DUMPSARENA

CCNP Cisco IP Switched Networks (SWITCH v2.0)

Cisco 300-115

Version Demo

Total Demo Questions: 20

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Topic Break Down

Topic	No. of Questions
Topic 1, Layer 2 Technologies	197
Topic 2, Infrastructure Security	45
Topic 3, Infrastructure Services	84
Topic 4, Mix Questions	608
Total	934

QUESTION NO: 1

Which statement about the default behavior of a Cisco switch MAC address table is true?

A. MAC addresses are not learned on extended VLANs.

B. MAC addresses are aged out of the MAC table after 600 seconds.

C. MAC addresses are associated with a VLAN.

D. MAC address filtering is enabled on trunk ports.

ANSWER: C

QUESTION NO: 2

What is the default violation status of port security?

A. none

B. shutdown

C. trap

D. enabled

ANSWER: B

QUESTION NO: 3

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

Explanation:

Here the question asks for transporting “frames and IP traffic for different broadcast domains that are mutually isolated” which is basically a long way of saying VLANs so trunking is needed to carry VLAN information. There are 2 different methods for trunking, 802.1Q and ISL. Of these, only 802.1Q is supported by multiple vendors since ISL is a Cisco proprietary protocol.

QUESTION NO: 4

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

A. channel-protocol lacp
channel-group 1 mode on

B. channel-protocol pagp
channel-group 1 mode auto

C. channel-protocol lacp chan-
nel-group 1 mode active

D. channel-protocol pagp channel-
group 1 mode desirable

E. channel-protocol pagp
channel-group 1 mode on

A. Option A

B. Option B

C. Option C

D. Option D

E. Option E

ANSWER: B D

QUESTION NO: 5

Which two VLAN ranges can you add, modify or delete on a switch? (Choose two.)

A. VLANs 1-1001

B. VLANs 1005-4094

C. VLANs 1006-4094

D. VLANs 2-1001

E. VLANs 2-4094

ANSWER: C D

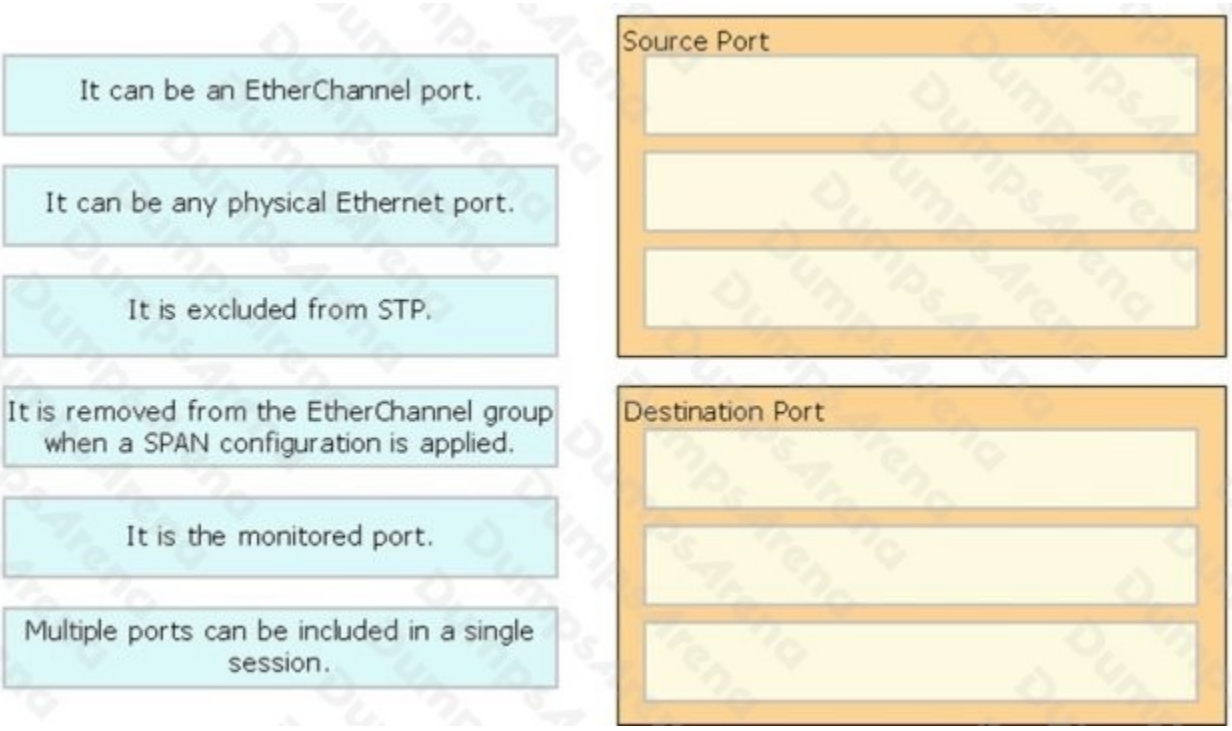
Explanation:

