

## 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 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 3

A network engineer changed the port speed and duplex setting of an existing EtherChannel bundle that uses the PAgP protocol. Which statement describes what happens to all ports in the bundle?

- A. PAgP changes the port speed and duplex for all ports in the bundle.
- B. PAgP drops the ports that do not match the configuration.
- C. PAgP does not change the port speed and duplex for all ports in the bundle until the switch is rebooted.
- D. PAgP changes the port speed but not the duplex for all ports in the bundle.

**Answer:** A

#### NEW QUESTION 4

A network engineer notices inconsistent Cisco Discovery Protocol neighbors according to the diagram that is provided. The engineer notices only a single neighbor that uses Cisco Discovery Protocol, but it has several routing neighbor relationships. What would cause the output to show only the single neighbor?

- A. The routers are connected via a Layer 2 switch.
- B. IP routing is disabled on neighboring devices.
- C. Cisco Express Forwarding is enabled locally.
- D. Cisco Discovery Protocol advertisements are inconsistent between the local and remote devices.

**Answer:** A

#### NEW QUESTION 5

A network engineer must improve bandwidth and resource utilization on the switches by stopping the inefficient flooding of frames on trunk ports where the frames are not needed. Which Cisco IOS feature can be used to achieve this task?

- A. VTP pruning
- B. access list
- C. switchport trunk allowed VLAN
- D. VLAN access-map

**Answer:** A

#### NEW QUESTION 6

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 7

Which two protocols can be automatically negotiated between switches for trunking? (Choose two.)

- A. PPP
- B. DTP
- C. ISL
- D. HDLC
- E. DLCI
- F. DOT1Q

**Answer:** CF

# NEW QUESTION 8

Refer to the exhibit.

```
SW1#show spanning-tree vlan 1
VLAN0001
Spanning tree enabled protocol ieee
Root ID Priority 1
Address 001b.bbbb.dddd
This bridge is the root
Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
Bridge ID Priority 1 (priority 0 sys-id-ext 1)
Address 001b.bbbb.dddd
```

```
Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
Aging Time 300
```

Interface	Role	Sts	Cost	Prio.Nbr	Type
Fa0/1	Desg	FWD	19	128.15	P2p
Fa0/2	Desg	FWD	19	128.16	P2p
Fa0/3	Desg	FWD	19	128.17	P2p
Fa0/4	Desg	FWD	19	128.18	P2p
Fa0/5	Desg	FWD	19	128.19	P2p
Fa0/6	Desg	FWD	19	128.19	P2p

Why would the switch be considered as a root bridge?

- A. The bridge priority is 1 and all ports are forwarding.
- B. The switch priority for VLAN 1 and the macro specifies "This Bridge is the root".
- C. The bridge priority is 128.19 and all ports are forwarding.
- D. The switch priority value is zero, it has the lowest priority value for VLAN 1.

Answer: D

# NEW QUESTION 9

Refer to the exhibit.

```
hostname Switch1
<output omitted>
!
port-channel load-balance dst-ip
!
interface GigabitEthernet0/1
channel-group 10 mode active
!
interface GigabitEthernet0/2
channel-group 10 mode passive
!
```

```
hostname Switch2
<output omitted>
!
port-channel load-balance src-mac
!
interface GigabitEthernet0/1
channel-group 10 mode passive
!
interface GigabitEthernet0/2
channel-group 10 mode active
!
```



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

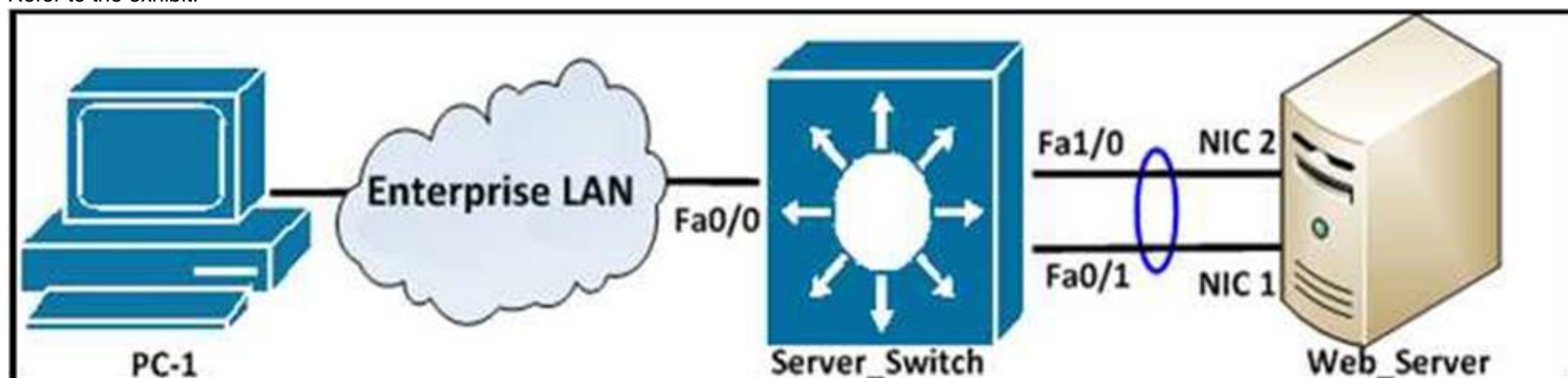
A network engineer must implement Ethernet links that are capable of transporting frames and IP traffic for different broadcast domains that are mutually isolated. Consider that this is a multivendor environment. Which Cisco IOS switching feature can be used to achieve the task?

- 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 10

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

Which feature is automatically enabled when a voice VLAN is configured, but not automatically disabled when a voice VLAN is removed?

- A. portfast
- B. port-security
- C. spanning tree
- D. storm control

**Answer: A**

#### NEW QUESTION 21

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

Which statement describes what happens when a switch enters dual active recovery mode?

- A. The switch shuts down and waits for the VSL link to be restored before sending traffic.  
B. All interfaces are shut down in the formerly active virtual switch member, but the new active virtual switch forwards traffic on all links.  
C. The switch continues to forward traffic out all links and enables spanning tree on VSL link and all other links to prevent loops.  
D. The VSS detects which system was last in active state and shuts down the other switch.

**Answer:** B

#### NEW QUESTION 30

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	Gig1/0/2, Gig1/0/3, Gig1/0/4 Gig1/0/5, Gig1/0/6, Gig1/0/7 Gig1/0/8, Gig1/0/9, Gig1/0/10 Gig1/0/11, Gig1/0/12, Gig1/0/13 Gig1/0/14, Gig1/0/15, Gig1/0/16 Gig1/0/17, Gig1/0/18, Gig1/0/19 Gig1/0/20, Gig1/0/21, Gig1/0/22 Gig1/0/23, Gig1/0/24
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	Gig1/0/2, Gig1/0/3, Gig1/0/4 Gig1/0/5, Gig1/0/6, Gig1/0/7 Gig1/0/8, Gig1/0/9, Gig1/0/10 Gig1/0/11, Gig1/0/12, Gig1/0/13 Gig1/0/14, Gig1/0/15, Gig1/0/16 Gig1/0/17, Gig1/0/18, Gig1/0/19 Gig1/0/20, Gig1/0/21, Gig1/0/22 Gig1/0/23, Gig1/0/24
10	Data	active	Gig1/0/1
11	Voice	active	Gig1/0/1
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	
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	

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

Answer: A

#### NEW QUESTION 35

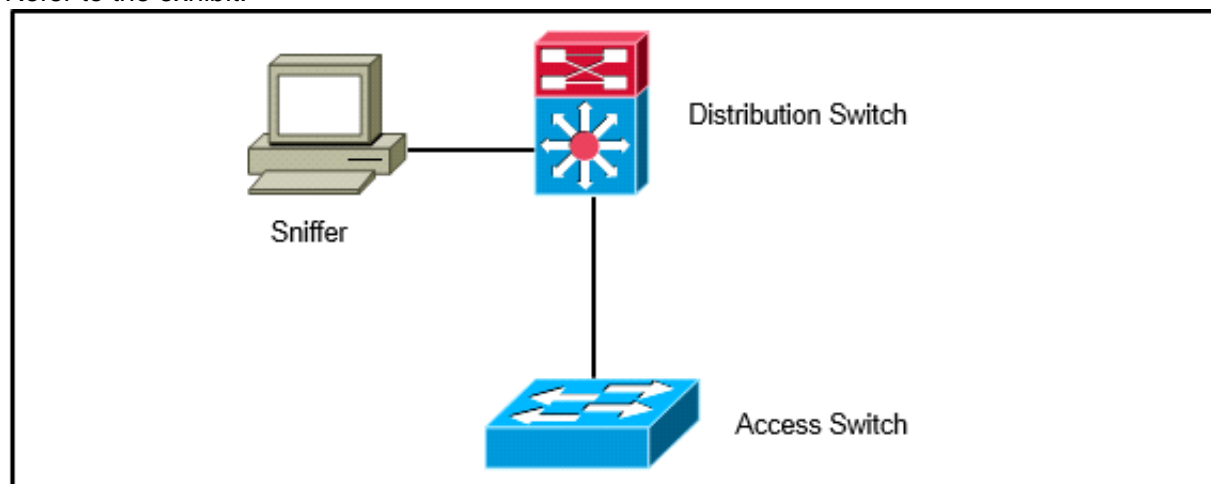
A network engineer must adjust the STP interface attributes to influence root port selection. Which two elements are used to accomplish this? (Choose two.)

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

Answer: AB

#### NEW QUESTION 37

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 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 43

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 46

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 48

Refer to the exhibit.

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

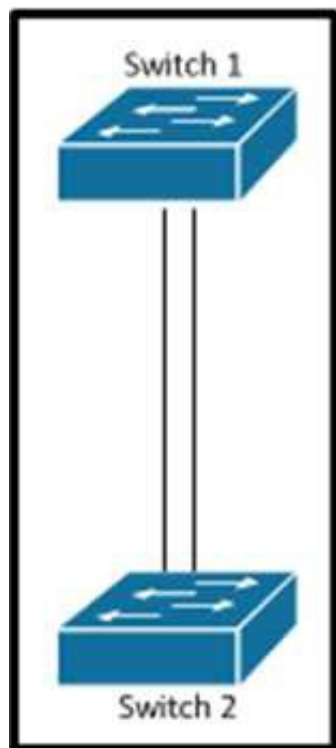
How many bytes are added to each frame as a result of the configuration?

- 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 52

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 54

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 59

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 62

Which statement about the UDLD protocol is true?

- A. UDLD is a Cisco-proprietary Layer 2 protocol that enables devices to monitor the physical status of links and detect unidirectional failures.
- B. UDLD is a Cisco-proprietary Layer 2 protocol that enables devices to advertise their identity, capabilities, and neighbors on a local area network.
- C. UDLD is a standardized Layer 2 protocol that enables devices to monitor the physical status of links and detect unidirectional failures.
- D. UDLD is a standardized Layer 2 protocol that enables devices to advertise their identity, capabilities, and neighbors on a local area network.

**Answer:** A

#### NEW QUESTION 65

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 69



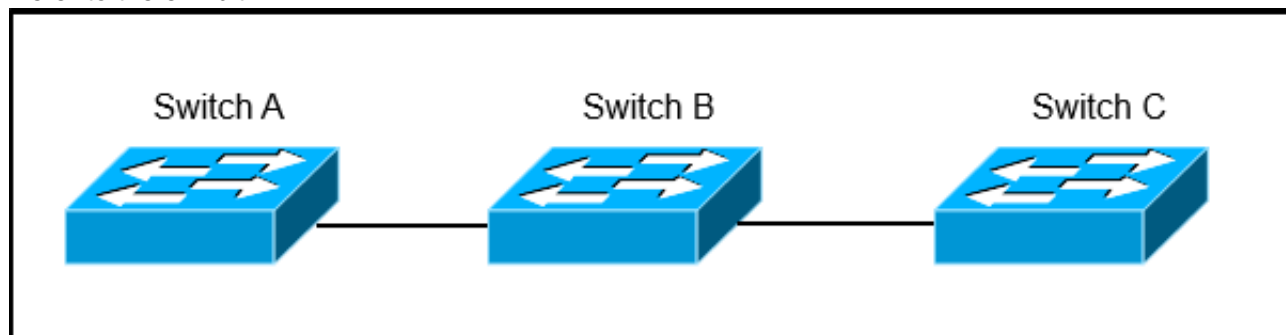
After the implementation of several different types of switches from different vendors, a network engineer notices that directly connected devices that use Cisco Discovery Protocol are not visible. Which vendor-neutral protocol could be used to resolve this issue?

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

**Answer: B**

#### NEW QUESTION 74

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 79

Refer to the exhibit.

```

Company A# show vtp status

VTP Version                : 2
Configuration Revision      : 0
Maximum VLANs supported locally: 1005
Number of existing VLANs    : 9
VTP Operating Mode          : Server
VTP Domain Name             : company
VTP Pruning Mode            : Disabled
VTP V2 Mode                 : Disabled
VTP Traps Generation        : Disabled

Company B# show vtp status

VTP Version                : 2
Configuration Revision      : 2
Maximum VLANs supported locally: 1005
Number of existing VLANs    : 42
VTP Operating Mode          : Server
VTP Domain Name             : company
VTP Pruning Mode            : Disabled
VTP V2 Mode                 : Disabled
VTP Traps Generation        : Disable
  
```

The network switches for two companies have been connected and manually configured for the required VLANs, but users in company A are not able to access network resources in company B when DTP is enabled. Which action resolves this problem?

- A. Delete vlan.dat and ensure that the switch with lowest MAC address is the VTP server.
- B. Disable DTP and document the VTP domain mismatch.
- C. Manually force trunking with switchport mode trunk on both switches.
- D. Enable the company B switch with the vtp mode server command.

**Answer:** C

#### NEW QUESTION 83

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

**Answer:** A

#### NEW QUESTION 86

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 90

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 95

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 100

Refer to the exhibit.

```
interface GigabitEthernet0/1
 switchport
 switchport mode trunk
 switchport trunk allowed vlan 1-100
!
interface GigabitEthernet0/48
 switchport
 switchport mode access
!
monitor session 1 source interface GigabitEthernet0/1
monitor session 1 destination interface GigabitEthernet0/48
```

How can the traffic that is mirrored out the GigabitEthernet0/48 port be limited to only traffic that is received or transmitted in VLAN 10 on the GigabitEthernet0/1 port?

- A. Change the configuration for GigabitEthernet0/48 so that it is a member of VLAN 10.
- B. Add an access list to GigabitEthernet0/48 to filter out traffic that is not in VLAN 10.

- C. Apply the monitor session filter globally to allow only traffic from VLAN 10.
- D. Change the monitor session source to VLAN 10 instead of the physical interface.

**Answer:** C

#### NEW QUESTION 104

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

**Answer:** A

#### NEW QUESTION 108

What percentage of bandwidth is reduced when a stack cable is broken?

- A. 25
- B. 50
- C. 75
- D. 100

**Answer:** C

#### NEW QUESTION 113

When you design a switched network using VTPv2, how many VLANs can be used to carry user traffic?

- A. 1000
- B. 1001
- C. 1024
- D. 2048
- E. 4095
- F. 4096

**Answer:** B

#### NEW QUESTION 118

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 121

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 122

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 127

Refer to the exhibit.



```
Switch#sh int g0/12
GigabitEthernet0/23 is up, line protocol is down (monitoring)
  Hardware is C6k 1000Mb 802.3, address is 001c.f9d4.7500 (bia
  001c.f9d4.750)
  MTU 1500 bytes, BW 1000000 Kbit, DLY 10 usec,
    Reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  Full-duplex, 1000Mb/s
```

A network engineer investigates a recent network failure and notices that one of the interfaces on the switch is still down. What is causing the line protocol on this interface to be shown as down?

- A. There is a layer 1 physical issue.
- B. There is a speed mismatch on the interface.
- C. The interface is configured as the target of the SPAN session.
- D. The interface is configured as the source of the SPAN session.
- E. There is a duplex mismatch on the interface.

**Answer:** C

#### NEW QUESTION 128

Which statement about using EtherChannel on Cisco IOS switches is true?

- A. A switch can support up to eight compatibly configured Ethernet interfaces in an EtherChannel
- B. The EtherChannel provides full-duplex bandwidth up to 800 Mbps only for Fast EtherChannel or 8 Gbps only for Gigabit EtherChannel.
- C. A switch can support up to 10 compatibly configured Ethernet interfaces in an EtherChannel
- D. The EtherChannel provides full-duplex bandwidth up to 1000 Mbps only for Fast EtherChannel or 8 Gbps only for Gigabit EtherChannel.
- E. A switch can support up to eight compatibly configured Ethernet interfaces in an EtherChannel
- F. The EtherChannel provides full-duplex bandwidth up to 800 Mbps only for Fast EtherChannel or 16 Gbps only for Gigabit EtherChannel.
- G. A switch can support up to 10 compatibly configured Ethernet interfaces in an EtherChannel
- H. The EtherChannel provides full-duplex bandwidth up to 1000 Mbps only for Fast EtherChannel or 10 Gbps only for Gigabit EtherChannel.

**Answer:** A

#### NEW QUESTION 132

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 133

Refer to the exhibit.

```
SW-1#sh logging
%SPANTREE-SP-2-RECV_PVID_ERR: Received BPDU with inconsistent peer
Vlan id 1 on GigabitEthernet11/2 VLAN2013.
%SPANTREE-SP-2-BLOCK_PVID_PEER: Blocking GigabitEthernet11/2 on
VLAN0001. Inconsistent peer vlan.
```

A multilayer switch has been configured to send and receive encapsulated and tagged frames. VLAN 2013 on the multilayer switch is configured as the native VLAN. Which option is the cause of the spanning-tree error?

