Cisco

CCNP SWITCH

642-813 642-813 642-813 642-813 642-813 642-813 **642-813**

PRINTABLES

PRINTABLE PRACTICE QUESTIONS

QUESTIONS, ANSWERS, AND DETAILED EXPLANATIONS IN AN EASY-TO-USE PRINTABLE FORMAT

LearnSmart

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CCNP SWITCH (642-813) Printables

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Chapter 1
Implement VLAN based solution, given a network design and a set of requirements

1. When an Ethernet collision occurs, how do the hosts react?Choose the best answer.

   - ❍ A. The hosts are forced to operate in CSMA-CA mode.
   - ❍ B. The hosts are forced to operate in half-duplex mode.
   - ❍ C. The hosts are forced to operate in full-duplex mode.
   - ❍ D. The hosts are forced to operate in layer 2 mode.

   Find the Answer p. 67

2. A layer 2 switch has how many collision domains?Choose the best answer.

   - ❍ A. One
   - ❍ B. Zero
   - ❍ C. Two per port
   - ❍ D. One per port

   Find the Answer p. 67

3. Which of the following is NOT a benefit of using a layer 2 switch over a bridge or hub?Choose the best answer.

   - ❍ A. One collision domain per port.
   - ❍ B. Each port is a separate broadcast domain.
   - ❍ C. Hosts can operate in Full-duplex mode.
   - ❍ D. Bandwidth per port is not shared.

   Find the Answer p. 67

4. A layer two switch can be described as what?Choose the best answer.

- ❍ A. A multiport transparent bridge
- ❍ B. A layer 3 hub
- ❍ C. A single port transparent bridge.
- ❍ D. A multiport broadcast domain.

Find the Answer p. 67

5. How does a layer 2 switch forward frames?Choose the best answer.

- ❍ A. Based on the source and destination IP address.
- ❍ B. Based on the source and destination MAC address.
- ❍ C. Based on the destination IP address.
- ❍ D. Based on the destination MAC address.

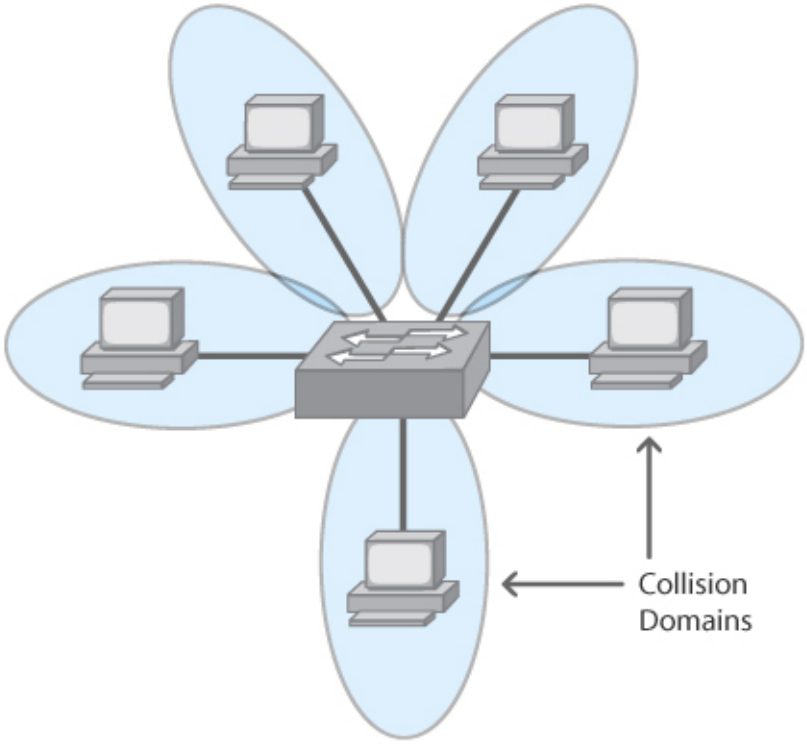
Find the Answer p. 67

6. What does the following diagram depict?Choose the best answer.

- ❍ A. Bridge
- ❍ B. Layer 2 switch
- ❍ C. Layer 3 switch
- ❍ D. Hub

Find the Answer p. 67

Exhibit(s):