Reference:
https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst3650/software/release/3se/vlan/configuration_guide/b_vlan_3se_3650_cg/ b_vlan_3se_3650_cg_chapter_011.html

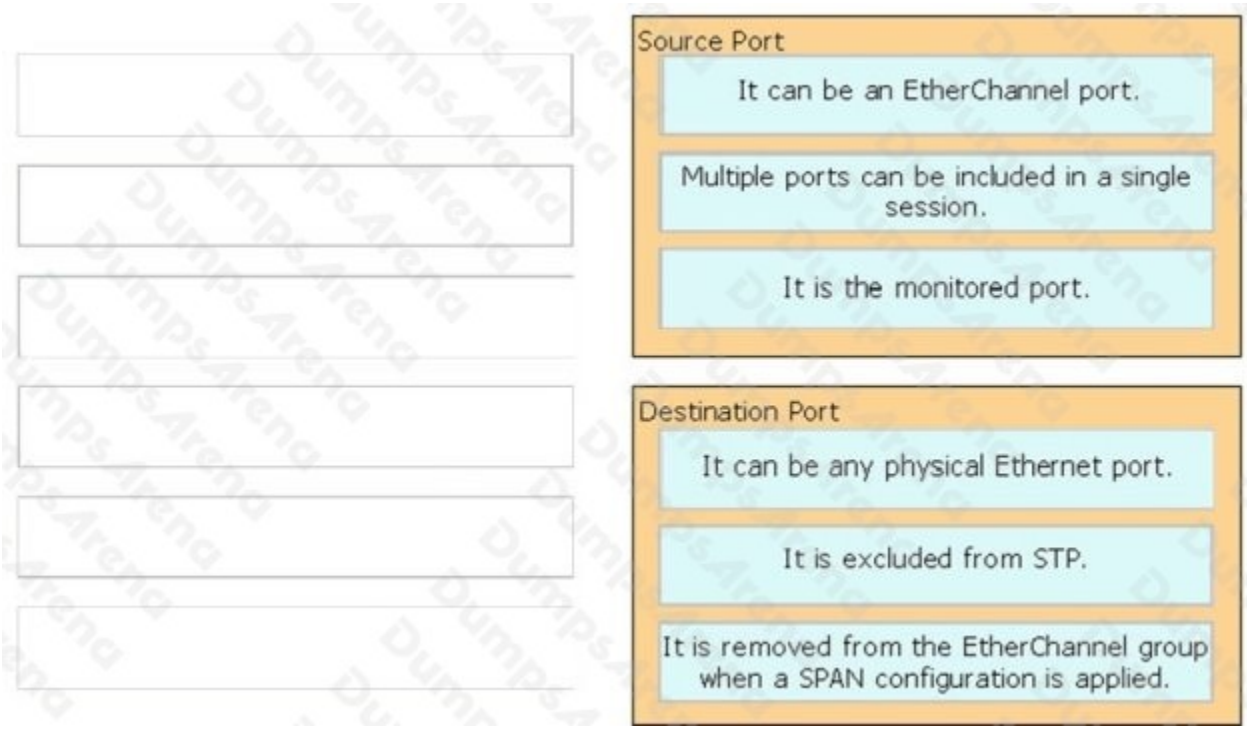
QUESTION NO: 6 - (DRAG DROP)

DRAG DROP Drag and drop the statements about SPAN ports from the left onto the correct port types on the right.