- A. VLAN spanning-tree in SW-2 is configured.
- B. spanning-tree bpd-filter is enabled.
- C. 802.1q trunks are on both sides, both with native VLAN mismatch.
- D. VLAN ID 1 should not be used for management traffic because its unsafe.

**Answer:** C

#### NEW QUESTION 136

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 140

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 144

An administrator recently configured all ports for rapid transition using PortFast. After testing, it has been determined that several ports are not transitioning as they should. What is the reason for this?

- A. RSTP has been enabled per interface and not globally.
- B. The STP root bridge selection is forcing key ports to remain in non-rapid transitioning mode.
- C. STP is unable to achieve rapid transition for trunk links.
- D. The switch does not have the processing power to ensure rapid transition for all ports.

**Answer:** C

#### NEW QUESTION 145

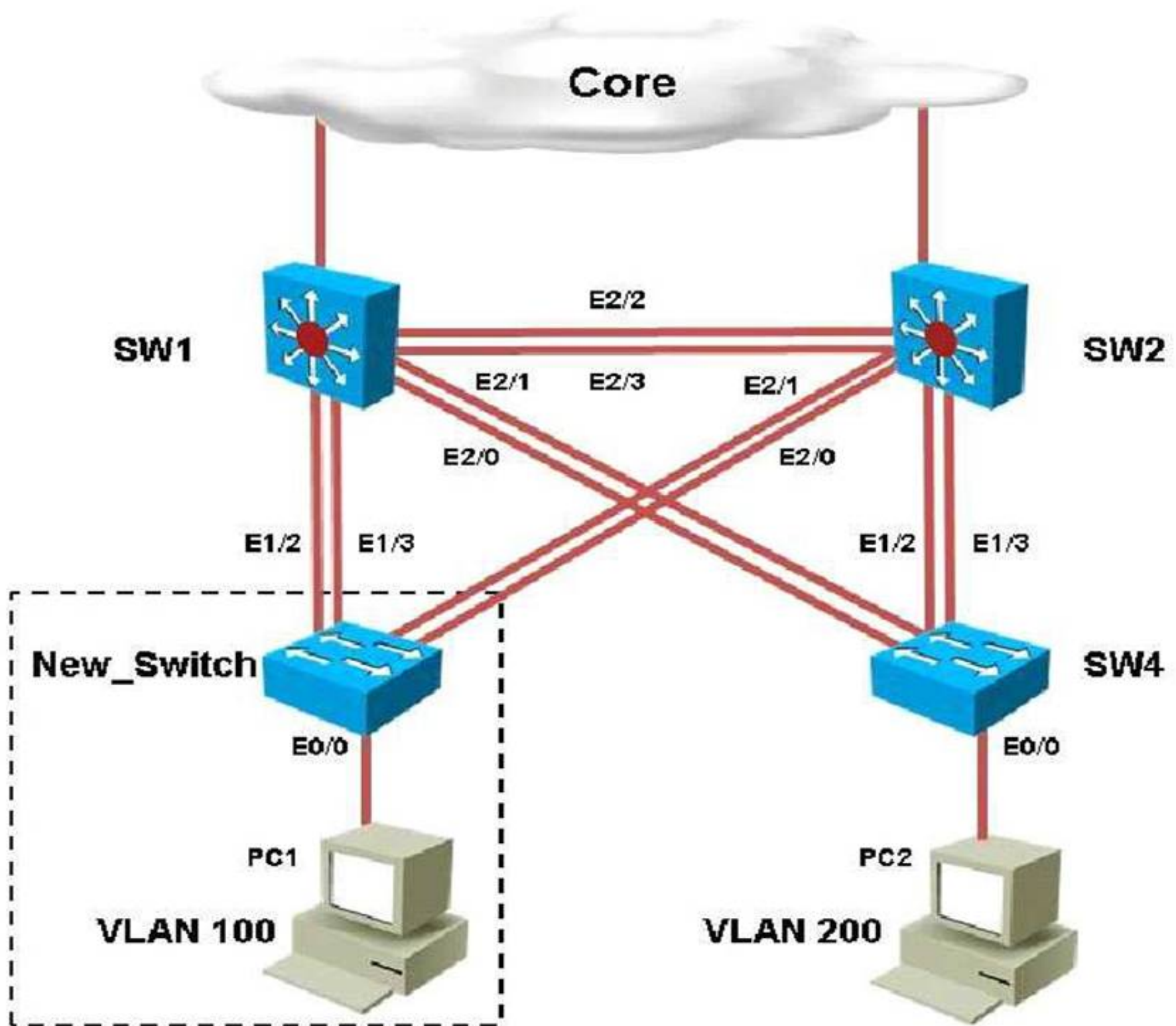
Which statement about restrictions for multichassis LACP is true?

- A. It is available only on a Cisco Catalyst 6500 Series chassis.
- B. It does not support 1Gb links.
- C. Converting a port channel to mLACP can cause a service disruption.
- D. It is not available in VSS.

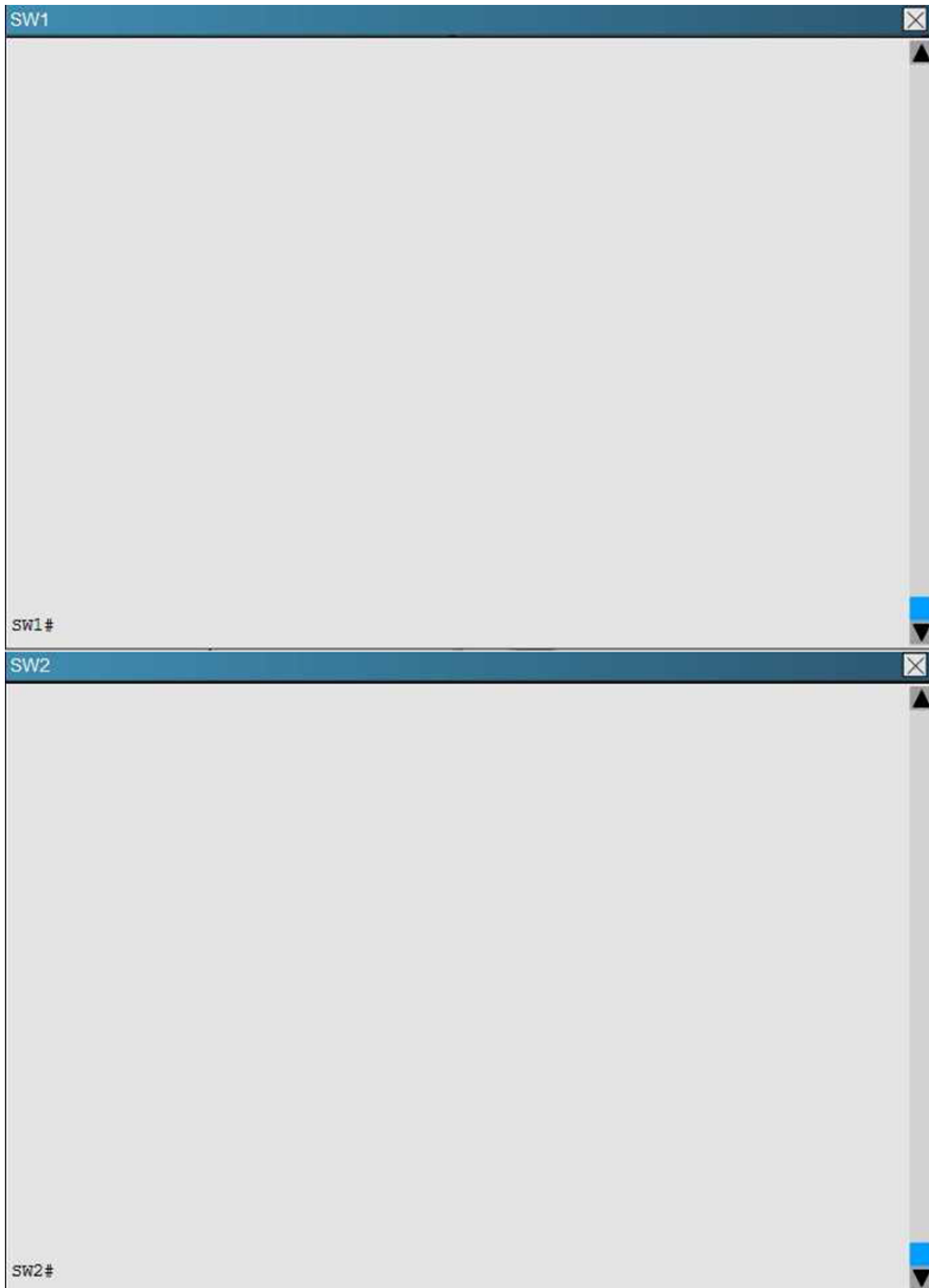
**Answer:** C

#### NEW QUESTION 148

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.







You are connecting the New\_Switch to the LAN topology; the switch has been partially configured and you need to complete the rest of configuration to enable PC1 communication with PC2. Which of the configuration is correct?

- ☐ vtp domain CCNP\_TEST  
vtp password cisco123  
vtp version 3  
vtp mode server  
int e0/0  
switchport mode access  
switchport access vlan 100
- ☐ vtp domain CCNP\_TEST  
vtp password cisco123  
vtp version 3  
vtp mode client  
int e0/0  
switchport mode access  
switchport access vlan 200
- ☐ vtp domain CCNP\_TEST  
vtp password cisco123  
vtp version 2  
vtp mode client  
int e0/0  
switchport mode access  
switchport access vlan 100
- ☐ vtp domain CCNP  
vtp password cisco  
vtp version 3  
vtp mode client  
int e0/0  
switchport mode access  
switchport access vlan 100
- ☐ vtp domain CCNP  
vtp password cisco  
vtp version 2  
vtp mode transparent  
int e0/0  
switchport mode access  
switchport access vlan 200

- A. Option A
- B. Option B
- C. Option C
- D. Option D
- E. Option E

**Answer:** D

**Explanation:** Within any VTP, the VTP domain name must match. So, step one is to find the correct VTP name on the other switches. Logging in to SW1 and using the “show vtp status” command we see this:

```
SW1
SW1#show vtp status
VTP Version capable      : 1 to 3
VTP version running      : 3
VTP Domain Name          : CCNP
VTP Pruning Mode         : Enabled
VTP Traps Generation     : Disabled
Device ID                 : aabb.cc00.2500

Feature VLAN:
-----
VTP Operating Mode       : Server
Number of existing VLANs : 8
Number of existing extended VLANs : 0
Maximum VLANs supported locally : 4096
Configuration Revision   : 11
Primary ID               : aabb.cc00.2b00
Primary Description      : SW1
MD5 digest               : 0xA2 0xFA 0x6E 0x8D 0xD0 0xDE 0x5A 0xEF
                        0xE3 0x65 0x9A 0xF7 0x03 0xBF 0xBA 0x10

Feature MST:
```

So we know that the VTP domain must be CCNP. This leaves only choice D and E. We also see from the topology diagram that eth 0/0 of the new switch connects to a PC in VLNA 100, so we know that this port must be an access port in VLAN 100, leaving only choice D as correct. Note that the VTP versions supported in this network are 1, 2, 3 so either VTP version 2 or 3 can be configured on the new switch.

#### NEW QUESTION 151

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 156

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 161

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 165

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 166

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 171

The network manager has requested that several new VLANs (VLAN 10, 20, and 30) are allowed to traverse the switch trunk interface. After the command switchport trunk allowed vlan 10,20,30 is issued, all other existing VLANs no longer pass traffic over the trunk. What is the root cause of the problem?

- A. The command effectively removed all other working VLANs and replaced them with the new VLANs.
- B. VTP pruning removed all unused VLANs.
- C. ISL was unable to encapsulate more than the already permitted VLANs across the trunk.
- D. Allowing additional VLANs across the trunk introduced a loop in the network.

**Answer:** A

#### NEW QUESTION 172

Refer to the exhibit.

```
Switch1 (config)#vlan 10
VTP vlan configuration not allowed when device is in CLIENT mode.
Switch1#show interfaces trunk
Switch1#
```

The users in an engineering department that connect to the same access switch cannot access the network. The network engineer found that the engineering VLAN is missing from the database. Which action resolves this problem?

- A. Disable VTP pruning and disable 802.1q.
- B. Update the VTP revision number.
- C. Change VTP mode to server and enable 802.1q.
- D. Enable VTP pruning and disable 802.1q.

**Answer:** C

#### NEW QUESTION 174

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 176

##### 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

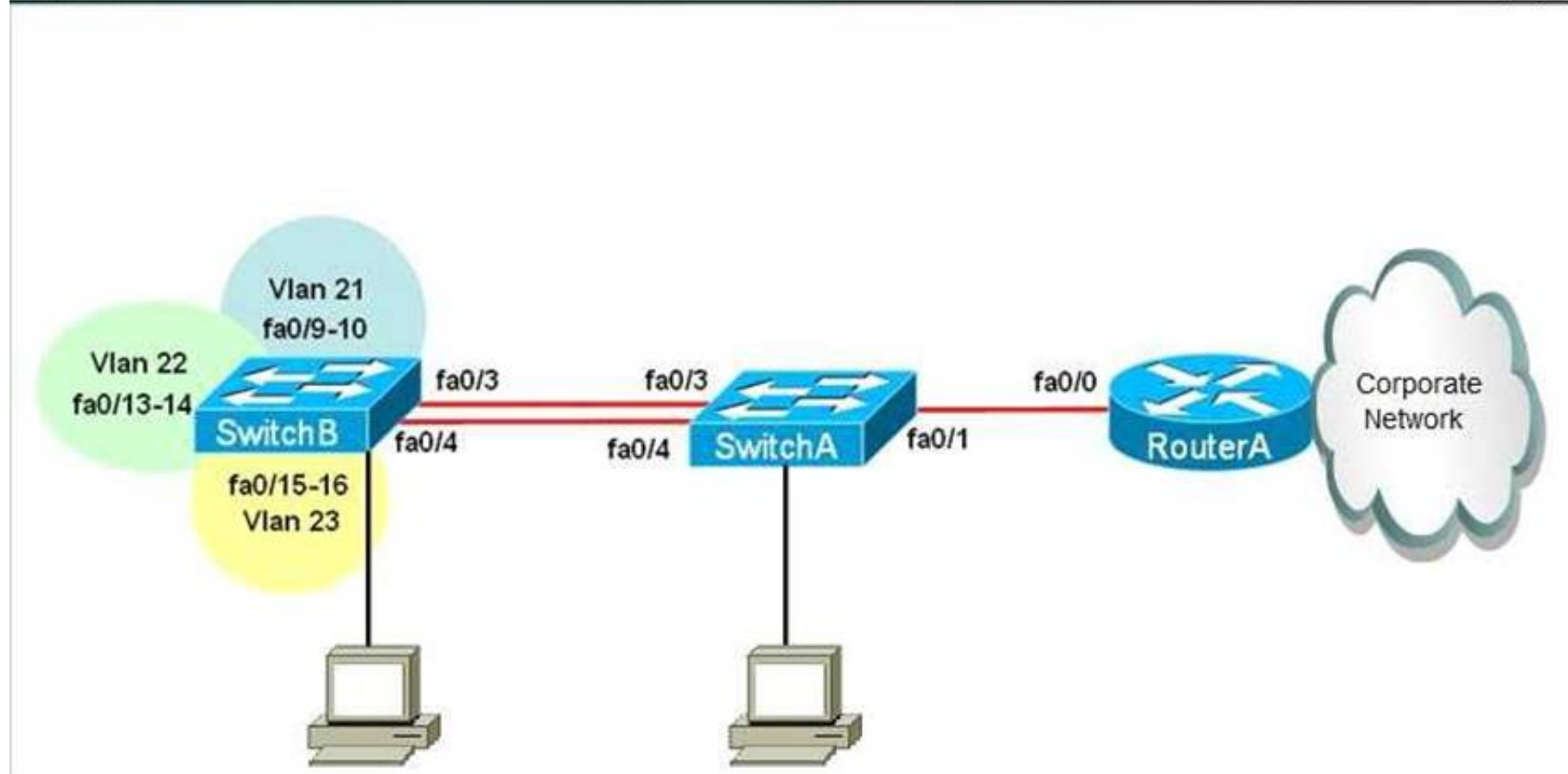
o will support two servers attached to fa0/15 and fa0/16

- 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 Vlans 1, 21, 22 and 23 should 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 178

What is the default HSRP priority?

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

**Answer:** B

#### NEW QUESTION 180

ADHCP configured router is connected directly to a switch that has been provisioned with DHCP snooping. IP Source Guard with the ip verify source port-security command is configured under the interfaces that connect to all DHCP clients on the switch. However, clients are not receiving an IP address via the DHCP server. Which option is the cause of this issue?

- A. The DHCP server does not support information option 82.
- B. The DHCP client interfaces have storm control configured.
- C. Static DHCP bindings are not configured on the switch.
- D. DHCP snooping must be enabled on all VLANs, even if they are not utilized for dynamic address allocation.