7. What does the following diagram show?Choose the best answer.

- ❍ A. CAM table
- ❍ B. DNS table
- ❍ C. CDP neighbor table
- ❍ D. Broadcast table

Find the Answer p. 67

Exhibit(s):

Forwarding Table
0000.1111.1111: port 11, vlan X
0000.2222.2222: port 6, vlan Y
0000.3333.3333: port 1, vlan X
0000.4444.4444: port 9, vlan X
0000.5555.5555: port: 8, vlan Y
0000.6666.6666: port 14, vlan Y
0000.7777.7777: port 3, vlan X
0000.8888.8888: port 16, vlan Y
Broadcast: VLAN X: all VLAN X ports Broadcast: VLAN Y: all VLAN Y ports

8. How are MAC addresses dynamically placed into a layer 2 switch forwarding table?Choose the best answer.

- ❍ A. The switch constantly looks at frames and watches the source MAC address. If a MAC address is not already in the table, the switch places the MAC address into the table along with the switchport the frame came in on.
- ❍ B. The switch constantly looks at frames and watches the destination MAC address. If a MAC address is not already in the table, the switch places the MAC address into the table along with the switchport the frame came in on.
- ❍ C. An administrator must enter the source MAC address into the switch and assign it a port from where the frames will be sent from.
- ❍ D. An administrator must enter the destination MAC address into the switch and assign it a port from where the frames will be sent from.

Find the Answer p. 67

9. Which of the following decisions is NOT performed at a layer 2 switch ingress queue?Choose the best answer.

- ❍ A. Forwarding decision using the CAM table
- ❍ B. Security Access Control Lists
- ❍ C. QoS Access Control Lists
- ❍ D. Route cache

Find the Answer p. 67

10. Which of the following is found in a layer 2 switch TCAM?Choose the best answer.

- ❍ A. Access control lists
- ❍ B. MAC Addresses
- ❍ C. Layer 2 forwarding table
- ❍ D. VLAN information

Find the Answer p. 67

11. What multilayer switch type builds and pre-populates a single database of the entire network topology. As the routing topology changes over time, the database updates dynamically with no latency penalty?Choose the best answer.

- ❍ A. Route one, switch many
- ❍ B. CEF
- ❍ C. Route caching
- ❍ D. TCAM

Find the Answer p. 67

12. When using a CEF enabled switch, most packets can be forwarded to the router CPU for additional processing. Which of the following is NOT a reason to "punt" the packet to the CPU?Choose the best answer.

- ❍ A. TTL has expired on the packet.
- ❍ B. Routing protocol updates
- ❍ C. Packets needing encryption
- ❍ D. CDP packets
- ❍ E. Multicast packets
- ❍ F. Packets requiring NAT

Find the Answer p. 67

13. What command(s) statically configures a MAC address into the switch CAM table for the mac address 0001.1234.5678.1234 on vlan 10 port fa0/10?Choose the best answer.

- ❍ A. Switch(config)# interface fa0/10

  Switch(config-if)# switchport access vlan 10

  Switch(config-if)# mac address-table static 0001.1234.5678.1234
- ❍ B. Switch(config)# mac address-table static 0001.1234.5678.1234 vlan 10 interface fa0/10.
- ❍ C. Switch(config)# interface fa0/10

  Switch(config-if)# mac address-table static 0001.1234.5678.1234 vlan 10
- ❍ D. Switch(config)# interface fa0/10

  Switch(config-if)# mac address-table static 0001.1234.5678.1234 vlan 10 interface fa0/10

Find the Answer p. 67

14. You are a network engineer trying to track down a problematic PC on your network. You have narrowed the location down to it being connected to a layer 2 switch that has 48 devices attached to it. The MAC address of the PC is 0001.1234.5678.1234 What command can you use to locate the switchport the PC is connected to?Choose the best answer.