Select and Place:



ANSWER:



Explanation:

Reference: https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst3750x_3560x/software/release/12-2_55_se/configuration/guide/3750xscg/ swspan.html

QUESTION NO: 7

Which technology provides a multichassis IP connection between VSS-enabled switches and downstream devices?

A. LACP

B. MEC

C. ICCP

D. LAG

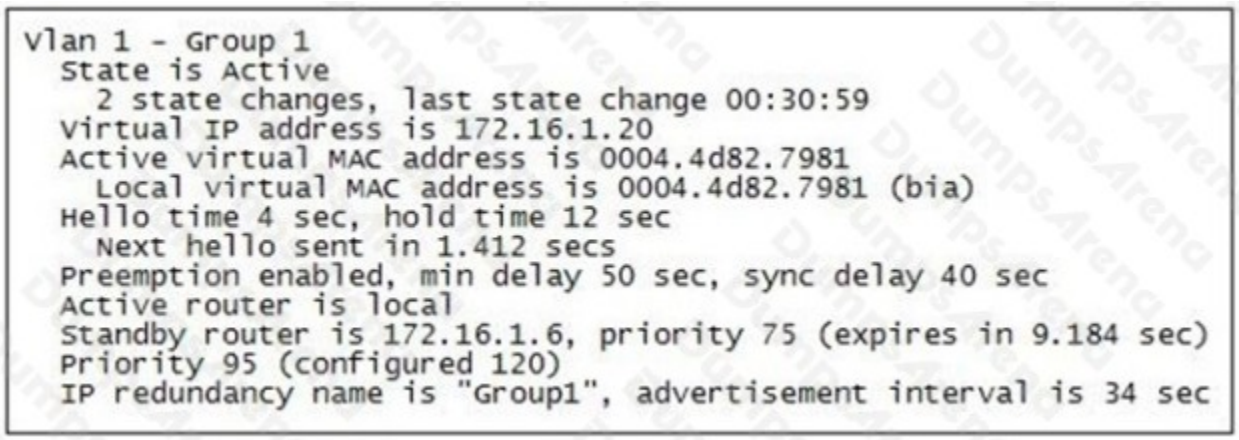
E. BFD

F. PAgP

ANSWER: B

QUESTION NO: 8

The partial output displayed in the exhibit is a result of what IOS command? (Click on the Exhibit(s) button.)



A. switch# show running-config

B. switch# show standby vlan1 active brief

C. switch# show hsrp 1

D. switch# show standby

ANSWER: D

Explanation:

The command show standby produces the output displayed in the exhibit. This command displays information about HSRP on all configured interfaces and for all HSRP groups. Important information in the exhibit includes that this router is the active router, the virtual IP address for the HSRP group is 172.16.1.20, the address of the standby router is 172.16.1.6, and the router is configured to preempt.

The command show running-config will display the complete configuration of the device, including the configuration of HSRP, but will not display the current status of HSRP on the switch.

The command show standby vlan 1 active brief provides a summary display of all HSRP groups on the switch that are in the active state. This output would provide basic information, not nearly the detail indicated in the exhibit. The following is an example of output for show standby vlan 1 active brief:

Interface Grp Prio P State Active addr Standby addr Group addr Vlan1 0 120 Active 172.16.1.5 Unknown 172.16.1.20

The command show hsrp 1 is not valid due to incorrect syntax.

Objective:

Infrastructure Services Sub-Objective:

Configure and verify first-hop redundancy protocols

References:

Cisco > Cisco IOS IP Application Services Command Reference > show ip sockets through standby name > show standby

Cisco > Cisco IOS IP Application Services Configuration Guide, Release 12.4 > Part 1: First Hop Redundancy Protocols > Configuring HSRP

QUESTION NO: 9

Which two statements about HSRP is true? (Choose two.)