**Answer:** A

#### NEW QUESTION 185

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 186

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 188

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 190

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 195

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

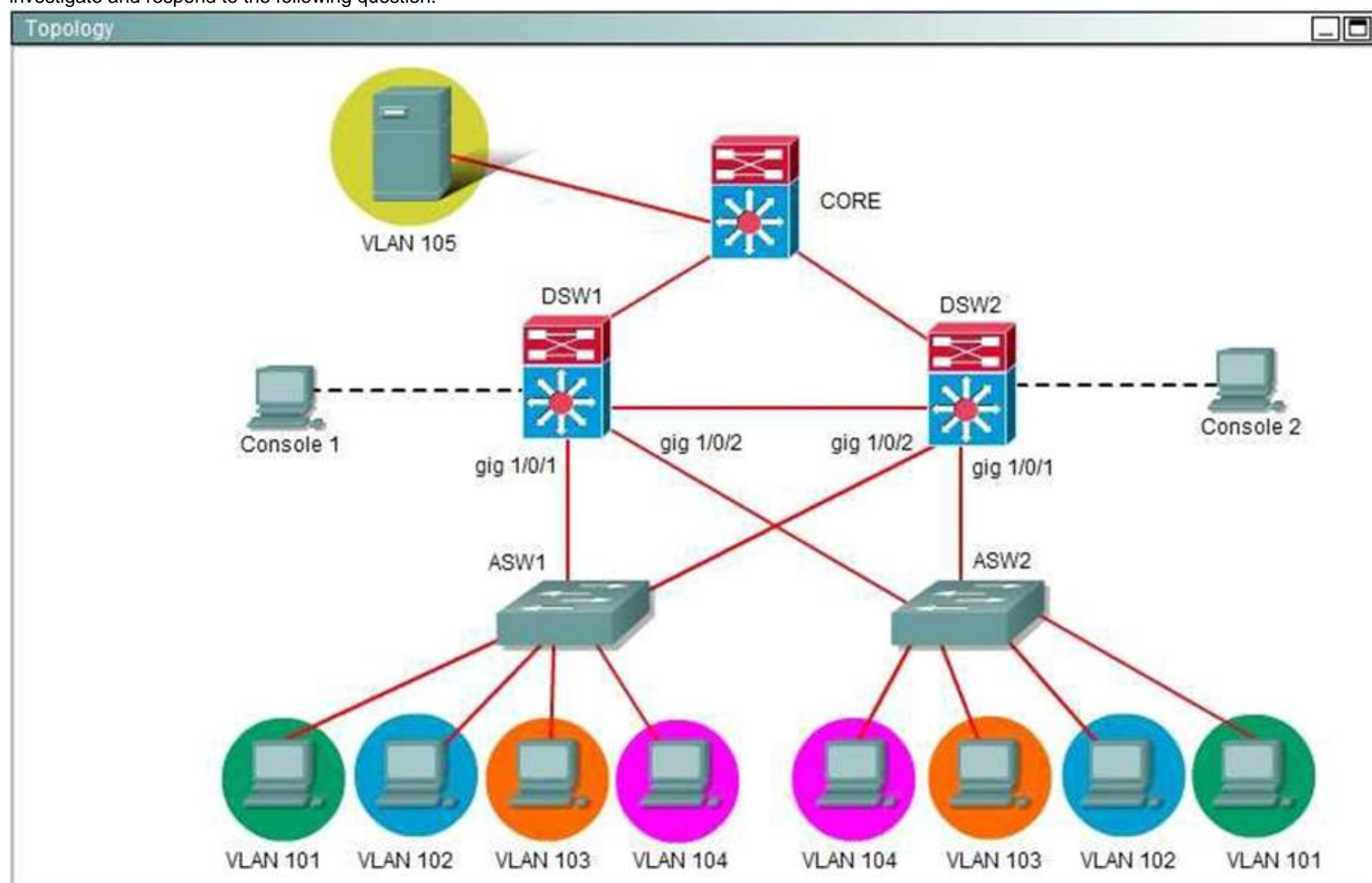
- A. storm control
- B. port security
- C. VTP pruning
- D. VLAN trunking

Answer: A

#### NEW QUESTION 199

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 204

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
```

Which login credentials are required when connecting to the console port in this output?

- A. none required
- B. username cisco with password cisco
- C. no username with password linepass
- D. login authentication default

**Answer:** A

#### NEW QUESTION 206

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 208

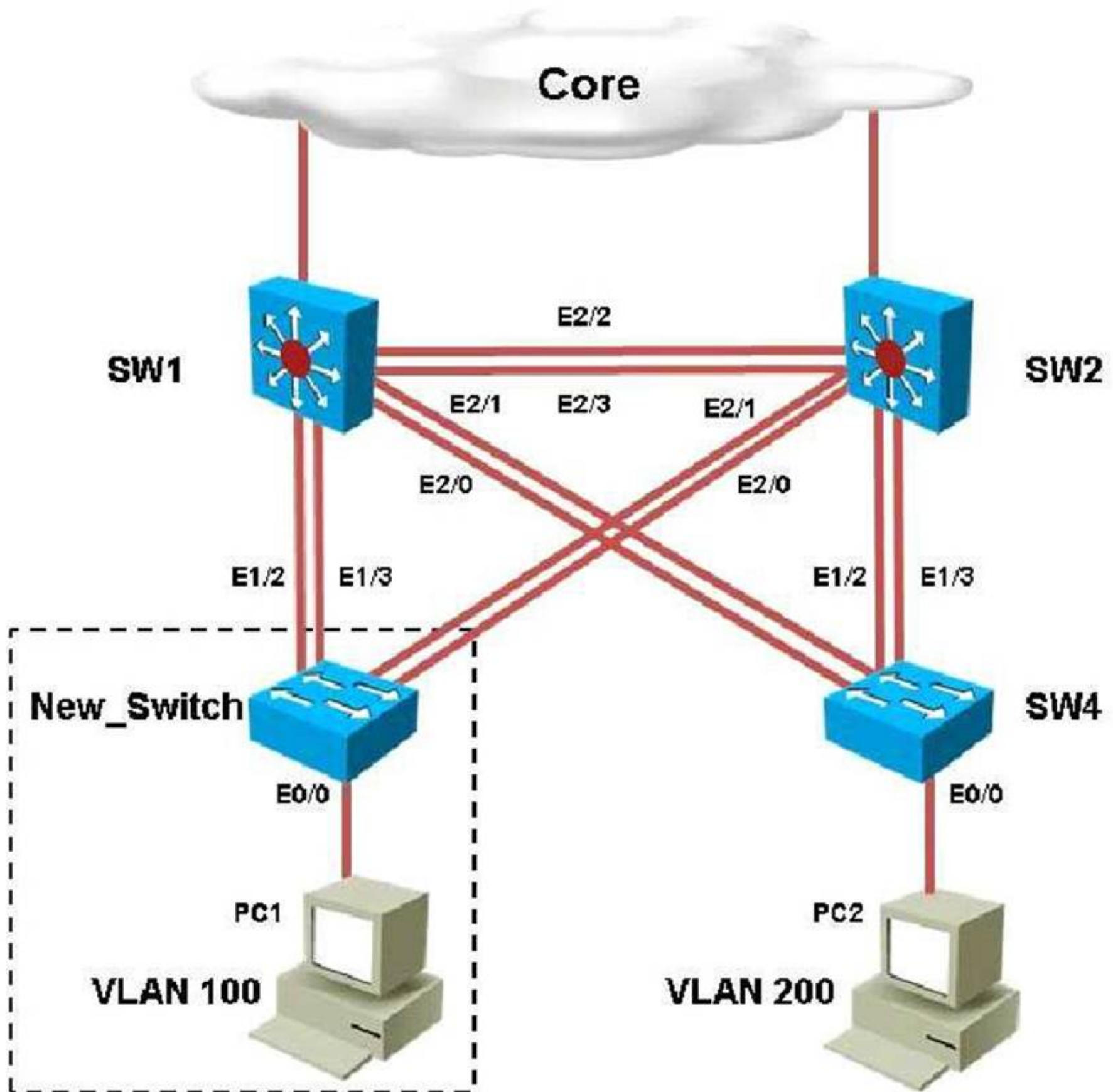
Interfaces are assigned to a VLAN, and then the VLAN is deleted. Which state are these interfaces in after the VLAN is deleted?

- A. They remain up, but they are reassigned to the default VLAN.
- B. They go down until they are reassigned to a VLAN.
- C. They go down, but they are reassigned to the default VLAN.
- D. They remain up, but they are reassigned to the native VLAN.

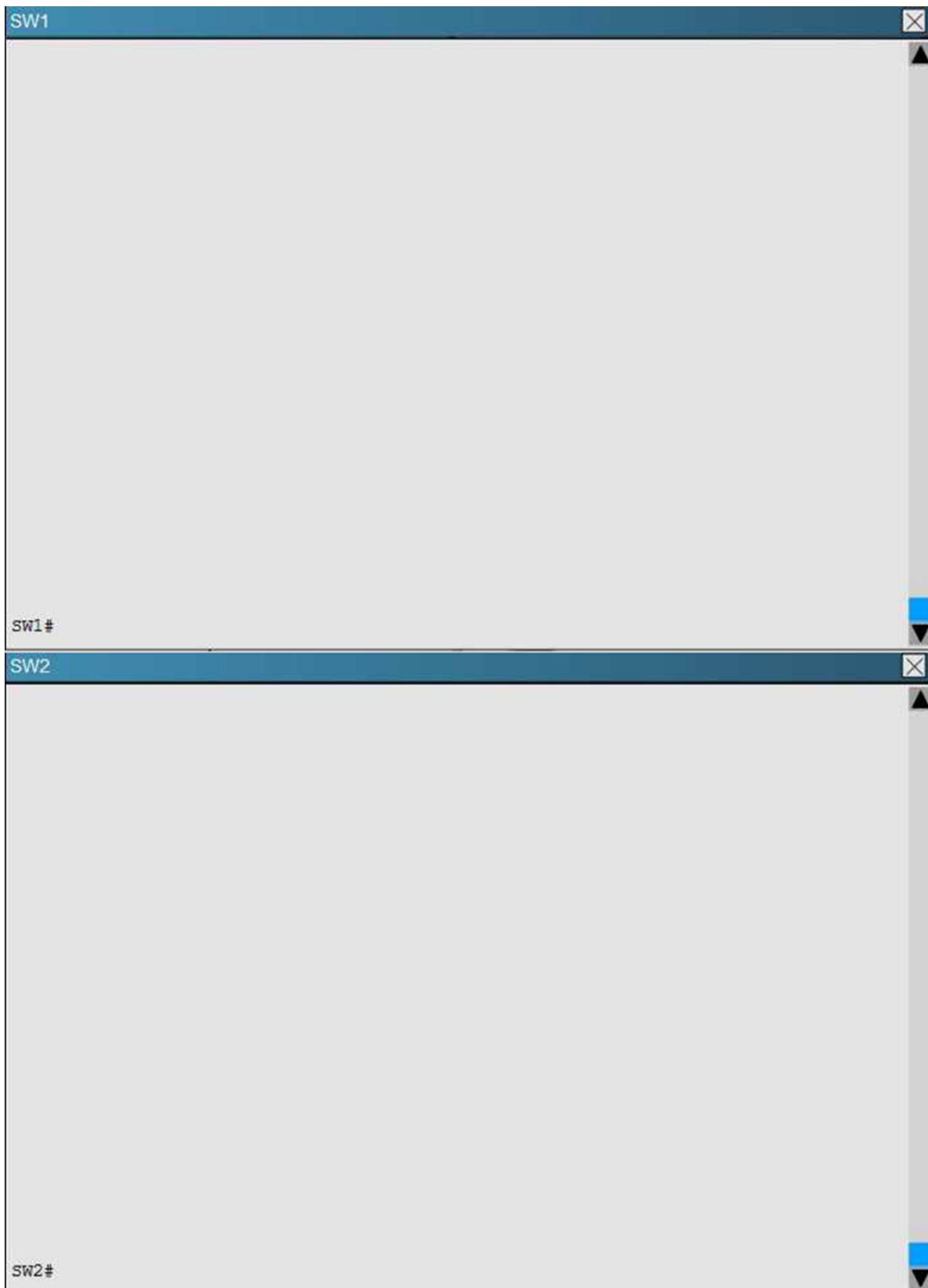
**Answer:** B

#### NEW QUESTION 212

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.







You are adding new VLANs. VLAN500 and VLAN600 to the topology in such way that you need to configure SW1 as primary root for VLAN 500 and secondary for VLAN 600 and SW2 as primary root for VLAN 600 and secondary for VLAN 500. Which configuration step is valid?

- A. Configure VLAN 500 & VLAN 600 on both SW1 & SW2
- B. Configure VLAN 500 and VLAN 600 on SW1 only
- C. Configure VLAN 500 and VLAN 600 on SW2 only
- D. Configure VLAN 500 and VLAN 600 on SW1 ,SW2 and SW4
- E. On SW2; configure vtp mode as off and configure VLAN 500 and VLAN 600; configure back to vtp server mode.

**Answer:** A

**Explanation:** By issuing the “show vtp status command on SW2, SW2, and SW4 we see that both SW1 and SW2 are operating in VTP server mode, but SW4 is a client, so we will need to add both VLANs to SW1 and SW2.

## SW1

```
SW1#show vtp status
VTP Version capable      : 1 to 3
VTP version running     : 3
VTP Domain Name         : CCNP
VTP Pruning Mode        : Enabled
VTP Traps Generation    : Disabled
Device ID               : aabb.cc00.2500