- ❍ A. show cdp neighbor dynamic address 0001.1234.5678.1234
- ❍ B. show cam dynamic address 0001.1234.5678.1234
- ❍ C. show mac-address-table dynamic address 0001.1234.5678.1234
- ❍ D. show forward-table dynamic address 0001.1234.5678.1234

Find the Answer p. 67

15. What IOS switch command was run to produce the following output?Mac Entries for Vlan 1:---------------------------Dynamic Address Count : 0Static Address Count : 0Total Mac Addresses : 0Mac Entries for Vlan 2:---------------------------Dynamic Address Count : 89Static Address Count : 0Total Mac Addresses : 89Mac Entries for Vlan 580:---------------------------Dynamic Address Count : 600Static Address Count : 0Total Mac Addresses : 600Total Mac Address Space Available: 4810Choose the best answer.

- ❍ A. clear mac-address-table dynamic
- ❍ B. show mac-address-table vlans
- ❍ C. show mac-address-table count
- ❍ D. show mac-address-table entries

Find the Answer p. 67

16. What does the IEEE 802.1d standard define?Choose the best answer.

- ❍ A. Ethernet
- ❍ B. Gigabit Ethernet
- ❍ C. SONET
- ❍ D. STP

Find the Answer p. 67

17. From the perspective of the OSI model, at what layer is 10-Base-T Ethernet different from 100-Base-TX Ethernet?Choose the best answer.

- ❍ A. Layer 4
- ❍ B. Layer 2
- ❍ C. All layers of the OSI model are identical.
- ❍ D. Layer 1

Find the Answer p. 67

18. What is the theoretical throughput of 100-Base-TX full-duplex Ethernet?Choose the best answer.

- ❍ A. 200 Mbps
- ❍ B. 100 Mbps
- ❍ C. 58 Mbps
- ❍ D. 142 Mbps

Find the Answer p. 67

19. 1000-Base-LX/LH with SMF has a maximum transmission distance of what?Choose the best answer.

- ❍ A. 550 meters
- ❍ B. 100 meters
- ❍ C. 10 Km
- ❍ D. 1000 meters

Find the Answer p. 67

20. 10GBASE-SR/SW with 62.5-micron MMF has a maximum transmission distance of what?Choose the best answer.

- ❍ A. 25 meters
- ❍ B. 66 meters
- ❍ C. 50 meters
- ❍ D. 33 meters

Find the Answer p. 67

21. 10-Base-T and 100-Base-TX use which ports of an 8 wire Category 5 UTP cable?Choose the best answer.

- ❍ A. All 8 pins are used for RX and TX.
- ❍ B. Pins 1,2,5 and 6
- ❍ C. Pins 1,2,3 and 6
- ❍ D. Pins 1 and 2
- ❍ E. Pins 7 and 8

Find the Answer p. 67

22. Which of the following is NOT a possible "errdisable" condition configurable on a switch when using the following command: Switch(config)# errdisable detect cause <condition>Choose the best answer.

- ❍ A. rtsp-detection
- ❍ B. arp-inspection
- ❍ C. bpduguard
- ❍ D. channel-misconfig

Find the Answer p. 67

23. Which of the following error disable condition on a switch detects conditions where traffic is seen only passing in one direction?Choose the best answer.

- ❍ A. unicast-flood
- ❍ B. vmps
- ❍ C. udld
- ❍ D. dtp-flap

Find the Answer p. 67

24. A network engineer runs the following command: Switch# show interfaces fastethernet 1/0/1FastEthernet1/0/1 is up, line protocol is upHardware is Fast Ethernet, address is 0009.b7ee.9801 (bia 0009.b7ee.9801)MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,reliability 255/255, txload 1/255, rxload 1/255Which of the following statements below is correct?Choose the best answer.