A. It required all the groups to have the same routing protocols.

B. It must have an IP address that is active.

C. It must have the same virtual MAC address for all groups.

D. It must have the same VIP address in all groups.

ANSWER: C D

QUESTION NO: 10

Refer to the following partial output of the debug standby command on an HSRP-enabled router rtrA:

```
rtrA#debug standby
!
!
SB:FastEthernet0/0 Hello in 10.5.5.1 Active pri 100 hel 3 hol 10 ip 10.5.5.5
SB:FastEthernet0/0 Active router is 10.5.5.1
SB:FastEthernet0/0 Hello in 10.5.5.1 Active pri 100 hel 3 hol 10 ip 10.5.5.5
SB:FastEthernet0/0 Hello in 10.5.5.1 Active pri 100 hel 3 hol 10 ip 10.5.5.5
SB:FastEthernet0/0 state Listen - > Speak
SB:FastEthernet0/0 Hello out 10.5.5.2 Speak pri 120 hel 3 hol 10 ip 10.5.5.5
SB:FastEthernet0/0 Hello in 10.5.5.1 Active pri 100 hel 3 hol 10 ip 10.5.5.5
SB:FastEthernet0/0 state Standby - > Active
SB:FastEthernet0/0 Active router is local, was 10.5.5.1
SB:FastEthernet0/0 Hello out 10.5.5.2 Active pri 120 hel 3 hol 10 ip 10.5.5.5
<output omitted>
```

Which of the following information CANNOT be gathered from the given partial output?

A. IP address of the virtual router

B. IP address of the current active router

C. Priority of the active router

D. The tracked interfaces

ANSWER: D

Explanation:

The debug standby command does not provide any information about the tracked HSRP interfaces. This command displays information regarding the changes in the state of the HSRP routers and packet transmissions between the routers. Some of the information that you can view using the debug standby command is as follows:

IP address of the virtual router

IP address of the current active router

Priority of the active router

Hello timer values

Hold time values

State of the router

Interface used to exchange HSRP packets

HSRP packets contain the IP address of the virtual router. The IP address preceded by the text ip in the debug standby output is the address of the virtual router. In this case, the packets contain 10.5.5.5 after the text ip. This implies that 10.5.5.5 is the IP address of the virtual router.

After HSRP selects the active and standby routers for a group, only the active and standby routers send HSRP packets to the virtual router. If the active router fails, the standby router becomes the active router. The text Hello in and the text Hello out indicate the hello packets received from and sent to the given IP address. Initially the router with IP address 10.5.5.1 is the active router, as indicated by the text Active router is 10.5.5.1.

The priority of the active router is 100, which is indicated by the text pri 100. However, when a hello packet from 10.5.5.2 is received, which has a higher priority (120) than the active router, the 10.5.5.2 router automatically and instantly becomes the active router. This implies that the router with the IP address 10.5.5.2 was the standby router and the standby preempt command was executed.

Objective:

Infrastructure Services Sub-Objective:

Configure and verify first-hop redundancy protocols

References:

Cisco IOS Debug Command Reference > debug sntp adjust Through debug tag-switching xtagatm vc > debug standby

Home > Support > Technology Support > IP > IP Application Services > Configure > Configuration Examples and Technotes > Avoiding HSRP

Instability in a Switching Environment with Various Router Platforms > Troubleshoot > Troubleshooting Commands > Sample Debug Output

Home > Support > Technology Support > IP > IP Application Services > Design > Design Technotes > Understanding and Troubleshooting HSRP Problems in Catalyst Switch Networks > Understand HSRP

QUESTION NO: 11

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 an Ethernet frame to 1594 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: D F

QUESTION NO: 12

Which type of packet does DHCP snooping continuously check in a production network?

A. DHCP Snooping

B. DHCP Relay

C. DHCP Request

D. DHCP Acknowledge

E. DHCP Reply

F. DHCP Allow

ANSWER: A

QUESTION NO: 13

Which two statements about the HSRP priority are true? (Choose two.)

A. To assign the HSRP router priority in a standby group, the standby group-number priority priority-value global configuration command must be used.

B. The default priority of a router is zero (0).

C. The no standby priority command assigns a priority of 100 to the router.

D. Assuming that preempting has also been configured, the router with the lowest priority in an HSRP group would become the active router.

E. When two routers in an HSRP standby group are configured with identical priorities, the router with the highest configured IP address will become the active router.