Feature VLAN:
-----
VTP Operating Mode      : Server
Number of existing VLANs : 8
Number of existing extended VLANs : 0
Maximum VLANs supported locally : 4096
Configuration Revision  : 11
Primary ID              : aabb.cc00.2b00
Primary Description     : SW1
MD5 digest              : 0xA2 0xFA 0x6E 0x8D 0xD0 0xDE 0x5A 0xEF
                        0xE3 0x65 0x9A 0xF7 0x03 0xBF 0xBA 0x10
```

### NEW QUESTION 217

DHCP snooping and IP Source Guard have been configured on a switch that connects to several client workstations. The IP address of one of the workstations does not match any entries found in the DHCP binding database. Which statement describes the outcome of this scenario?

- A. Packets from the workstation will be rate limited according to the default values set on the switch.
- B. The interface that is connected to the workstation in question will be put into the errdisabled state.
- C. Traffic will pass accordingly after the new IP address is populated into the binding database.
- D. The packets originating from the workstation are assumed to be spoofed and will be discarded.

**Answer:** D

### NEW QUESTION 218

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 221

Which First Hop Redundancy Protocol is an IEEE Standard?

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

**Answer:** C

### NEW QUESTION 225

Which configuration command ties the router hot standby priority to the availability of its interfaces?

- A. standby group
- B. standby priority
- C. backup interface
- D. standby track

**Answer:** D

#### NEW QUESTION 226

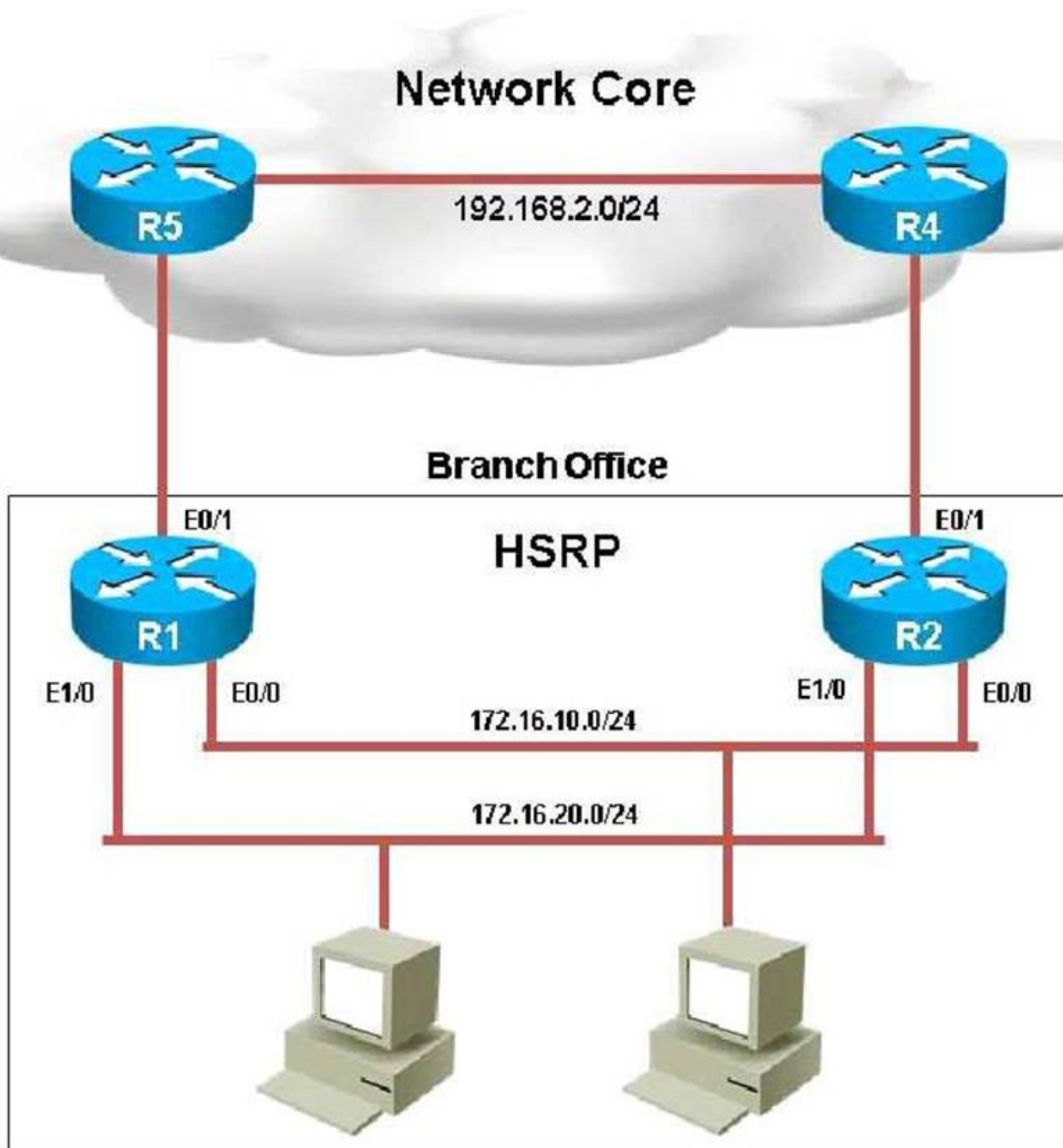
The network monitoring application alerts a network engineer of a client PC that is acting as a rogue DHCP server. Which two commands help trace this PC when the MAC address is known? (Choose two.)

- 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>

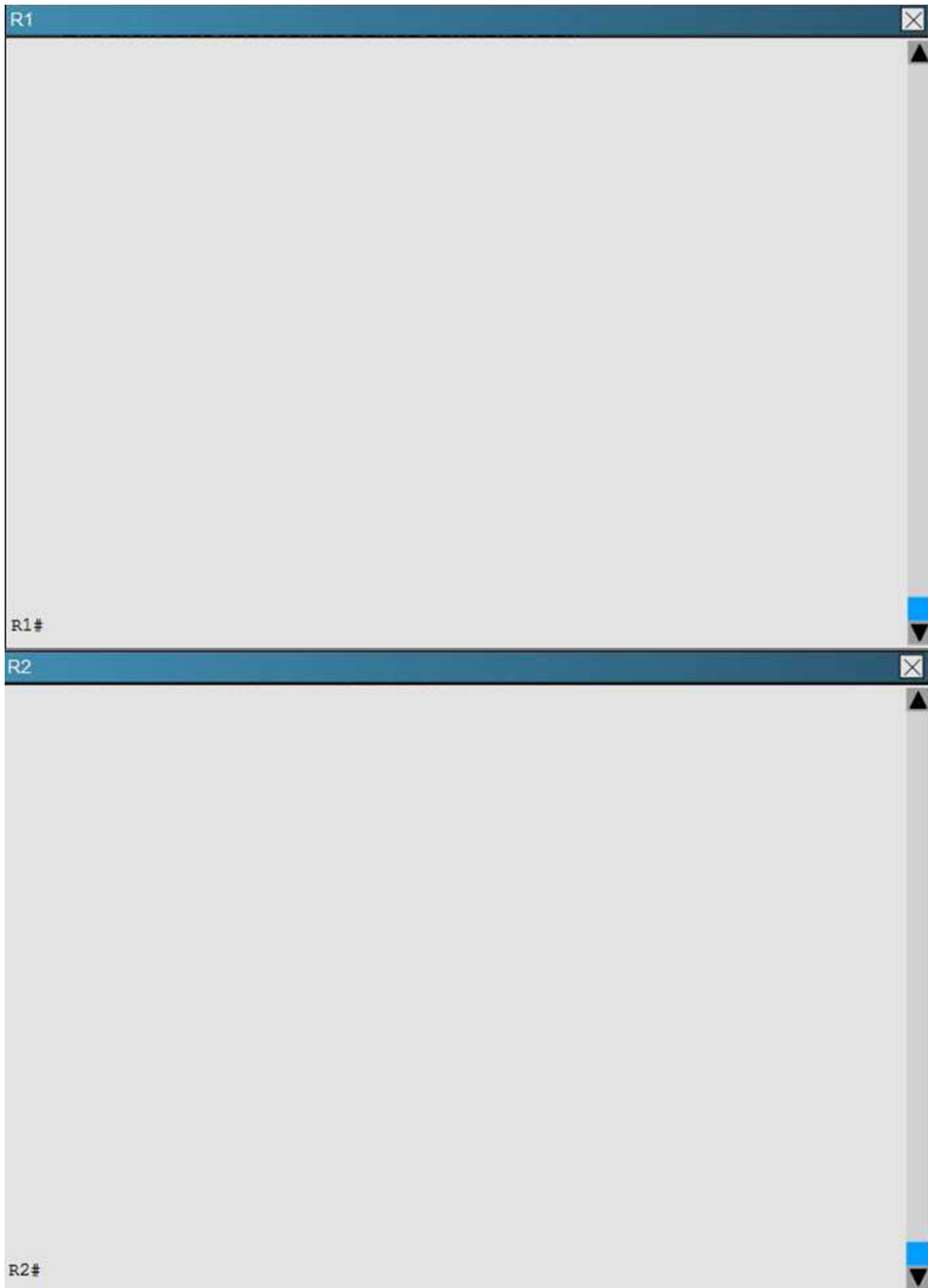
Answer: AE

#### NEW QUESTION 228

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 233

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 238

Which option is a benefit of using VSS?

- A. reduces cost
- B. simplifies configuration
- C. provides two independent supervisors with two different control planes
- D. removes the need for a First Hop Redundancy Protocol

**Answer:** D

#### NEW QUESTION 242

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 244

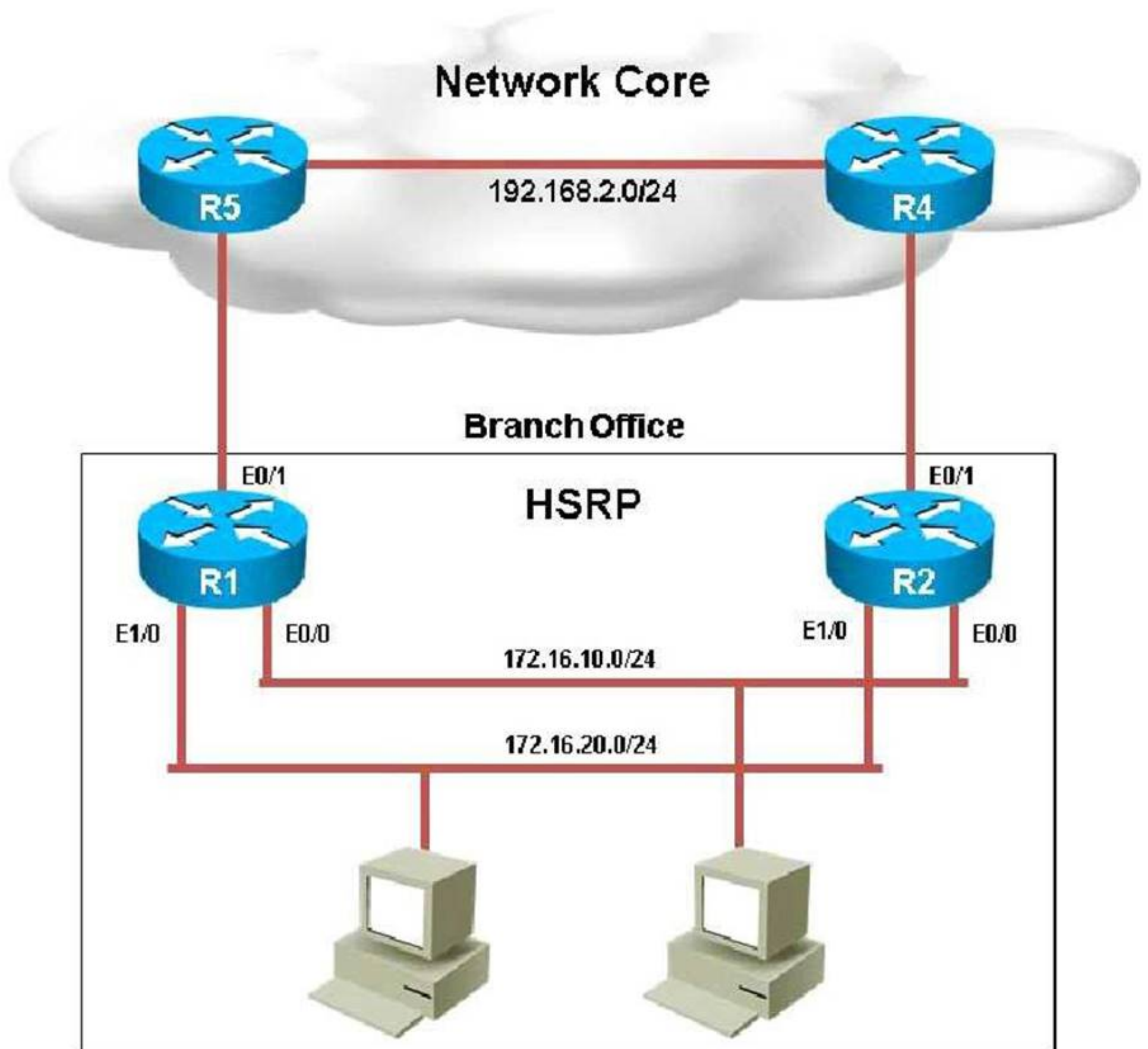
Which private VLAN can have only one VLAN and be a secondary VLAN that carries unidirectional traffic upstream from the hosts toward the promiscuous ports and the gateway?

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

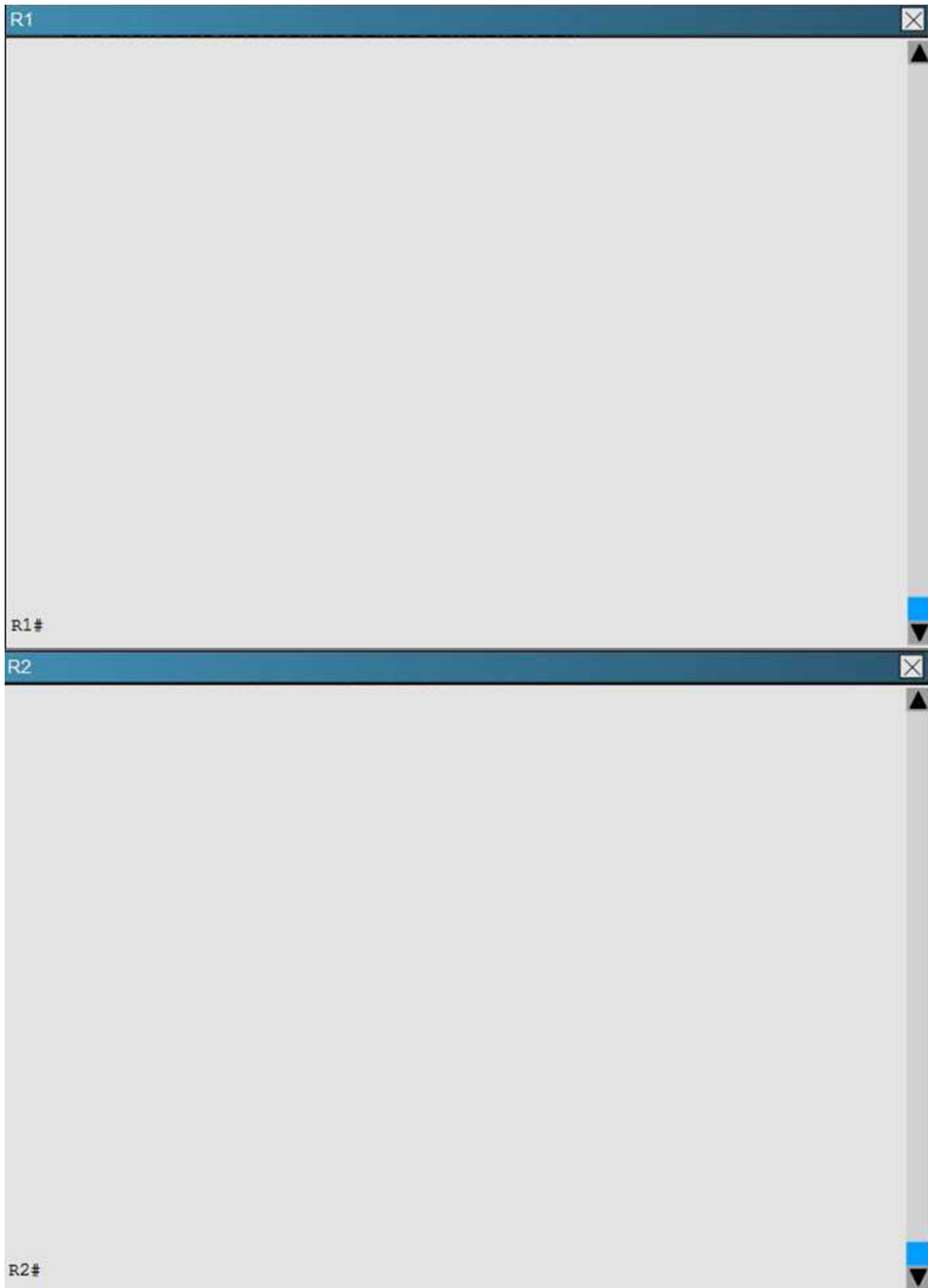
**Answer:** A

#### NEW QUESTION 249

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%

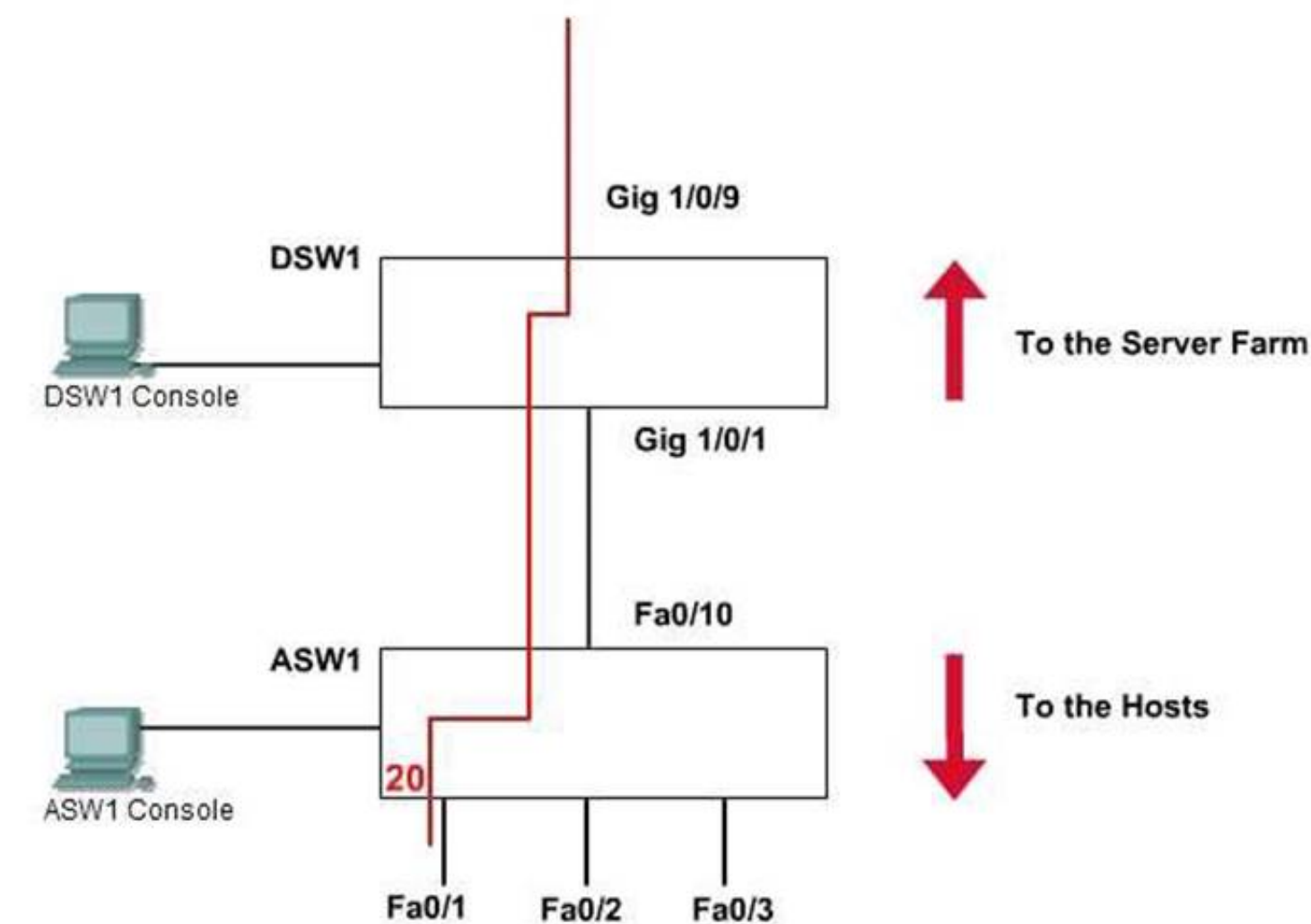
**Answer: D**

**NEW QUESTION 251**

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 port 0/1 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 252

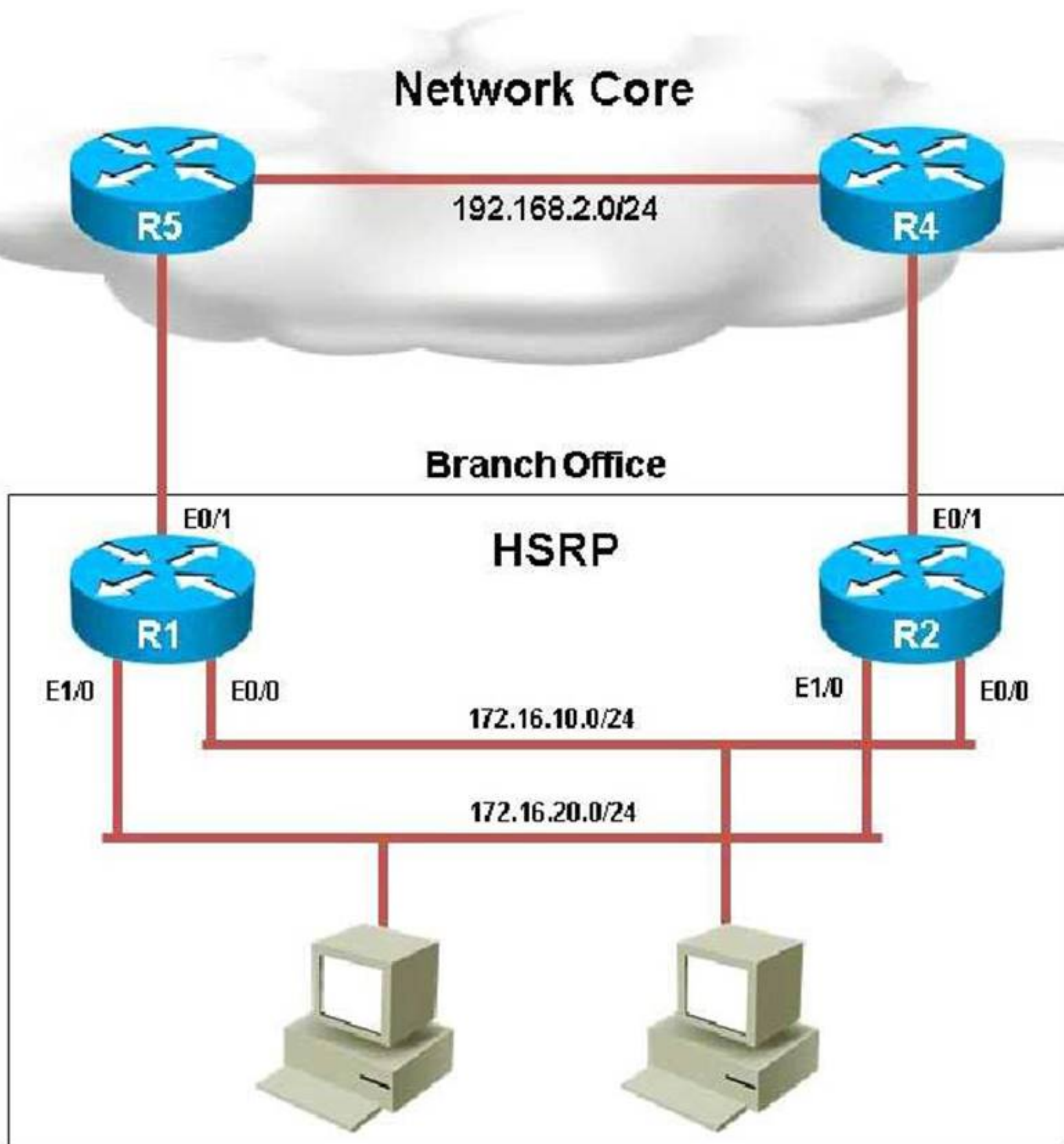
Which feature is automatically configured when an administrator enables a voice VLAN?

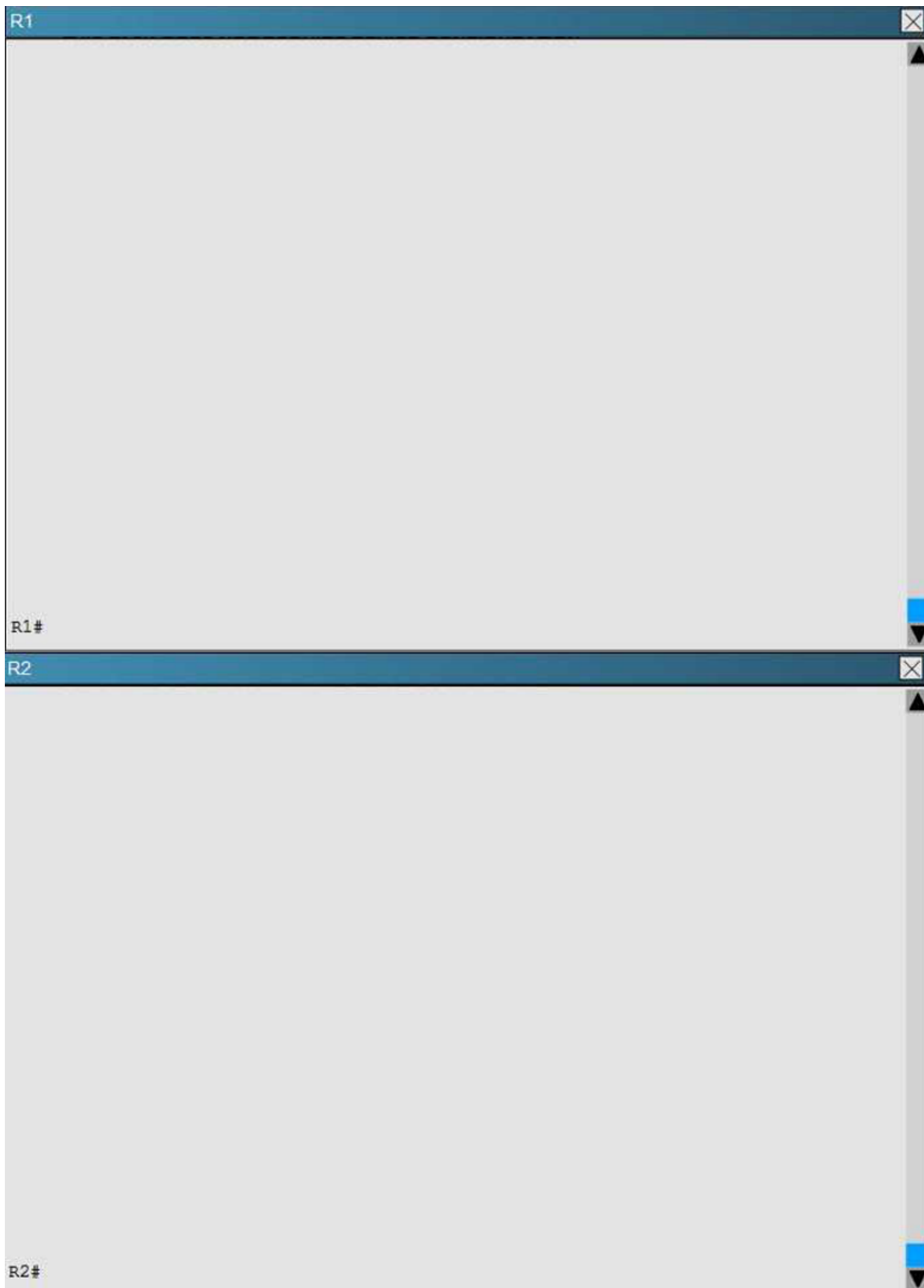
- A. 802.1Q trunking
- B. PortFast
- C. QoS
- D. private VLANs

**Answer:** B

#### 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.





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 260

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 265

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 266

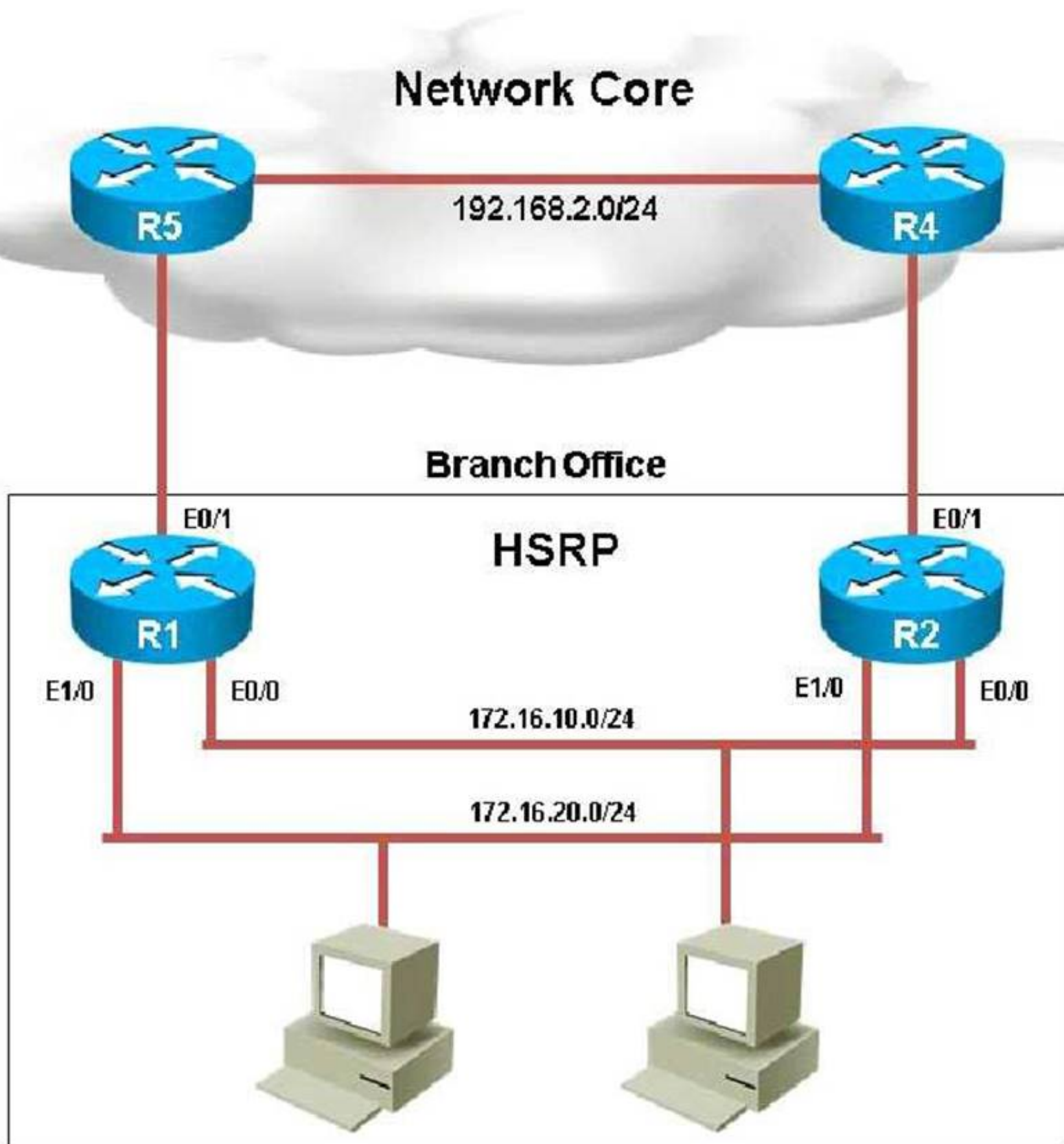
The command storm-control broadcast level 75 65 is configured under the switch port connected to the corporate mail server. In which three ways does this command impact the traffic? (Choose three.)

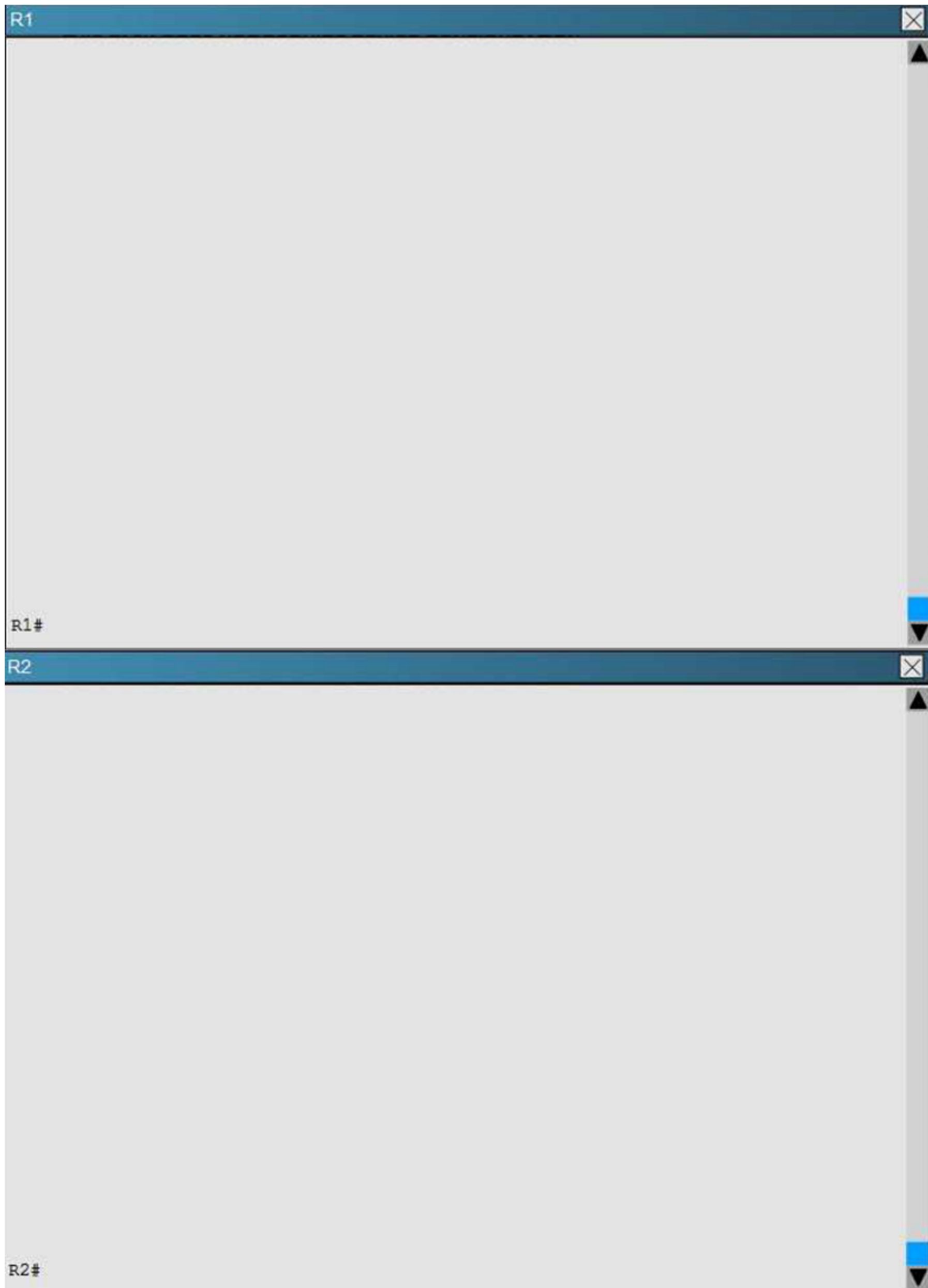
- A. SNMP traps are sent by default when broadcast traffic reaches 65% of the lower-level threshold.
- B. The switchport is disabled when unicast traffic reaches 75% of the total interface bandwidth.
- C. The switch resumes forwarding broadcasts when they are below 65% of bandwidth.