- ❍ A. The cable on this port has not been detected.
- ❍ B. A device has been physically detected but the switch cannot gather any layer 2 information.
- ❍ C. The port is fully operational on the switch at layers 1 and 2.
- ❍ D. The port is fully operational on the switch at layers 1, 2 and 3.

Find the Answer p. 68

25. A VLAN is best described as which of the following statements?Choose the best answer.

- ❍ A. Separate collision domains
- ❍ B. Separate VTP domains
- ❍ C. Separate STP domains
- ❍ D. Separate broadcast domains

Find the Answer p. 68

26. What configuration tool is a Cisco proprietary protocol called that negotiates a common trunk mode between two switches?Choose the best answer.

- ❍ A. VTP
- ❍ B. DTP
- ❍ C. CEF
- ❍ D. VID

Find the Answer p. 68

27. You are troubleshooting a problem between two switches and issue the following show command and look at the output.Switch# show interface gigabitethernet 0/1 trunkPort Mode Encapsulation Status Native vlanGi1/1 desirable 802.1q not-trunking 100Port Vlans allowed on trunkGi1/1 100Port Vlans allowed and active in management domainGi1/1 100Port Vlans in spanning tree forwarding state and not prunedGi1/1 noneWhat could the problem be?Choose the best answer.

- ❍ A. The port on the other switch is configured for DTP dynamic desirable mode.
- ❍ B. The port on the other switch is configured for DTP trunk mode.
- ❍ C. The port on the other switch is configured as an access port.
- ❍ D. The port on the other switch is configured for DTP dynamic mode.

Find the Answer p. 68

28. A network administrator wants to see a trunks administrative mode verses the operational mode when using dynamic trunking on port gi0/1. What show command should they issue?Choose the best answer.

- ❍ A. Switch# show interface gi0/1 switchport
- ❍ B. Switch# show interface gi0/1
- ❍ C. Switch# show interface gi0/1 brief
- ❍ D. Switch# show interface trunk gi0/1

Find the Answer p. 68

29. By default, what VTP mode is a switch in?Choose the best answer.

- ❍ A. Client
- ❍ B. Server
- ❍ C. Pruned
- ❍ D. Transparent

Find the Answer p. 68

30. Which VTP mode forwards advertisements but does not process them?Choose the best answer.

- ❍ A. VTP Client v2
- ❍ B. VTP Transparent v2
- ❍ C. VTP Client v1
- ❍ D. VTP Transparent v1

Find the Answer p. 68

31. When VTP starts up for the first time on a switch, what configuration revision number does it have?Choose the best answer.

- ❍ A. 0
- ❍ B. 1
- ❍ C. Any number 0-16384 that is configured manually.
- ❍ D. Any number 0-32768 that is configured manually.

Find the Answer p. 68

32. Which of the following is NOT a way to reset the VTP configuration revision number on a switch?Choose the best answer.

- ❍ A. Change the mode to VTP transparent, and then back to either client or server.
- ❍ B. Change the VTP domain name to something different. Then change it back to what it should be.
- ❍ C. Reboot the switch.
- ❍ D. Delete the vlan.dat file and then reboot the switch.

Find the Answer p. 68

33. After a VLAN configuration change has been made (such as adding or deleting a VLAN), VTP servers send which type of advertisement to other listening VTP devices in the same domain?Choose two

- ❑ A. Summary Advertisement.
- ❑ B. Advertisement Requests.
- ❑ C. Hello Advertisements.
- ❑ D. Subset Advertisements.

Find the Answer p. 68

34. A network engineer wants to enable VTP on 10 switches. What VTP information does NOT need to match on each switch to have VTP work on all devices?Choose the best answer.

- ❍ A. Domain Name
- ❍ B. VTP password
- ❍ C. VTP version
- ❍ D. VTP operational mode

Find the Answer p. 68

35. A network engineer needs to verify the number of transmitted and received VTP packets. What show command should they use?Choose the best answer.