ANSWER: C E

QUESTION NO: 14

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

A. It is incompatible with spanning-tree PortFast.

B. It supports two STP instances per VLAN.

C. It requires approximately 50 seconds to complete reconvergence.

D. Backwards compatibility with 802.1d is not supported.

E. It elects one root switch per VLAN instance.

F. It automatically enables UplinkFast and BackboneFast.

ANSWER: E F

QUESTION NO: 15

You have been assigned to create a plan to implement HSRP on the router connecting your company's network to the Internet. The router should be the active router in the HSRP group. On the active router, the following conditions should be met:

Enable preemption with no delay

Set Hello timer to 10 seconds and hold time to 25 seconds

Set the priority to 150

Which of the following commands should be included in the plan to meet the given requirements? (Choose all that apply.)

A. standby 1 preempt delay minimum 10

B. standby 1 preempt

C. standby 1 priority 150

D. standby 1 timers 10 25

E. standby 1 timers 25 10

F. standby track interface S0/1

ANSWER: B C D

Explanation:

The following commands should be included in the implementation plan to meet the given requirements:

standby 1 preempt standby 1 priority 150

standby 1 timers 10 25

The standby 1 preempt command configures the preempt settings on the router. This command allows preemption without any delay. The standby 1 priority 150 command sets the priority of the router to 150. The default priority of HSRP routers is 100. This implies that this router becomes the active router if there are no other routers in the group with a higher priority. The standby 1 timers 10 25 command sets the Hello timer and the hold time on the local router. The first value, 10, specifies the Hello timer, and the second value, 25, indicates the hold time.

The most essential steps to configure HSRP on routers are as follows:

Assign IP addresses to the interfaces using the ip address command

Enable HSRP on the interfaces and assign the virtual IP address using the standby ip command

Set the HSRP priority of the interfaces using the standby priority command

Configure HSRP preempt settings on the interfaces using the standby preempt command

Set the Hello timers using the standby timers command

Enable interface tracking for other HSRP-enabled interfaces using the standby track command

The standby 1 preempt delay minimum 10 command should not be included in the implementation plan. This command causes the router to preempt the active router after a minimum of 10 seconds. However, the requirement states that there should be no delay in preemption (a delay of 0 seconds), which is the default behavior.

The standby 1 timers 25 10 command should not be included in the implementation plan. This command sets the Hello timer to 25 seconds and the hold time to 10 seconds. However, the requirement is to set the Hello timer to 10 seconds and the hold time to 25 seconds.

The standby track interface S0/1 command should not be included in the implementation plan. This command enables tracking of the S0/1 interface on the local router. However, there is no requirement in the scenario to track an interface. Tracking can be used to decrement the priority of an HSRP router when the interface goes down. Using the default decrement value, if S0/1 were to go down, the priority of the router would be reduced by 10.

Objective:

Infrastructure Services Sub-Objective:

Configure and verify first-hop redundancy protocols

References:

Home > Support > Configuring HSRP > How to Configure HSRP

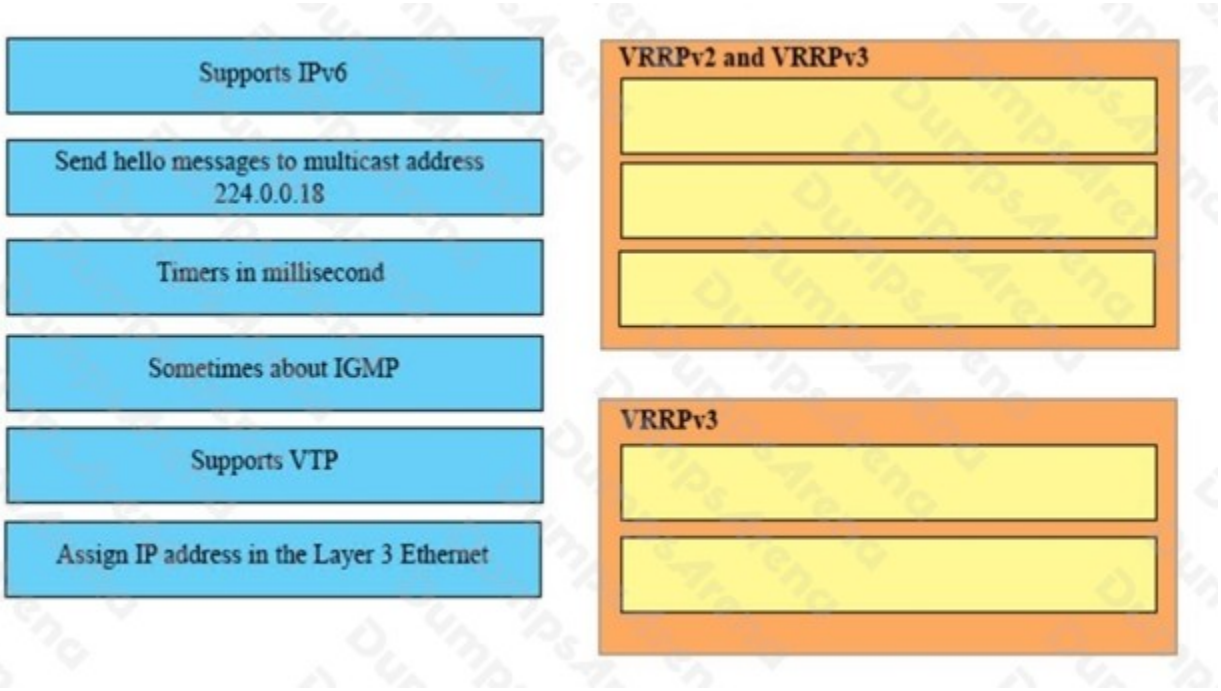
Internetworking Case Studies > Using HSRP for Fault-Tolerant IP Routing > Configuring HSRP

QUESTION NO: 16 - (DRAG DROP)

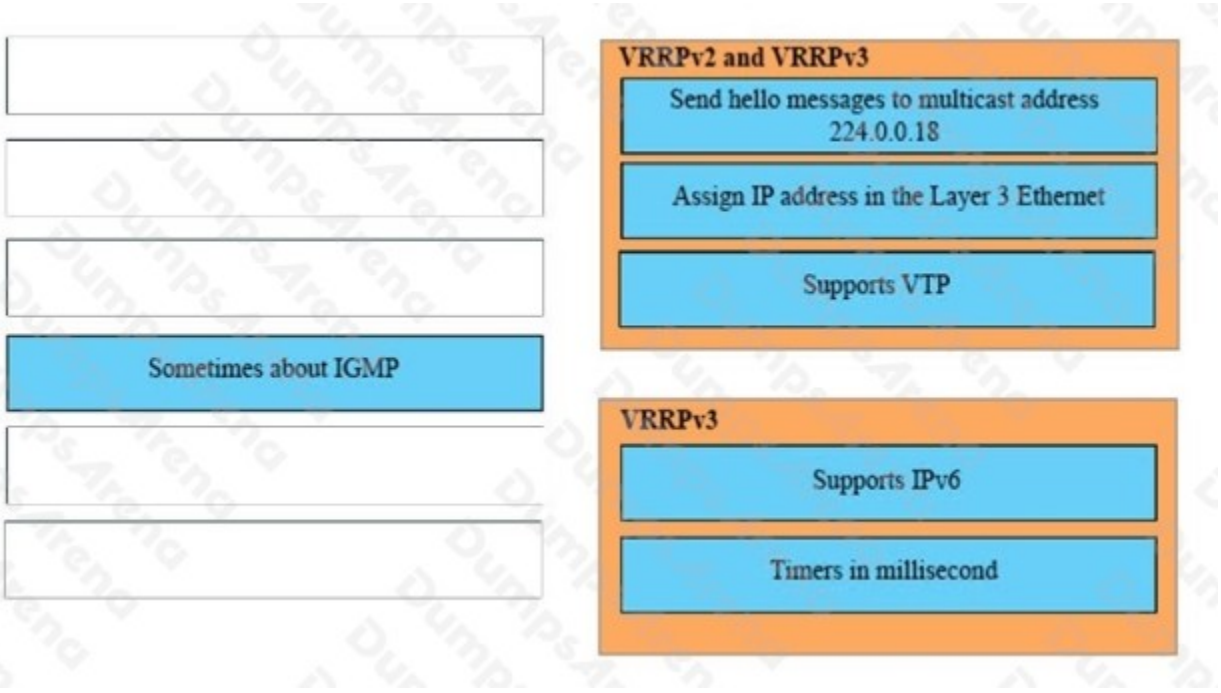
DRAG DROP

Drag and Drop - VRRPv2 & VRRPv3 vs VRRPv3 Comparison
Select and Place:

