.
- C. Implicit forward feature at end of list
- D. Implicit forward feature at start of list.

**Answer:** A

#### NEW QUESTION 481

Refer to the exhibit. Switch 15 is configured as the root switch for VLAN 10 but not for VLAN 20. If the STP configuration is correct, what will be true about Switch 15?



- A. All ports will be in forwarding mode.
- B. All ports in VLAN 10 will be in forwarding mode.
- C. All ports in VLAN 10 will be in forwarding mode and all ports in VLAN 20 will be in blocking mode.
- D. All ports in VLAN 10 will be in forwarding mode and all ports in VLAN 20 will be in standby mode.

**Answer:** B

#### NEW QUESTION 485

The behavior of VLAN 1 BPDUs in a situation where the Native VLAN configured as VLAN 99 and the Native VLAN is Tagged?

- A. VLAN 1 STP BPDU tagged through VLAN 1
- B. VLAN 1 STP BPDU untagged through VLAN 1
- C. VLAN 1 STP BPDU tagged through VLAN 99
- D. VLAN 1 STP BPDU untagged through VLAN 99
- E. VLAN 1 STP BPDU tagged through VLAN 1 and 99
- F. VLAN 1 STP BPDU untagged through VLAN 1 and 99

**Answer:** AD

#### NEW QUESTION 487

To provide security, a service provider configures various private VLANs in its backbone network infrastructure to prevent certain VLAN communication to each other. Which version of VTP supports the use of private VLANs?

- A. Version 1
- B. Version 3
- C. VTP does not support private VLANs
- D. Version 2

**Answer:** B

#### NEW QUESTION 489

In regards to Cisco Virtual Switching System which technology is needed between two switches for them to act as one network element and share control information and data traffic?

- A. trunk
- B. virtual port channel
- C. EtherChannel
- D. virtual switch link

**Answer:** D

#### NEW QUESTION 493

What condition was match during etherchannel configuration.

- A. Spanning tree port priority
- B. Spanning tree cost
- C. Interface Description
- D. Trunk mode
- E. Trunk allow vlan

**Answer:** DE



# NEW QUESTION 496

Drag and drop the characteristic from the left to the matching Layer 2 protocol on the right.

sends topology change notification

Default time between protocol frames is 60 seconds.

uses multicast address 01-80-C2-00-00-0E

Default time between protocol frames is 30 seconds.

uses multicast address 0100.0ccc.cccc

supports IEEE 802.2 and 802.3 encapsulation

CDP

LLDP

Answer:

Explanation:

CDP

uses multicast address 0100.0ccc.cccc

supports IEEE 802.2 and 802.3 encapsulation

Default time between protocol frames is 60 seconds.

LLDP

sends topology change notification

uses multicast address 01-80-C2-00-00-0E

Default time between protocol frames is 30 seconds.

# NEW QUESTION 499

Refer to the exhibit.

```
spanning-tree extend system-id
spanning-tree mode pvst
spanning-tree backbonefast
```

What is the effect of the given configuration?

- A. It enables the switch to become the spanning-tree root bridge.
- B. It enables the reduced MAC address feature.
- C. It enables spanning-tree to create dynamic system IDs.
- D. It enables extended VLANs.

Answer: C

#### NEW QUESTION 501

Which statement about HSRP, GLBP, and VRRP is true?

- A. VRRP group members communicate using multicast address 224.0.0.102.
- B. MAC address 0000.0c07.ac0c indicates that default gateway redundancy is provided through GLBP.
- C. HSRP group members communicate using multicast address 224.0.0.18.
- D. GLBP uses UDP port 3222 (source and destination) for hello messages.

**Answer:** A

#### NEW QUESTION 502

Which command do you enter so that the default authentication group on a device falls back to the case-sensitive local user database when the initial authentication fails?

- A. aaa authentication login default group tacacs+ radius local
- B. aaa authentication exec default group tacacs+ local if-authenticated
- C. aaa authentication login default group tacacs+ local-case if-authenticated
- D. aaa authentication exec default group tacacs+ if-authenticated local

**Answer:** C

#### NEW QUESTION 505

Which Cisco Stack Wise feature is supported?

- A. using different versions of the Cisco IOS on each switch
- B. using different SDM templates on each switch
- C. using same software feature set on all members
- D. using mixed software feature set on all members

**Answer:** C

#### NEW QUESTION 509

Which three statements are true of a default HSRP configuration? (Choose three.)