- D. Only broadcast traffic is limited by this particular storm control configuration.
- E. Multicast traffic is dropped at 65% and broadcast traffic is dropped at 75% of the total interface bandwidth.
- F. The switch drops broadcasts when they reach 75% of bandwidth.

**Answer:** CDF

#### NEW QUESTION 267

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.





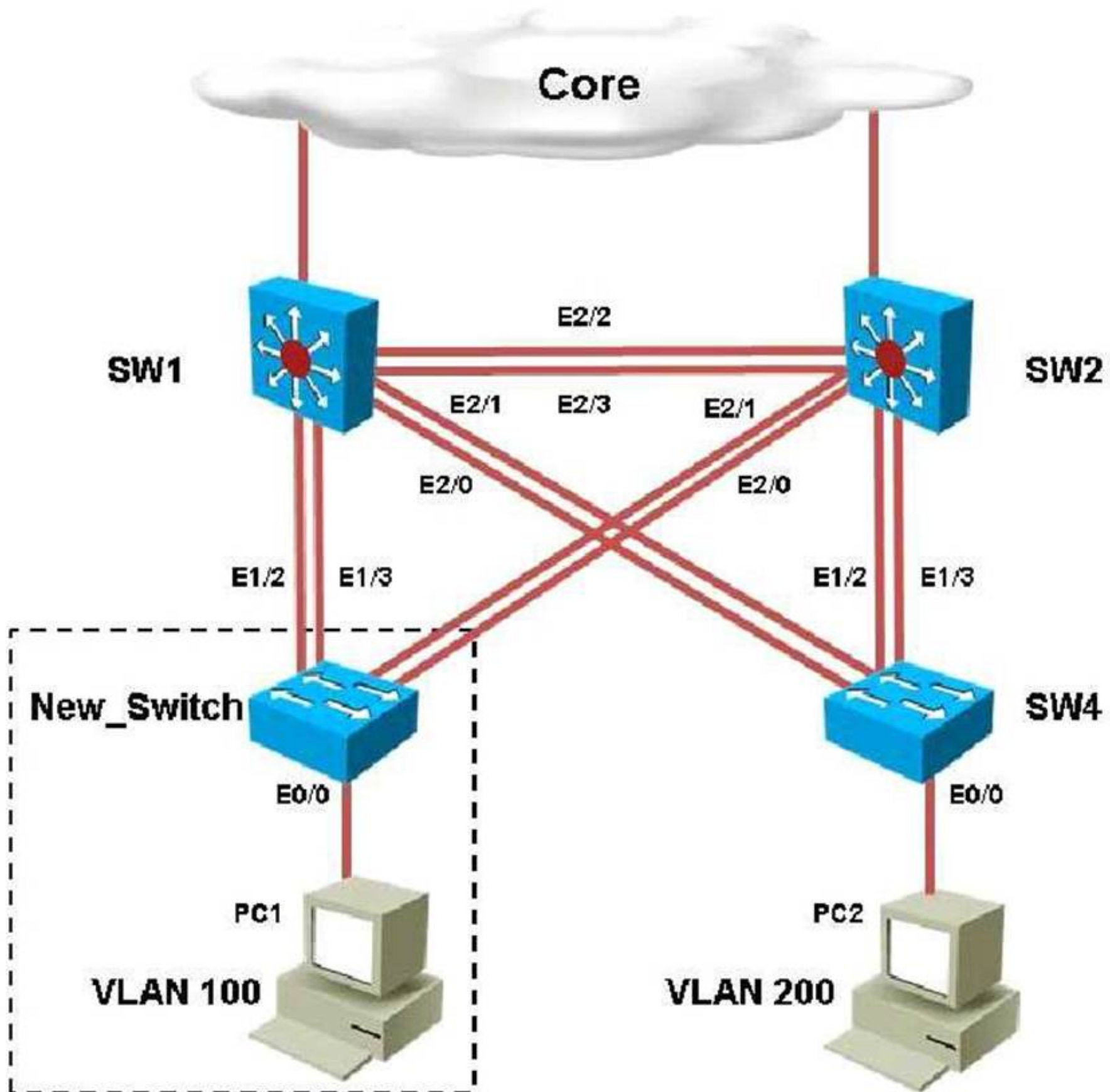
What is the virtual mac-address of HSRP group 1?

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

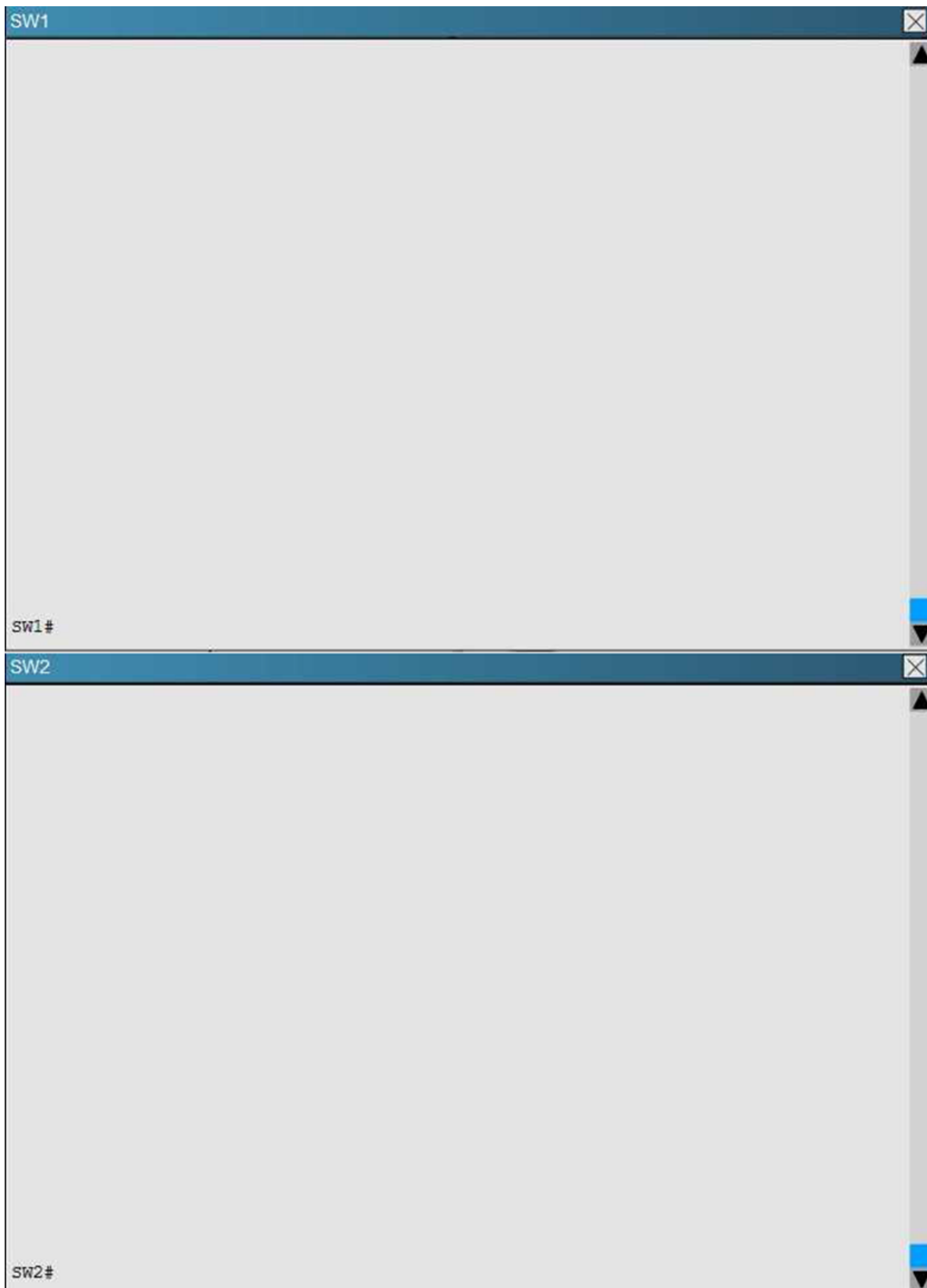
**Answer:** B

**NEW QUESTION 268**

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.







Examine the VTP configuration. You are required to configure private VLANs for a new server deployment connecting to the SW4 switch. Which of the following configuration steps will allow creating private VLANs?

- A. Disable VTP pruning on SW1 only
- B. Disable VTP pruning on SW2 only
- C. Disable VTP pruning on SW4 only

- D. Disable VTP pruning on SW2, SW4 and New\_Switch
- E. Disable VTP pruning on New\_Switch and SW4 only.

**Answer:** C

**Explanation:** To create private VLANs, you will need to only disable pruning on the switch that contains the private VLANs. In this case, only SW4 will connect to servers in a private VLAN.

#### NEW QUESTION 269

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 271

Enablement of which feature puts the port into err-disabled state when the port has PortFast enabled and it receives BPDUs?

- A. BPDU filtering
- B. BackboneFast
- C. EtherChannel
- D. BPDU guard

**Answer:** D

#### NEW QUESTION 273

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 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 280

Which command configures an HSRP group to become a slave of another HSRP group?

- A. standby slave
- B. standby group track
- C. standby follow
- D. standby group backup

**Answer:** C

#### NEW QUESTION 284

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 288

Which VRRP router is responsible for forwarding packets that are sent to the IP addresses of the virtual router?

- A. virtual router master
- B. virtual router backup
- C. virtual router active
- D. virtual router standby

**Answer:** A

**Explanation:** Topic 3, Exam Set C

#### NEW QUESTION 289

In which two ways are IEEE STP BPDUs forwarded if VLAN 99 is configured as native? (Choose two )

- A. VLAN 1 STP BPDUs are sent tagged on VLAN 1
- B. VLAN 1 STP BPDUs are sent tagged on VLAN 99
- C. VLAN 1 and VLAN 99 BPDUs are sent tagged on VLAN 1
- D. VLAN 1 STP BPDUs are sent untagged on VLAN 1
- E. VLAN 1 STP BPDUs are sent untagged on VLAN 99

**Answer:** DE

#### NEW QUESTION 294

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 296

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

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

**Answer:** A

#### NEW QUESTION 299

How does VTP pruning enhance network bandwidth?

- A. by restricting unicast traffic across VTP domains
- B. by reducing unnecessary flooding of traffic to inactive VLANs
- C. by limiting the spreading of VLAN information
- D. by disabling periodic VTP updates

**Answer:** B

#### NEW QUESTION 304

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 305

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 309

Which two actions can be configured for storm control violation?

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

**Answer:** AB

#### NEW QUESTION 313

A physical switch port is part of an EtherChannel group. What happens while the same port configured as a SPAN destination?

- A. The port forwards traffic in the EtherChannel group and acts as a SPAN source simultaneously.
- B. The port is removed from the EtherChannel group.
- C. The port is put in the errdisabled state and can only be reenabled manually.
- D. The operation is not allowed as an EtherChannel member cannot be a SPAN source port.

**Answer:** B

#### NEW QUESTION 318

Refer to the exhibit. What is the result of setting GLBP weighting at 105 with lower threshold 90 and upper threshold 100 on this router?