Select and Place:



ANSWER:



QUESTION NO: 17

What are the prerequisite for HSRP interface to come up? (Choose two.)

A. VIP on same subnet.

B. Physical IP address must be set.

C. Virtual MAC address need to be configured.

D. VIP on a separate subnet.

E. There are no prerequisites required to configure HSRP.

ANSWER: A B

QUESTION NO: 18

Which feature can you enable on your network to most effectively limit unknown traffic?

A. DHCP packet rate limiting

B. unicast storm control

C. multicast storm control

D. broadcast storm control

E. ARP packet rate limiting

ANSWER: B

Explanation:

Storm control configuration:

• broadcast—Configures broadcast storm control.

• multicast—Configures multicast storm control.

• unicast—Configures unknown unicast storm control

Reference: https://www.cisco.com/c/en/us/td/docs/wireless/asr_901/Configuration/Guide/b_asr901-scg/b_asr901-scg_chapter_0101001.pdf

QUESTION NO: 19 - (SIMULATION)

SIMULATION

Acme is a small export company that has an existing enterprise network comprised of 5 switches; - CORE, DSW1, DSW2, ASW1 and ASW2.

The topology diagram indicates their desired pre-VLAN spanning tree mapping.

Previous configuration attempts have resulted in the following issues:

– CORE should be the root bridge for VLAN 20; however, DSW1 is currently the root bridge for VLAN 20.

– Traffic for VLAN 30 should be forwarding over the gig 1/0/6 trunk port between DSW1 and DSW2. However, VLAN 30 is currently using gig 1/0/5.

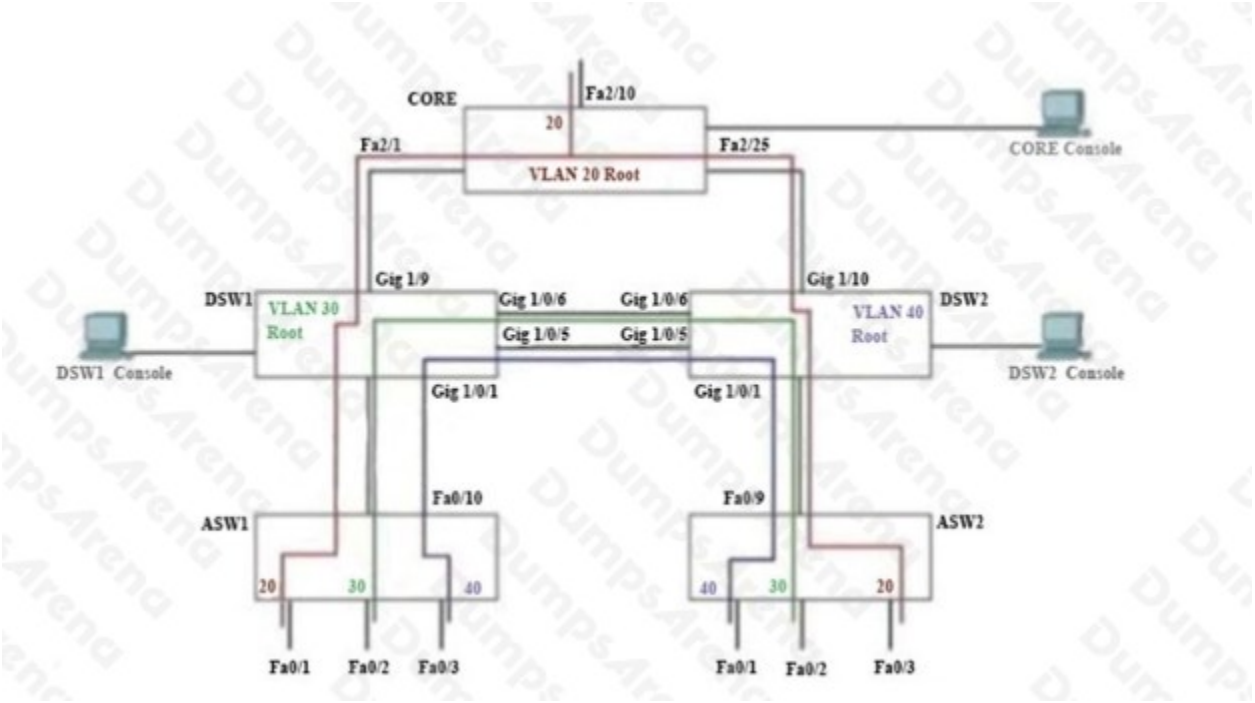
– Traffic for VLAN 40 should be forwarding over the gig 1/0/5 trunk port between DSW1 and DSW2. However, VLAN 40 is currently using gig 1/0/6.