- A. The Standby hello time is 2 seconds.
- B. Two HSRP groups are configured.
- C. The Standby track interface priority decrement is 10.
- D. The Standby hold time is 10 seconds
- E. The Standby priority is 100.
- F. The Standby delay is 3 seconds.

**Answer:** CDE

#### NEW QUESTION 514

Which of the following commands can be issued without interfering with the operation of loop guard?

- A. Switch(config-if)#spanning-tree guard root
- B. Switch(config-if)#spanning-tree portfast
- C. Switch(config-if)#switchport mode trunk
- D. Switch(config-if)#switchport mode access

**Answer:** C

#### NEW QUESTION 519

Regarding high availability, with the MAC address 0000.0c07.ac03, what does the "03" represent?

- A. The GLBP group number
- B. The type of encapsulation
- C. The HSRP router number
- D. The VRRP group number
- E. The HSRP group number
- F. The active router number

**Answer:** E

#### NEW QUESTION 524

Which two statements apply to topology-based switching?

- A. It is functionally equivalent to Cisco Express Forwarding
- B. It is the preferred switching mode in Cisco multilayer switches
- C. It uses Loop free protocol for switching
- D. disabled by default

**Answer:** AB

#### NEW QUESTION 529

Under which two conditions does Cisco StackWise Virtual transmit data over a virtual link? (choose two)

- A. Packets are processed on the ingress interface on the standby switch.
- B. A VLAN is flooded over Layer 2.
- C. Packets are processed on the ingress interface on the active switch.
- D. Packets are processed on the egress interface on the standby switch.
- E. Packets are processed on the egress interface on the active switch.

**Answer:** BC

#### NEW QUESTION 531

Which layer private VLAN partition the broadcast domain?

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

**Answer:** B

#### NEW QUESTION 532

Refer to the exhibit.

```
switch#sh run
Building configuration...

Interface FastEthernet0/1
  description Uplink to Core
  switchport
  switchport trunk encapsulation dot1q
  switchport trunk allowed vlan 1-90,100-199,200-900,1000-4000
  switchport mode trunk
```

A network engineer changes the default native VLAN to VLAN 999. After applying the settings on the uplinks to the core switches, the switch control traffic, such as CDP and VTP, is no longer working. The standard configuration is used for each uplink. What is wrong with the configuration?

- A. The interface is administratively down.
- B. The encapsulation type is incorrect.
- C. The switchport mode trunk command should be first in the output.
- D. The native VLAN is not present on the trunk.
- E. The control traffic must be manually enabled on the new native VLAN.

**Answer:** D

#### NEW QUESTION 537

You have recently deployed an access switch with two fiber cables that connect it to a distribution switch in Ether Channel mode. Soon after it booked up one of the uplink ports to the distribution switch was error disabled. Which option is the most likely reason for the problem”?

- A. The switch is operating in UDLD normal mode and it failed to receive UDLD message from the peer.
- B. The switch is operating in UDLD aggressive mode and it farked to receive a UDLD message from peer.
- C. Spanning tree detected loop
- D. The port-channel detected an inconsistent configuration

**Answer:** B

#### NEW QUESTION 541

Which statement is true about RSTP topology changes?

- A. Any change in the state of the port generates a TC BPDU.
- B. Only nonedge ports moving to the forwarding state generate a TC BPDU.
- C. If either an edge port or a nonedge port moves to a block state, then a TC BPDU is generated.
- D. Only edge ports moving to the blocking state generate a TC BPDU.
- E. Any loss of connectivity generates a TC BPDU.

**Answer:** B

#### NEW QUESTION 544

In a switch stack environment, what is the total bidirectional traffic flow between two logical counter-rotating paths?

- A. 16 Gbps
- B. 32 Gbps
- C. 64 Gbps
- D. 128 Gbps

**Answer:** B

#### NEW QUESTION 548

Which two features can you configure on an access port? (Choose two.)

- A. voice VLAN
- B. 802.1q
- C. QinQ
- D. STP mode
- E. PortFast

**Answer:** AE

#### NEW QUESTION 551

Which two statements about SDM templates are true?

- A. They are used to allocate system resources
- B. Changing the SDM template will not disturb switch operation.
- C. You can verify the SDM template that is in use with the show sdm prefer command

**Answer:** AC

#### NEW QUESTION 552

Which two combinations of Ether Channel modes support the formation of an EtherChannel? (Choose two.)