```
Router# show glbp FastEthernet0/1 1
FastEthernet0/1 - Group 1

State is Listen
 64 state changes, last state change 00:00:54
virtual IP address is 10.1.0.7
Hello time 50 msec, hold time 200 msec
Next hello sent in 0.030 secs
Redirect time 600 sec, forwarder time-out 14400 sec
Authentication text "authword"
Preemption enabled, min delay 0 sec
Active is 10.1.0.2, priority 105 (expires in 0.184 sec)
Standby is 10.1.0.3, priority 100 (expires in 0.176 sec)
Priority 96 (configured)
Weighting 105 (configured 105), thresholds: lower 90, upper 100
Track object 1 state Up decrement 10
Track object 2 state Up decrement 10
Load balancing: round-robin
IP redundancy name is "glbp1"
Group members:
 0004.4d83.4801 (10.0.0.0)
 0010.7b5a.fa41 (10.0.0.1)
 00d0.bbd3.bc21 (10.0.0.2) local
```

- A. Only if both tracked objects are up will this router will be available as an AVF for group 1.
- B. Only if the state of both tracked objects goes down will this router release its status as an AVF for group 1.
- C. If both tracked objects go down and then one comes up, but the other remains down, this router will be available as an AVF for group 1.
- D. This configuration is incorrect and will not have any effect on GLBP operation.
- E. If the state of one tracked object goes down then this router will release its status as an AVF for group 1.

**Answer:** B

#### NEW QUESTION 320

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

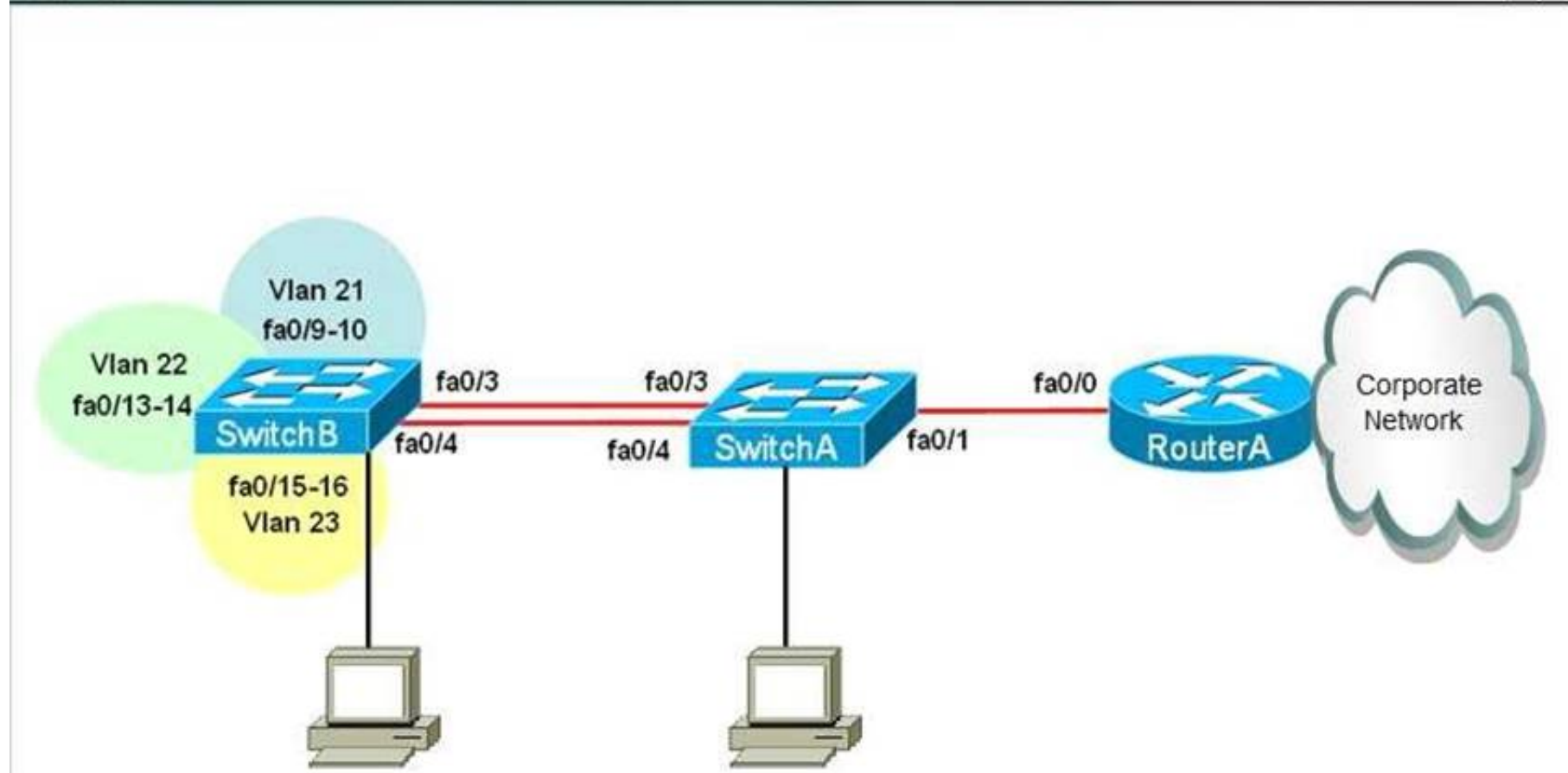


- Vlan 23
  - o Name: Engineering
  - o will support two servers attached to fa0/15 and fa0/16
- Access ports that connect to server should transition immediately to forwarding state upon detecting the connection of a device.
- SwitchB VTP mode needs to be the same as SwitchA.
- SwitchB must operate 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 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: 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 323

Refer to the exhibit.

(Picture was showing from CLI “show spanning-tree vlan xx” that running on mode rapid-pvst).

If you have a new switch (that runs spanning-tree mode pvst+) connect to the exist switch, which statement is true?

- A. It will not working between two switches
- B. It will work, the new switch will communicate exist switch with PVST+
- C. It will work, the new switch will communicate exist switch with Rapid-PVST
- D. NA

**Answer:** B

#### NEW QUESTION 327

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 are GRE tunnel to transmit captured traffic.

**Answer:** BE

#### NEW QUESTION 330