You have been tasked with isolating the cause of these issuer and implementing the appropriate solutions.

You task is complicated by the fact that you only have full access to DSW1, with isolating the cause of these issues and implementing the appropriate solutions. Your task is complicated by the fact that you only have full access to DSW1, with the enable secret password cisco. Only limited show command access is provided on CORE, and DSW2 using the enable 2 level with a password of acme.

No configuration changes will be possible on these routers.

No access is provided to ASW1 or ASW2.



ANSWER: See

Explanation:

DSW1#conf t

DSW1(config)#spanning-tree vlan 20 priority 61440

DSW1(config)#int g1/0/5

DSW1(config-if)#spanning-tree vlan 40 cost 1

DSW1(config-if)#no shut DSW1(config-if)#exit

DSW1(config)#int g1/0/6

DSW1(config-if)#spanning-tree vlan 30 port-priority 64

DSW1(config-if)#no shut DSW1(config-if)#end

DSW1#copy run start

Verification:

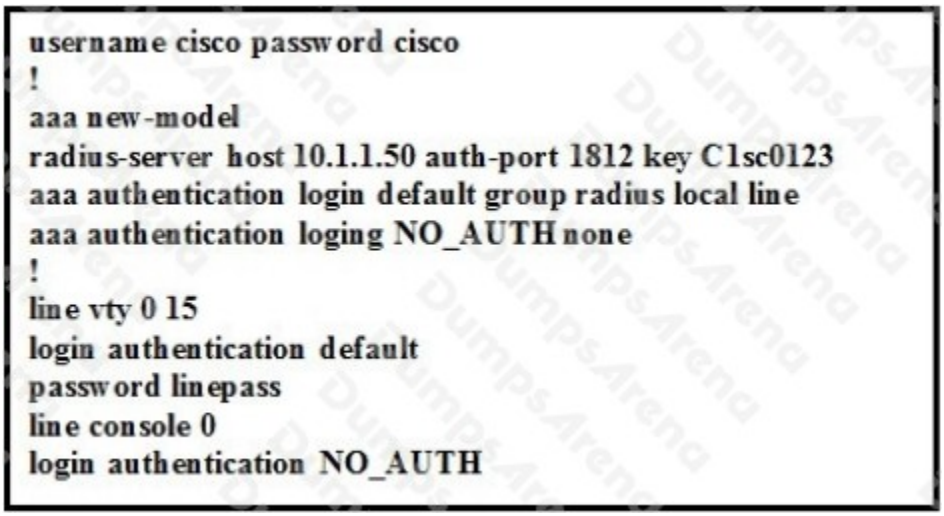
DSW1# show spanning-tree vlan 20

DSW1# show spanning-tree vlan 40

DSW2# show spanning-tree vlan 30

QUESTION NO: 20

Refer to the exhibit.



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

Explanation:

Here the console has been configured with the NO_AUTH name, which lists none as the authentication method. None means no authentication, meaning that credentials are not required and all sessions are allowed access immediately.