- A. desirable, passive
- B. desirable, desirable
- C. active, passive
- D. passive, passive
- E. active, desirable

**Answer:** BC

#### NEW QUESTION 556

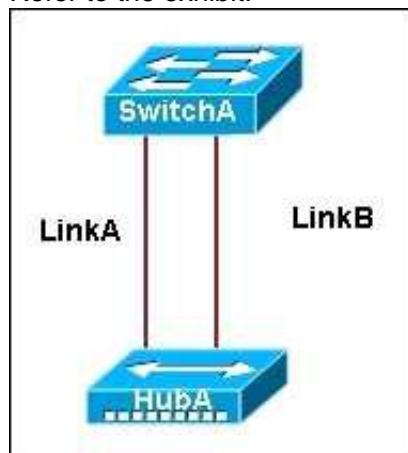
Which virtual MAC address does HSRP group 37 USE with default configuration?

- A. 00:00:c:07ac:25
- B. 00:00:c:07ac:37
- C. 00:00:c:37:00:00
- D. 00:00:c:25:00:00

**Answer:** A

#### NEW QUESTION 561

Refer to the exhibit.



BPDUGuard is enabled on both ports of SwitchA. Initially, LinkA is connected and forwarding traffic. A new LinkB is then attached between SwitchA and HubA. Which two statements about the possible result of attaching the second link are true? (Choose two.)

- A. The switch port attached to LinkB Does not transition to up.
- B. One or both of the two switch ports attached to the hub goes into the err-disabled state when a BPDU is received.
- C. Both switch ports attached to the hub transitions to the blocking state.
- D. A heavy traffic load could cause BPDU transmissions to be blocked and leave a switching loop.
- E. The switch port attached to LinkA immediately transitions to the blocking state.

**Answer:** BD

#### NEW QUESTION 566

Which three VLANs are part of the extended range to available VLANs? (Choose three. )

- A. 4094
- B. 1001
- C. 4095
- D. 4195



E. 3000  
F. 100G

**Answer:** AEF

#### NEW QUESTION 570

Which two command sequences must you enter on a pair of switches so that they negotiate an EtherChannel using the Cisco proprietary port-aggregation protocol? (Choose two.)

- A. channel-protocol lacp channel-group 1 mode on
- B. channel-protocol pagp channel-group 1 mode auto
- C. channel-protocol lacp channel-group 1 mode active
- D. channel-protocol pagpchannel-group 1 mode desirable
- E. channel-protocol pagp channel-group 1 mode on

**Answer:** BD

#### NEW QUESTION 571

Which command overrides the default priority of frames on an IP phone?

- A. mls qos trust dsip
- B. switchport priority extend trust
- C. mls qos trust cos
- D. mls qos trust cos
- E. priority-queue out

**Answer:** B

#### NEW QUESTION 575

Which component does the GLBP client cache stores for each host of a particular GLBP group?

- A. IP address
- B. MAC address
- C. VLAN
- D. Token ring
- E. DCSP

**Answer:** B

#### NEW QUESTION 578

Refer to the exhibit.

```
R1
interface GigabitEthernet0/0
ip address 192.168.250.2 255.255.255.0
standby 20 ip 192.168.250.1
standby 20 priority 120

R2
interface GigabitEthernet0/0
ip address 192.168.250.3 255.255.255.0
standby 20 ip 192.168.250.1
standby 20 priority 110
```

Which two effects of this configuration are true? (Choose two.)

- A. R1 becomes the active router
- B. If R2 goes down, R1 becomes active but reverts to standby when R2 comes back online
- C. Hello messages are sent to multicast address 224.0.0.5.
- D. If R1 goes down, R2 becomes active but reverts to standby when R1 comes back online.
- E. R1 goes down, R2 becomes active and remains the active device when R1 comes back online
- F. R1 becomes the standby router.

**Answer:** AE

#### NEW QUESTION 581

Which statement about VSPAN is true?

- A. It can monitor ingress and egress traffic on the source VLAN.
- B. It can monitor token ring VLANs.
- C. It sends all VLAN traffic to the destination port regardless of the VLAN's status.

D. It can monitor destination port traffic that belongs to a source VLAN

**Answer:** D

**NEW QUESTION 584**

in a Cisco StackWise Virtual environment, which planes on the component devices are virtually combined in the common logical switch?

- A. management and data only
- B. control and data only
- C. control and management only
- D. control, data, and management

**Answer:** C

**NEW QUESTION 585**

Which AAA authorization method uses a vendor-neutral directory information protocol?

- A. LDAP
- B. TACACS+
- C. RADIUS
- D. Kerberos

**Answer:** C

**NEW QUESTION 589**

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