```
interface GigabitEthernet0/18
 switchport trunk allowed vlan 34,36,519
 switchport mode trunk
end
Switch-2#show vlan
VLAN Name                Status    Ports
-----
1    default                active    Gi0/1, Gi0/2, Gi0/3, Gi0/4,
Gi0/5, Gi0/6, Gi0/7, Gi0/8,
Gi0/9, Gi0/10,
Gi0/11, Gi0/12, Gi0/13, Gi0/14, Gi0/15, Gi0/16
34   VLAN0034                active
36   VLAN0036                active
519  VLAN0519                active
Switch-2#show interfaces trunk
Switch-2#
```

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 332

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.

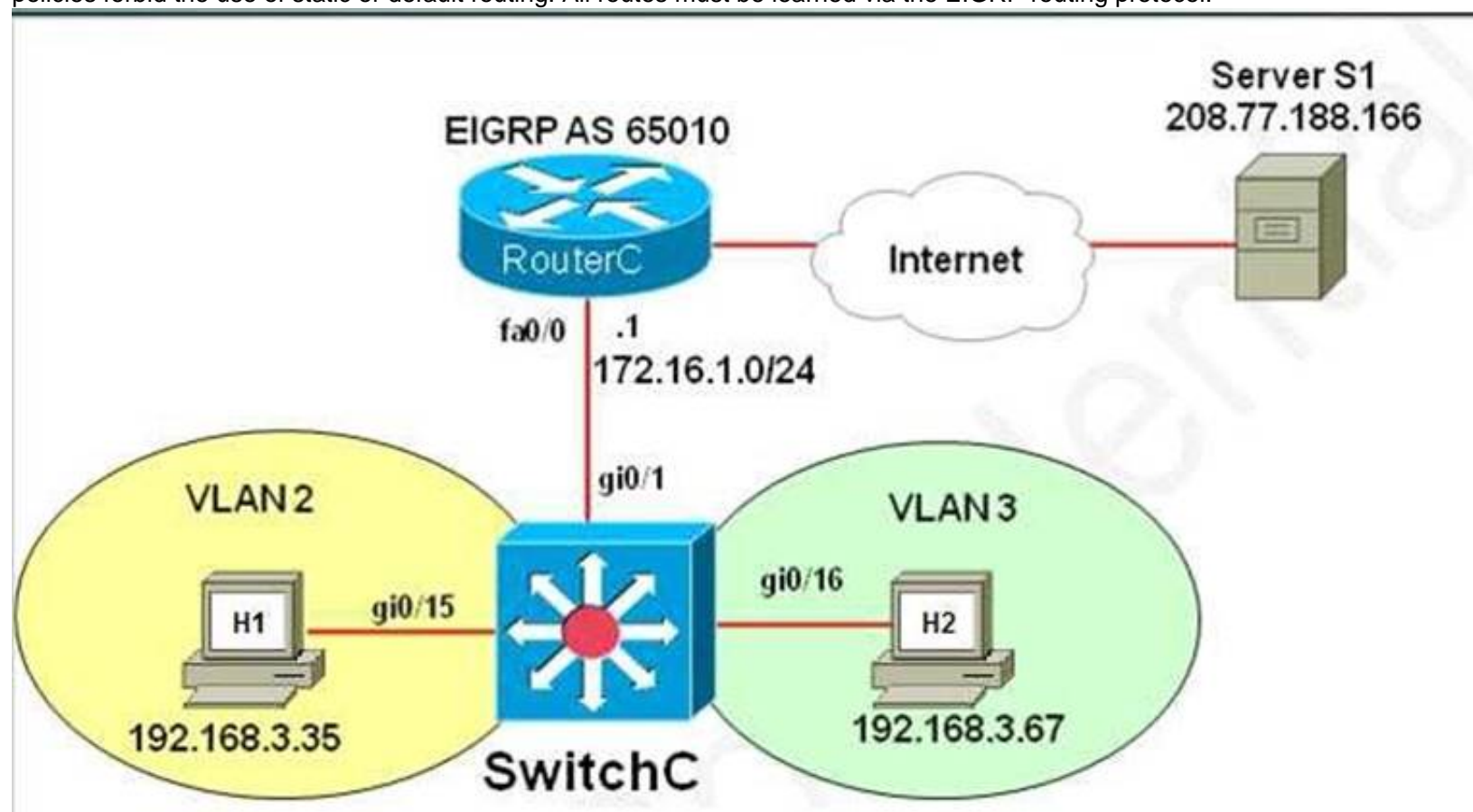
Routed interfaces should use the lowest host on a subnet when possible. The following subnets are available to implement this solution:

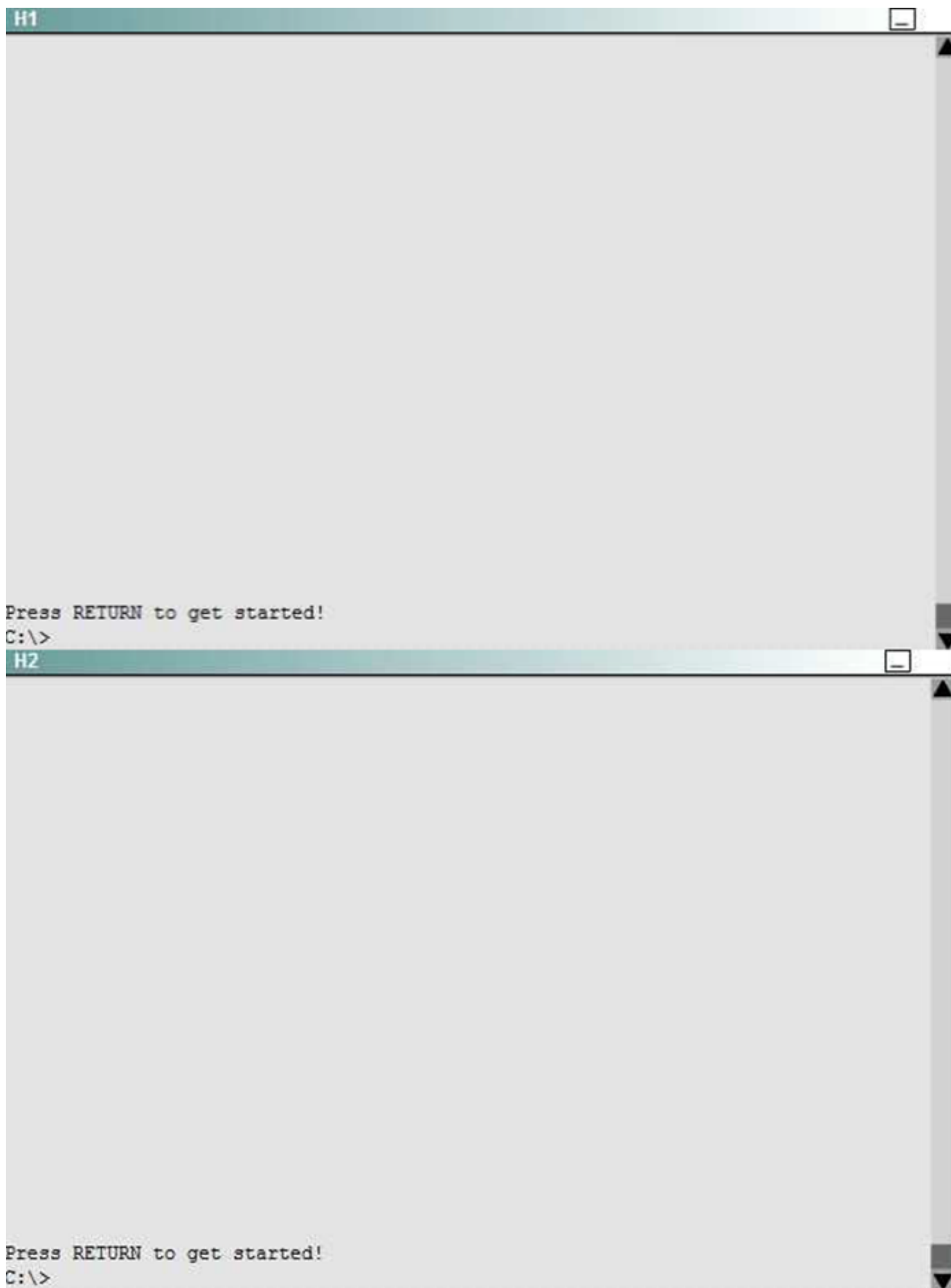
- 10.10.10.0/24
- 190.200.250.32/27
- 190.200.250.64/27

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 333

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 334

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 338

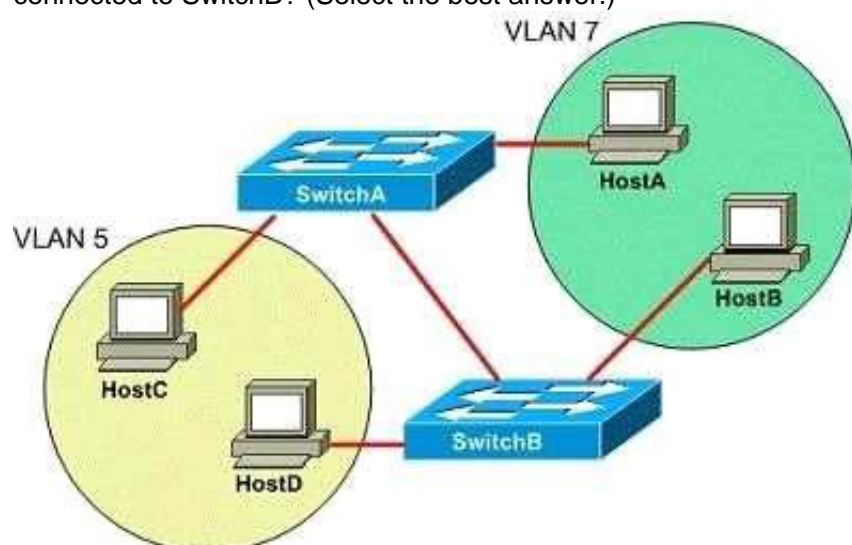
Behavior of an access port when a tagged packet is received other than the access VLAN value.

- 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 342

You want to configure a switched internetwork with multiple VLANs as shown above. Which of the following commands should you issue on SwitchA for the port connected to SwitchB? (Select the best answer.)



- A. switchport mode trunk
- B. switchport access vlan 5
- C. switchport mode access vlan 5
- D. switchport trunk native vlan 5

**Answer:** A

#### NEW QUESTION 344

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 345

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

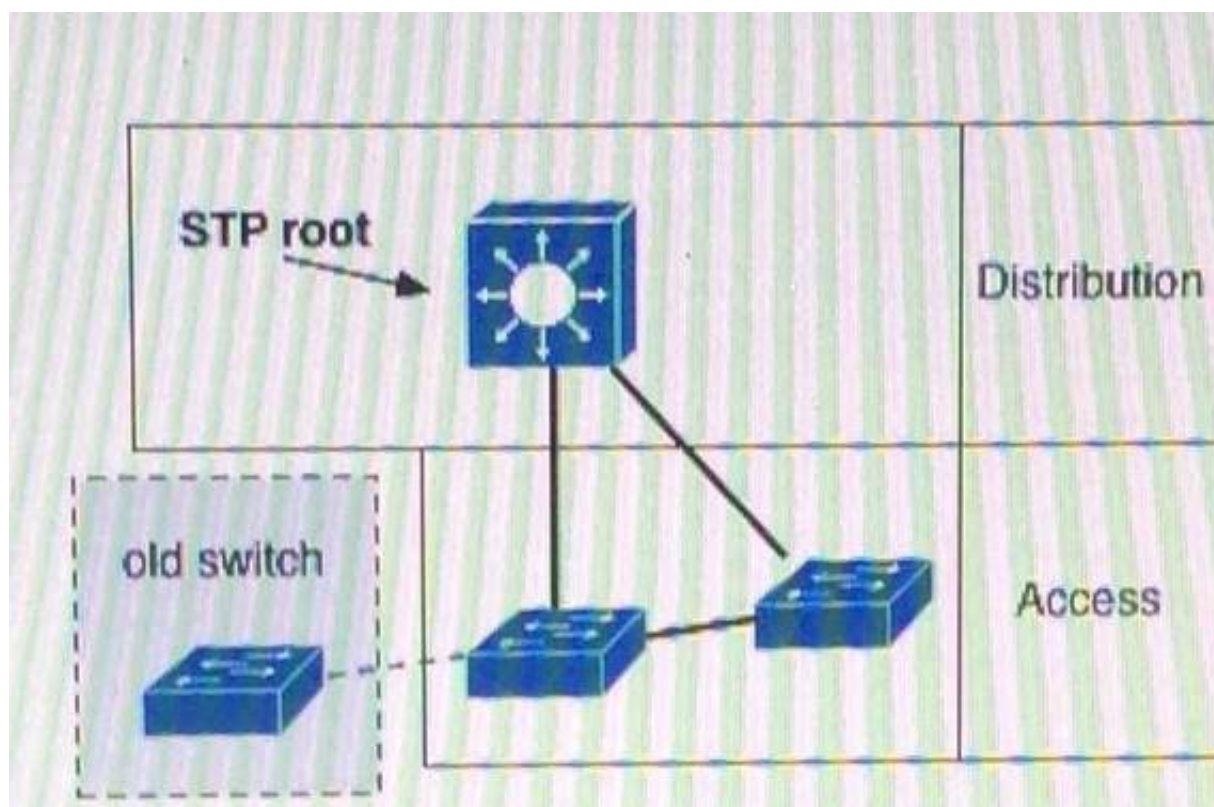
- A. packet will be dropped
- B. packet go to defaultl vlan
- C. packet go to native vlan

**Answer:** A

#### NEW QUESTION 346

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.

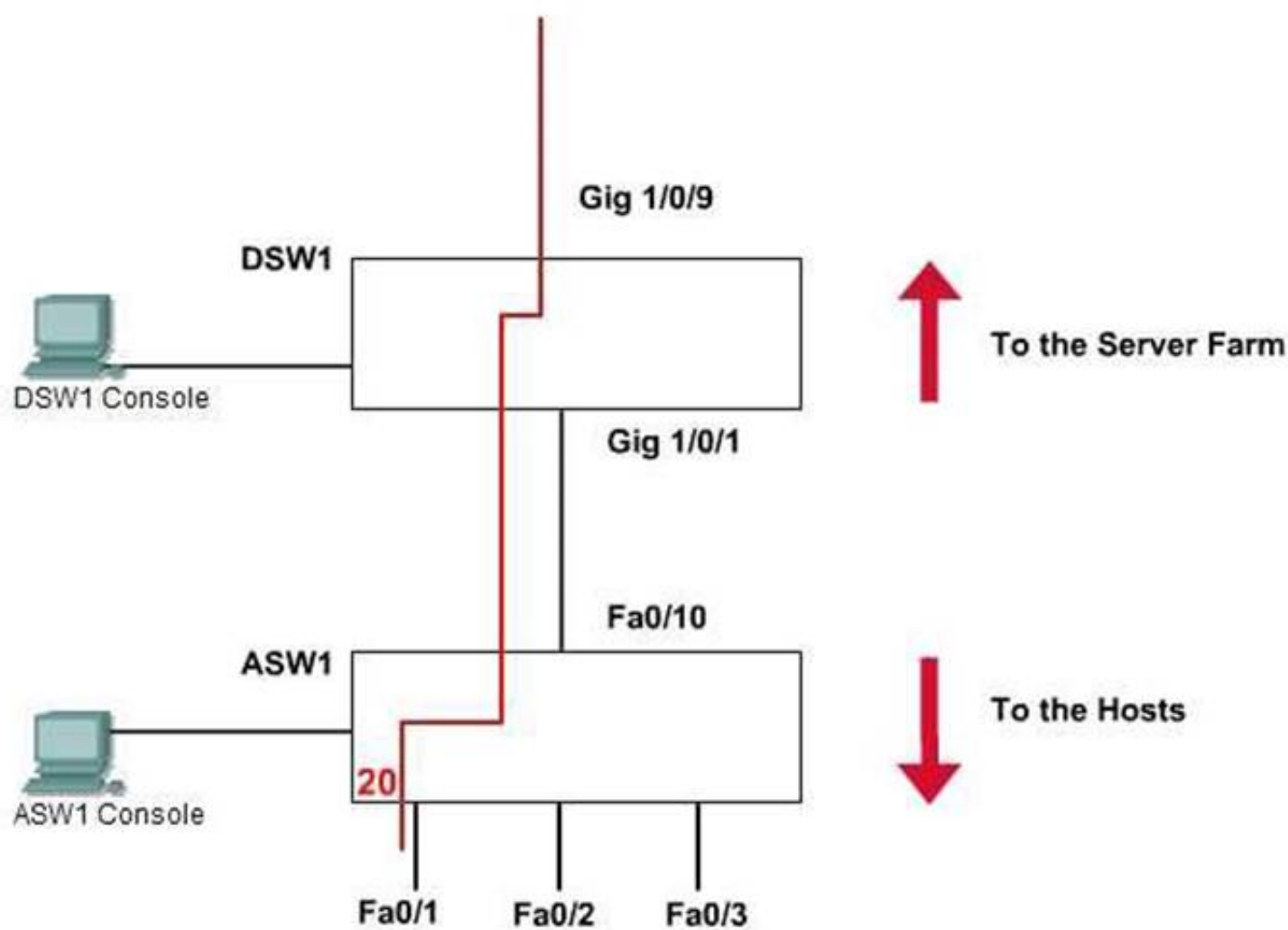
**Answer:** AB

#### NEW QUESTION 347

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

Which two statements about 802.1q are true? (choose two)

- A. It inserts a 4-byte tag field to the Ethernet frame.
- B. Each frame contains a 12-byte VLAN Identifier field.
- C. When it is enabled, the minimum Ethernet frame size is 68 bytes.
- D. Trunking devices add a 4-byte VLAN tag to all VLAN packets.
- E. The header is found within the Ethernet trailer.

**Answer:** AC

#### NEW QUESTION 351

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 355

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 359

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 362

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 367

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 368

What happens if an interface within channel group is configure as SPAN destination?

- A. portchannel will forward traffic to source span
- B. will not be operational
- C. the link will be in error-disable

**Answer:** B

#### NEW QUESTION 373

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 374

What is the default port security violation.

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

**Answer:** B

#### NEW QUESTION 378

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 382**  
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 384**  
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 387

Which three functions does Dynamic ARP Inspection perform with invalid IP-to MAC address bindings?  
 (Choose three.)

- A. accepts
- B. deletes
- C. discards
- D. bypasses
- E. intercepts
- F. logs

**Answer:** CEF

#### NEW QUESTION 391

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 394

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 399

What are three possible router states of HSRP routers on a LAN? (Choose three)

- A. Standby
- B. Established
- C. Active
- D. Idle
- E. Backup
- F. Init

**Answer:** ACF

#### NEW QUESTION 401

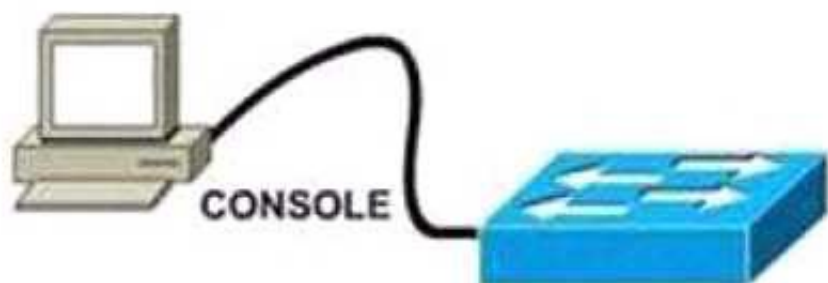
##### SIMULATION

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 402

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 407

Which HSRP extension allows groups to share traffic loads?

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

**Answer:** C

#### NEW QUESTION 410

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 411

Routers R1 and R2 are configured for HSRP as shown below: Router R1:

```
interface ethernet 0
```

```
ip address 20.6.2.1 255.255.255.0
```

```
standby 35 ip 20.6.2.21
```

```
standby 35 priority 100
```

```
interface ethernet 1
```

```
ip address 20.6.1.1.2 255.255.255.0
```

```
standby 34 ip 20.6.1.21 Router R2:
```

```
interface ethernet 0
```

```
ip address 20.6.2.2 255.255.255.0
```

```
standby 35 ip 20.6.2.21
```

```
interface ethernet 1
```

```
ip address 20.6.1.1.1 255.255.255.0
```

```
standby 34 ip 20.6.1.21
```

```
standby 34 priority 100
```

You have configured the routers R1 & R2 with HSRP. While debugging router R2 you notice very frequent HSRP group state transitions. What is the most likely cause of this?

- A. physical layer issues
- B. no spanning tree loops
- C. use of non-default HSRP timers
- D. failure to set the command standby 35 preempt

**Answer:** A

#### NEW QUESTION 416

In a switch stack where is the the SDM template stored?

- A. All switches in stack

- B. Master switch
- C. Flash memory
- D. Another

**Answer:** B

#### NEW QUESTION 421

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 426

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 429

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 433

Which describes the default load balacing 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 434

Which information does the subordinate switch in a switch stack keep for all the VLANs that are configured on it?

- A. VLAN database
- B. DHCP snooping database
- C. spanning trees
- D. routing information

**Answer:** C

#### NEW QUESTION 439

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 441

What is needed for Virtual Switching System "VSS"?

- A. portchannel
- B. trunk

- C. Virtual Switching Link "or VSL"
- D. Virtual trunk

**Answer:** C

#### NEW QUESTION 444

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 446

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

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

**Answer:** B

#### NEW QUESTION 450

What two things occur when an RSTP edge port receives a BPDU? (Choose two.)

- A. The port immediately transitions to the forwarding state.
- B. The switch generates a Topology Change Notification BPDU.
- C. The port immediately transitions to the err-disable state.
- D. The port becomes a normal STP switch port.

**Answer:** BD

#### NEW QUESTION 452

Which option is a Cisco recommended RSPAN configuration practice?

- A. Use a different RSPAN VLAN for each session it configuring RSPAN on multiple switches.
- B. Use only one destination port for each RSPAN session.
- C. Define an RSPAN VLAN before configuring an RSPAN source or destination session.
- D. Assign access ports to an RSPAN VLAN like any other campus VLAN

**Answer:** C

#### NEW QUESTION 455

Where can NetFlow export data for long term storage and analysis?

- A. another network device
- B. flat file
- C. syslog
- D. collector

**Answer:** D

#### NEW QUESTION 459

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 462

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 463

Which two statements about 802.1q are true? (Choose two.)

- A. Each frame contains a 12-byte VLAN Identifier field
- B. It inserts a 4-byte tag field to the Ethernet frame.
- C. When it is enabled, the minimum Ethernet frame size is 68 bytes
- D. The header is found within the Ethernet trailer.
- E. Trunking devices add an 8-byte VLAN tag to all VLAN packets.

**Answer:** CE

#### NEW QUESTION 464

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 interface priority must be manually configured by the administrator

**Answer:** AB

#### NEW QUESTION 468

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

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

**Answer:** A

#### NEW QUESTION 472

Which two statements about 802.1q are true? (Choose two )

- A. It encapsulates the original Ethernet frame and adds a VLAN identifier.
- B. It increases the maximum size of an Ethernet frame to 1094 bytes.
- C. It is a Cisco proprietary protocol.
- D. When it is enabled, it forces a recalculation of the frame check sequence field.
- E. It supports 8-byte VLAN identifiers.
- F. It adds a 32-bit field to the Ethernet frame between the source MAC address and length fields.

**Answer:** BE

#### NEW QUESTION 476

Refer to the exhibit.

\*\*\*Missing Exhibit\*\*\*

Which statement describes the result if a switch that is running PVST+ is added to this network?

- A. Spanning tree is disabled automatically on the network
- B. Spanning tree continues to operate in Rapid PVST+ on DSW2 and the new switch operates in PVST+
- C. Both switches operate in the PVST+ mode
- D. Both switches operate in the Rapid PVST+ mode

**Answer:** B

#### NEW QUESTION 480

Which two statements about default FHRP behavior are true? (Choose two)

- A. A backup GLBP active virtual gateway can become active only if the current active virtual gateway fails.
- B. Preemption is enabled by default.
- C. Unless specifically configured, the priority of an HSRP router is 200.
- D. A standby HSRP router becomes active if it has a higher priority than the priority of the current active router.
- E. A VRRP backup virtual router becomes the master router if its priority is higher than the priority of the current master router.

**Answer:** AE

#### NEW QUESTION 482

What VSS technology allows you to share downstream resources?

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

**Answer:**



C

#### NEW QUESTION 484

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

ARP	method of learning the MAC address of a network device
AVF	value that determines the role of the router in a GLBP environment
AVG	assigns virtual MAC addresses
gateway priority	forwards packets sent to an assigned virtual MAC address

Answer:

Explanation:

ARP	ARP
AVF	gateway priority
AVG	AVG
gateway priority	AVF

#### NEW QUESTION 487

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 492

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 494

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  Vlans 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 498

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 503

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 506

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 508

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 509

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 513

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 517

Refer to the exhibit.

```
*Mar 1 00:16:43.095: %LINK-3-UPDOWN: Interface Vlan11, changed state to up
*Mar 1 00:16:43.099: SB: V111 Interface up
*Mar 1 00:16:43.099: SB11: V111 Init: a/HSRP enabled
*Mar 1 00:16:43.099: SB11: V111 Init -> Listen
*Mar 1 00:16:43.295: SB11: V111 Hello in 172.16.11.112 Active pri 50 ip 172.16.11.115
*Mar 1 00:16:43.295: SB11: V111 Active router is 172.16.11.112
*Mar 1 00:16:43.295: SB11: V111 Listen: h/Hello rcvd from lower pri Active router (50/172.16.11.112)
*Mar 1 00:16:43.295: SB11: V111 Active router is local, was 172.16.11.112
*Mar 1 00:16:43.299: %STANDBY-6-STATECHANGE: Vlan11 Group 11 state Listen -> Active
*Mar 1 00:16:43.299: SB11: V111 Hello out 172.16.11.111 Active pri 100 ip 172.16.11.115
*Mar 1 00:16:43.303: SB11: V111 Hello in 172.16.11.112 Speak pri 50 ip 172.16.11.115
*Mar 1 00:16:46.207: SB11: V111 Hello out 172.16.11.111 Active pri 100 ip 172.16.11.115
*Mar 1 00:16:49.095: SB11: V111 Hello in 172.16.11.112 Speak pri 50 ip 172.16.11.115
```

Based on the debug output, which three statements about HSRP are true? (Choose three.)

- A. The final active router is the router with IP address 172.16.11.111.
- B. The router with IP address 172.16.11.111 has preempt configured.
- C. The priority of the router with IP address 172.16.11.112 is preferred over the router with IP address 172.16.11.111.
- D. The IP address 172.16.11.115 is the virtual HSRP IP address.
- E. The router with IP address 172.16.11.112 has nonpreempt configured.
- F. The router with IP address 172.16.11.112 is using default HSRP priority.

**Answer:** ABD

#### NEW QUESTION 521

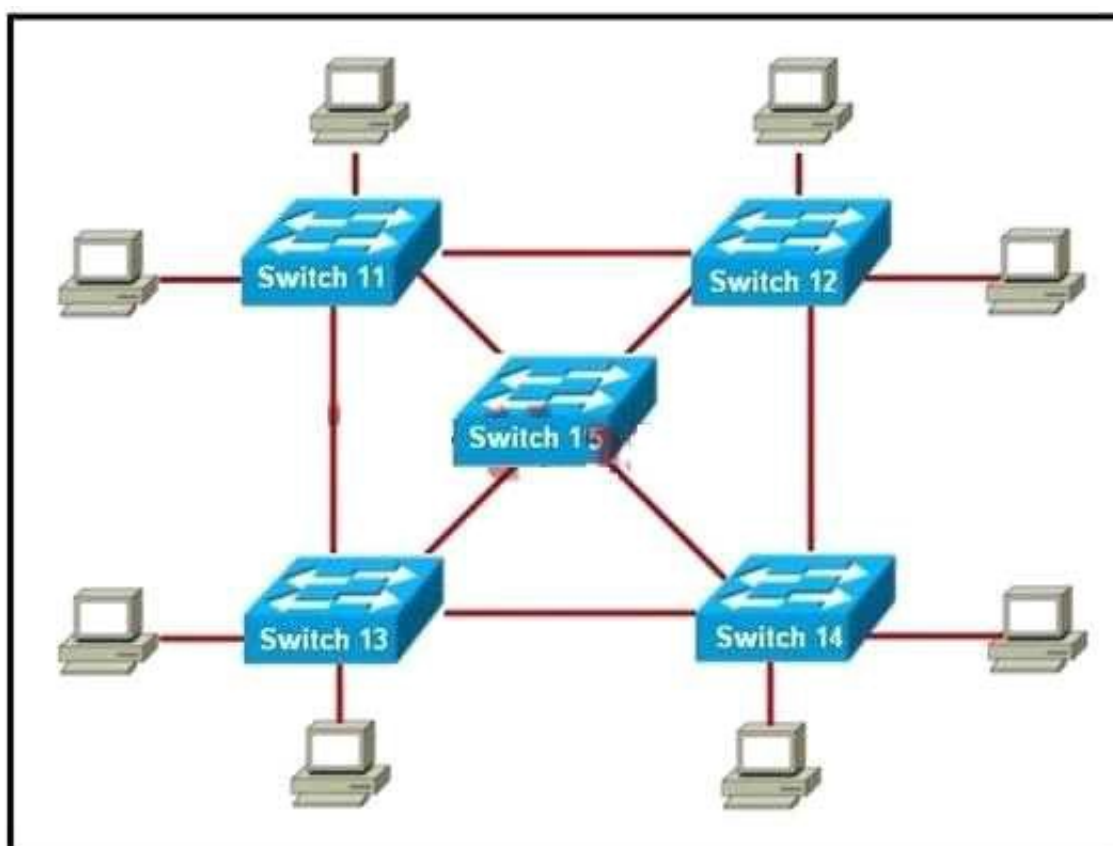
If router R1 interlace Ethernet0/1 goes down and recovers, which of the statement regarding HSRP priority is true?

- A. The interface will have the priority documented by 40 for HSRP group 1
- B. The interface will have the priority documented 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 524

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 526

Which command maximizes system resources for ACL s'?

- A. Sdm prefer default
- B. Sdm prfer routing
- C. Sdm prefer access
- D. Sdm prefer vlan

**Answer:** C

#### NEW QUESTION 529

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 533**

What is the default mode for LACP EtherChannel when configured?

- A. On
- B. Active
- C. Passive
- D. Desirable
- E. Off

**Answer:** C

**NEW QUESTION 536**

Which protocol specified by RFC 2281 provides network redundancy for IP networks, ensuring that user traffic immediately and transparently recovers from first-hop failures in network edge devices or access circuits?

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

**Answer:** C

**NEW QUESTION 541**

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 544**

Which keyword must you use with the storm-control command to set both upper and lower thresholds for unicast, multicast, and broadcast traffic?

- A. pps
- B. level
- C. set
- D. limit

**Answer:** B

**NEW QUESTION 545**

Which two types of threshold can you configure for tracking objects? (Choose two.)

- A. weight
- B. bandwidth
- C. MTU
- D. percentage
- E. administrative distance 15
- F. delay

**Answer:** AD

**NEW QUESTION 549**

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 552

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 557

Refer to the exhibit. Based upon the output of show vlan on switch CAT2, what can we conclude about interfaces Fa0/13 and Fa0/14?

CAT2#show vlan			
VLAN	Name	Status	Ports
1	default	active	Fa0/1, Fa0/2, Fa0/3, Fa0/4 Fa0/5, Fa0/6, Fa0/7, Fa0/8 Fa0/9, Fa0/10, Fa0/11, Fa0/12 Fa0/15, Fa0/16, Fa0/17, Fa0/18 Fa0/19, Fa0/20, Fa0/21, Fa0/22 Fa0/23, Fa0/24, Gi0/1, Gi0/2
2	VLAN0002	active	
3	VLAN0003	active	
4	VLAN0004	active	
5	VLAN0005	active	
1002	fddi-default	act/unsup	
1003	trcrf-default	act/unsup	
1004	fddinet-default	act/unsup	
1005	trbrf-default	act/unsup	

- A. That interfaces Fa0/13 and Fa0/14 are in VLAN 1
- B. That interfaces Fa0/13 and Fa0/14 are down
- C. That interfaces Fa0/13 and Fa0/14 are trunk interfaces
- D. That interfaces Fa0/13 and Fa0/14 have a domain mismatch with another switch
- E. That interfaces Fa0/13 and Fa0/14 have a duplex mismatch with another switch

Answer: C

#### NEW QUESTION 562

Which three characteristics of AAA with RADIUS are true? (Choose three.)

- A. It runs on TCP port 49
- B. It is a standards-based implementation
- C. It runs on UDP port 1812.
- D. It uses a client-private cloud architecture
- E. It uses a client-server architecture
- F. It is a Cisco-proprietary implementation

Answer: BCE

#### NEW QUESTION 567

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 572

Refer to the exhibit.

```
Switch2#
01:25:08: %PM-4-ERR_DISABLE: channel-misconfig error detected on
Fa0/23, putting Fa0/23 in err-disable
state
01:25:08: %PM-4-ERR_DISABLE: channel-misconfig error detected on
Fa0/24, putting Fa0/24 in err-disable
state
Switch2#
```

```
Switch1#show etherchannel summary
```

```
!output omitted
```

Group	Port-channel	Protocol	Ports
1	Po2(SD)	LACP	Fa1/0/23(D)

```
Switch2#show etherchannel summary
```

```
!output omitted
```

Group	Port-channel	Protocol	Ports
1	Po1(SD)	-	Fa0/23(D) Fa0/24(D)

An engineer is configuring EtherChannel between two switches and notices the console message on switch 2. Based on the output, which option describes the reason for this error?

- A. Switch 1 does not have enough member ports configured.
- B. Switch 2 has too many member ports configured.
- C. The port channel interface numbers do not match.
- D. The EtherChannel protocols do not match.

**Answer:** D

#### NEW QUESTION 575

Which three statements are correct with regard to the IEEE 802.1Q standard? (Choose three)

- A. The IEEE 802.1Q frame format adds a 4 byte field to a Ethernet frame
- B. The packet is encapsulated with a 26 byte header and a 4 byte FCS
- C. The protocol uses point-to-multipoint connectivity
- D. The protocol uses point-to-point connectivity
- E. The IEEE 802.1Q frame uses multicast destination of 0x01-00-0c-00-00
- F. The IEEE 802.1Q frame retains the original MAC destination address

**Answer:** ADF

#### NEW QUESTION 578

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 579

Which information in a RADIUS access-request packet is encrypted?

- A. username and password
- B. entire header



- C. entire payload
- D. password

**Answer:** A

#### NEW QUESTION 583

When a Layer 2 trunking EtherChannel is configured, which two attributes must match across the member ports? (Choose two)

- A. Interface Description.
- B. Spanning-tree cost.
- C. spanning-tree priority
- D. allowed VLANS
- E. trunking mode.

**Answer:** BC

#### NEW QUESTION 586

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 587

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 591

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 593

Which three responses from a RADIUS server are valid? (Choose three.)

- A. REJECT
- B. CHALLENGE
- C. ACCEPT
- D. UPDATE PASSWORD
- E. CONFIRM

**Answer:** ABC

#### NEW QUESTION 596

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 600

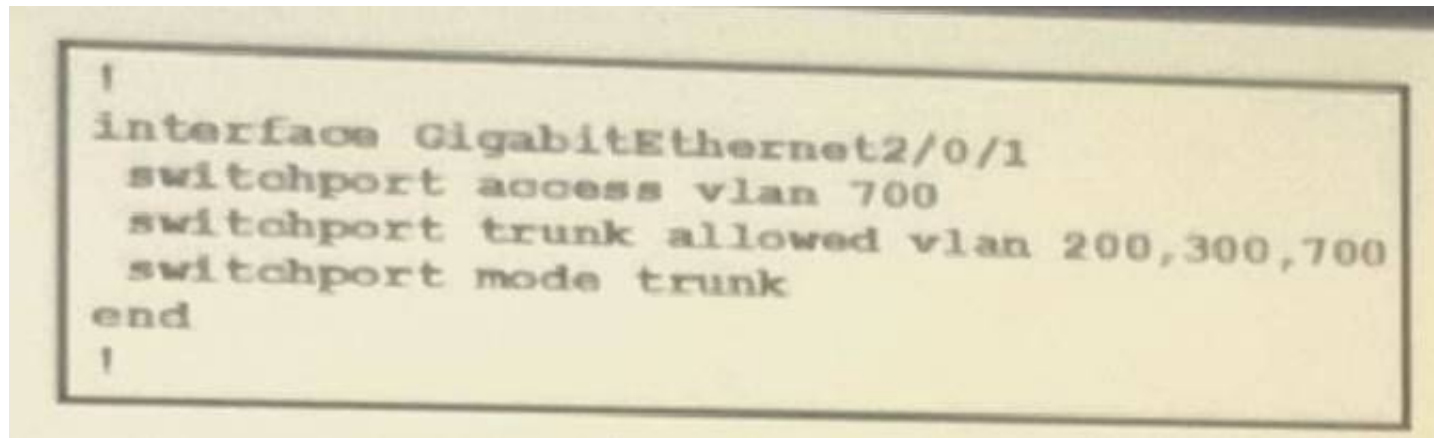
Which layer private VLAN partition the broadcast domain?

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

**Answer:** B

#### NEW QUESTION 603

Refer to the exhibit



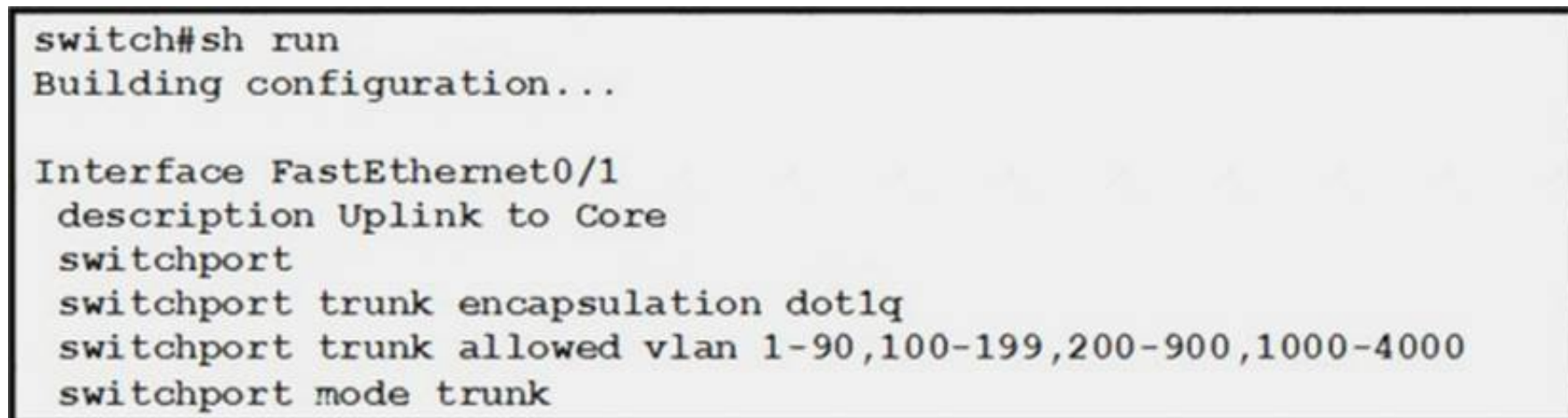
Which statement about the current configuration on port GigabitEthernet2/0/1 is true?

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

**Answer:** B

#### NEW QUESTION 604

Refer to the exhibit.



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 609

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