- ❍ A. show vtp counters
- ❍ B. show vtp status
- ❍ C. show vtp brief
- ❍ D. show cdp neighbors

Find the Answer p. 68

36. VTP Pruning has been embedded globally on a switch. An engineer wants to remove pruning functionality for all VLANS on fa0/2. What command accomplishes this goal?Choose the best answer.

- ❍ A. Switch(config-if)# switchport trunk pruning vlan remove
- ❍ B. Switch(config-if)# no vtp pruning interfacd fa0/2
- ❍ C. Switch(config)# switchport trunk pruning vlan remove fa0/2
- ❍ D. Switch(config)# no vtp pruning interface fa0/2

Find the Answer p. 68

37. By default, what VLANs are eligible for use with VTP pruning?Choose the best answer.

- ❍ A. 1-1005
- ❍ B. 2-1001
- ❍ C. 1-4095
- ❍ D. 1-1001, 1006-4095

Find the Answer p. 68

38. When aggregating links on a Cisco switch, you can aggregate between how many links?Choose the best answer.

- ❍ A. 1 to 6 links
- ❍ B. 2-10 links
- ❍ C. 2-10 links in pairs of 2
- ❍ D. 2-8 links
- ❍ E. 2-6 links in pairs of 2

Find the Answer p. 68

39. A network engineer has just restored a physical layer problem on one of the links on a 4 port aggregated trunk. What step does the engineer need to do to insure that the restored link will become part of the EtherChannel again?Choose the best answer.

- ❍ A. Perform a shutdown and no shutdown on the newly restored link.
- ❍ B. Reconfigure EtherChannel on the newly restored link.
- ❍ C. Make sure the link is set for full-duplex mode.
- ❍ D. The link will automatically restore on its own.

Find the Answer p. 68

40. Which of the following types and link numbers is appropriate for a single EtherChannel?Choose the best answer.

- ❍ A. Five - 10Mbps Ethernet links
- ❍ B. Two - 100 Mbps Ethernet links and Three 1000 Mbps Ethernet links
- ❍ C. Two - 10 Mbps Ethernet links and Two 1000 Mbps Ethernet links
- ❍ D. Two - 100 Mbps Ethernet links and Two 1000 Mbps Ethernet links

Find the Answer p. 68

41. Which of the following is NOT an EtherChannel configuration setting that must match all links in a bundle?Choose the best answer.

- ❍ A. Belong to the same native VLAN
- ❍ B. Identical speed and duplex settings
- ❍ C. Identical Spanning-Tree settings
- ❍ D. Channelized ports must be sequential. For example, you can aggregate ports fa0/1, fa0/2, fa0/3 and fa0/4 but you cannot aggregate fa0/1, fa0/2, fa0/3 and fa0/48.
- ❍ E. Identical trunking mode
- ❍ F. Pass the same VLANs

Find the Answer p. 68

42. An administrator has configured an EtherChannel bundle consisting of four links. How many bits are used in the XOR hash value to calculate which link the switch uses to pass frames through?Choose the best answer.

- ❍ A. 1 bit
- ❍ B. 2 bits
- ❍ C. 3 bits
- ❍ D. 4 bits

Find the Answer p. 68

43. A network engineer is reviewing an EtherChannel configuration. He sees this configuration listed:port-channel load-balance src-dest-ipBased on this, what hash input and operation are used?Choose the best answer.

- ❍ A. Hash input: source IP, destination IP and source MAC.

  Hash operation: bits
- ❍ B. Hash input: source IP, destination IP, source MAC and destination MAC.

  Hash operation: XOR
- ❍ C. Hash input: source IP and destination IP

  Hash operation: XOR
- ❍ D. Hash input: source IP, destination IP, and destination MAC.

  Hash operation: bits

Find the Answer p. 68

44. A network engineer wants to see how well the load-balancing distribution method is working on an EtherChannel. They issue the following command and look at the output:Switch# show etherchannel 42 port-channelPort-channels in the group:----------Port-channel: Po42 (Primary Aggregator)----------Age of the Port-channel = 0d:21h:28m:22sLogical slot/port = 14/42 Number of ports = 3HotStandBy port = nullPort state = Port-channel Ag-InuseProtocol = LACPFast-switchover = disabledLoad share deferral = disabledStandalone Disable = enabledPorts in the Port-channel:Index Load Port EC state No of bits------+------+------------+-----------------+-----------2 49 Fa1/18 Active 31 92 Fa1/19 Active 33 24 Fa1/20 Active 2Time since last port bundled: 0d:03h:37m:07s Fa1/18Time since last port Un-bundled: 0d:03h:34m:27s Fa1/17Last applied Hash Distribution Algorithm: FixedWhat can the engineer use to determine how well the EtherChannel is balancing traffic?Choose the best answer.

- ❍ A. The "Load" column lists the amount of traffic in percent format.
- ❍ B. The "Load" column lists the amount of traffic in hex format.
- ❍ C. The "Load" column lists the amount of traffic in binary format.
- ❍ D. This command cannot be used to determine the individual link proportion of traffic is load balanced on EtherChannel links.

Find the Answer p. 68

45. A network engineer is configuring LACP using 2 links. The priority for both links looks like this.lacp system-priority 100Which interface becomes the LACP decision maker?Choose the best answer.

- ❍ A. If the priority is the same on all links, they both can make decisions.
- ❍ B. The link with the lowest interface number becomes the LACP decision maker.
- ❍ C. The link with the highest MAC address becomes the LACP decision maker.
- ❍ D. The link with the lowest MAC address becomes the LACP decision maker.
- ❍ E. The link with the lowest interface number becomes the LACP decision maker.

Find the Answer p. 68

46. A network engineer wants to verify the EtherChannel mode being used on an aggregated link. What is the best show command for this task?Choose the best answer.

- ❍ A. show etherchannel summary
- ❍ B. show pagp summary
- ❍ C. show lacp summary
- ❍ D. show etherchannel port

Find the Answer p. 68

47. You are troubleshooting an EtherChannel problem and want to see when changes occurred on the aggregated link. What show command should you use?Choose the best answer.

- ❍ A. Show etherchannel summary
- ❍ B. show etherchannel port
- ❍ C. show etherchannel port-channel
- ❍ D. show etherchannel detail

Find the Answer p. 68

48. By default, STP BPDU's are sent every ____ seconds.Choose the best answer.

- ❍ A. five
- ❍ B. ten
- ❍ C. two
- ❍ D. thirty

Find the Answer p. 68

49. How does a switch identify BPDU's?Choose the best answer.

- ❍ A. All switches send BPDU's with a well-known destination MAC address.
- ❍ B. The BPDU is sent with a well-known multicast address.
- ❍ C. The BPDU is sent with a special VLAN tag.
- ❍ D. The BPDU is encapsulated with a special tag identifier.

Find the Answer p. 69

50. Which of the following are the two different types of BPDU?Choose two.

- ❑ A. Used to detect layer 2 misconfigurations.
- ❑ B. Used to detect layer 1 and 2 errors on the network.
- ❑ C. Used for initial STP calculations.
- ❑ D. Used to announce changes on the network.

Find the Answer p. 69

51. The STP bridge priority is what by default?Choose the best answer.

- ❍ A. 1
- ❍ B. 0
- ❍ C. 32,768
- ❍ D. 8,192

Find the Answer p. 69

52. What is the updated STP path cost for 1 Gbps links since they became available?Choose the best answer.

- ❍ A. 2
- ❍ B. 1
- ❍ C. 10
- ❍ D. 4

Find the Answer p. 69

53. STP defines how many designated ports per network segment?Choose the best answer.

- ❍ A. Maximum of 2.
- ❍ B. Minimum of 1.
- ❍ C. 1
- ❍ D. Minimum of 2.

Find the Answer p. 69

54. What STP port state cannot send or receive data frames but it can send and receive BPDUsChoose the best answer.

- ❍ A. Blocking
- ❍ B. Listening
- ❍ C. Learning
- ❍ D. Disabled

Find the Answer p. 69

55. Looking at the following output of a show command, what type of link is this?Vlan Port ID Designated Port IDName Prio.Nbr Cost Sts Cost Bridge ID Prio.Nbr---------- ---------- ---------- ---------- -------- --------VLAN0001 128.1 19 FWD 0 32768 00d0.5849.4100 32.129Choose the best answer.

- ❍ A. FastEthernet
- ❍ B. 10-Base-T Ethernet
- ❍ C. Gigabit Ethernet
- ❍ D. The link type cannot be determined from the information given.

Find the Answer p. 69

56. What is the default STP forward delay timer?Choose the best answer.

- ❍ A. Two seconds
- ❍ B. Six seconds
- ❍ C. 30 seconds
- ❍ D. 15 seconds

Find the Answer p. 69

57. What type of STP has 1 instance of STP over the native VLAN?Choose the best answer.

- ❍ A. PVST
- ❍ B. 802.1d
- ❍ C. PVST+
- ❍ D. CST

Find the Answer p. 69

58. What STP type can operate over ISL and 802.1q trunks?Choose the best answer.

- ❍ A. CST
- ❍ B. PVST+
- ❍ C. PVST
- ❍ D. CST+

Find the Answer p. 69

59. By default, STP is what?Choose the best answer.

- ❍ A. Enabled for all active VLANs and on all ports of a switch.
- ❍ B. Enabled for all VLANs and on all ports of a switch.
- ❍ C. Enabled for all active VLANs and but an engineer needs to enable it on any switchport that requires it by issuing the switchport mode access command.
- ❍ D. Disabled by default. To enable STP, issue the spanning-tree vlan <vlan-ID> command on all switchports.

Find the Answer p. 69

60. When designing a layer 2 network that uses STP, why is it important for the network engineer to carefully choose which switch is the root bridge?Choose two

- ❑ A. The root bridge should be an access-layer switch.
- ❑ B. A slow or unreliable switch could be elected as the root bridge.
- ❑ C. You should choose a root bridge switch that has a well defined backup switch.
- ❑ D. You should choose a switch that has both layer 2 and layer 3 capabilities.

Find the Answer p. 69

61. To properly setup STP for redundancy, what two things should you design and configure?Choose two.

- ❑ A. Specifically choose and configure one switch as a root bridge in a determined fashion.
- ❑ B. Let STP automatically choose the root switch.
- ❑ C. Let STP automatically choose the secondary root switch once a root switch has been manually chosen.
- ❑ D. Let STP automatically choose the secondary root switch.
- ❑ E. Specifically choose and configure one switch as a secondary root switch in a determined fashion.

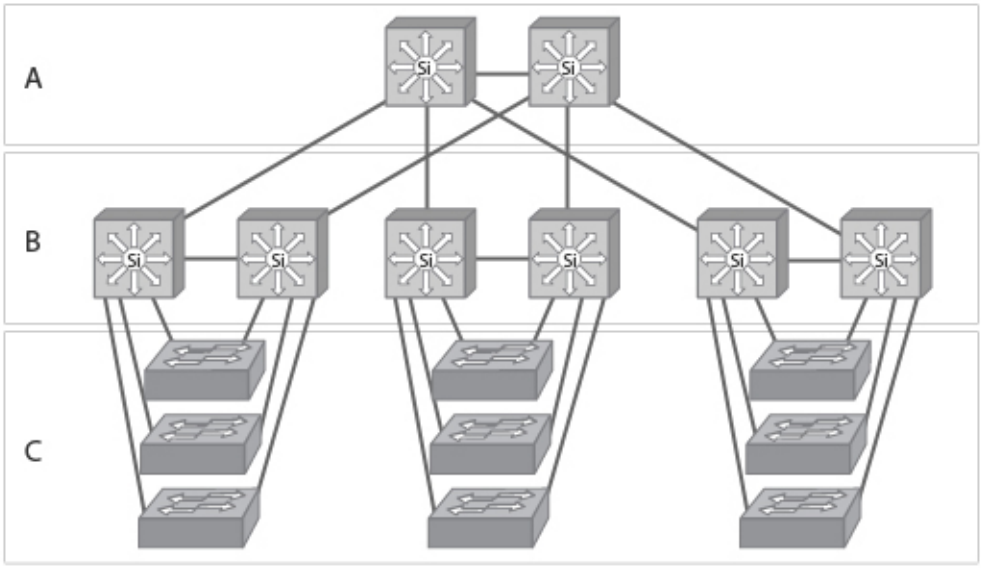
Find the Answer p. 69

62. Look at the following diagram. What location would be the best place to locate an STP root bridge and secondary bridge?Choose the best answer.

- ❍ A. Section A
- ❍ B. Section B
- ❍ C. Section C
- ❍ D. Section D

Find the Answer p. 69

Exhibit(s):



63. What does the following command do?Spanning-tree vlan 128 root primaryChoose the best answer.

- ❍ A. Modifies the MAC address of the switch so it is more likely to become the root bridge.
- ❍ B. Modifies a switches bridge priority value to become less than the bridge priority of the current root bridge.
- ❍ C. Sets the priority of all VLANs configured on the switch to 128.
- ❍ D. Modifies the switch for VLAN 128 so that it never becomes the root bridge.

Find the Answer p. 69

64. What is the default STP priority value?Choose the best answer.

- ❍ A. 10
- ❍ B. 16384
- ❍ C. 24576
- ❍ D. 32768
- ❍ E. 19

Find the Answer p. 69

65. A network engineer wants to see the STP priority value of VLAN 10 on a switch they are consoled into. Look at the following show command output:Switch# show spanning-tree vlan 10VLAN0100Spanning tree enabled protocol ieeeRoot ID Priority 4200Address 000b.5f65.1f80Cost 4Port 1 (GigabitEthernet0/1)Hello Time 2 sec Max Age 20 sec Forward Delay 15 secBridge ID Priority 32778 (priority 32778 sys-id-ext 10)Looking at this information, what do we know about the priority value?Choose the best answer.

- ❍ A. The STP priority has been manually modified from the default 32768 to become 32778.
- ❍ B. Extended system-ID is not being used.
- ❍ C. Extended system-ID is enabled.
- ❍ D. This switch has been configured with the following command:

  Spanning-tree vlan 10 root secondary

Find the Answer p. 69

66. A network engineer wants to set a switch to be the root bridge for VLAN 100. They issue the following command and get a "Failed" response as shown here.Switch(config)# spanning-tree vlan 100 root primary% Failed to make the bridge root for vlan 100% It may be possible to make the bridge root by setting the priority% for some (or all) of these instances to zero.Switch(config)#Why did this failure occur?Choose the best answer.

- ❍ A. You must reboot all the switches in the network participating in STP for VLAN 100.
- ❍ B. STP has been disabled on VLAN 100.
- ❍ C. Another switch is already the root bridge and has a lower priority than 24576.
- ❍ D. STP must be restarted by disabling it and then re-enabling it for VLAN 100.

Find the Answer p. 69

67. A network engineer wants to configure a FastEthernet link to make it more desirable to be chosen as the STP forwarding path for VLAN 3. Which command below accomplishes this goal?Choose the best answer.

- ❍ A. Spanning-tree vlan 3 cost 50
- ❍ B. Spanning-tree vlan 3 cost 10
- ❍ C. Spanning-tree vlan 3 primary
- ❍ D. spanning-tree vlan 3 root primary

Find the Answer p. 69

68. STP uses three different timers for proper operation. Which of the following is NOT one of those timers?Choose the best answer.

- ❍ A. Hello timer
- ❍ B. Max-age timer
- ❍ C. Hold-down timer
- ❍ D. Forward-time

Find the Answer p. 69

69. What IOS command configures the STP hello timer to be lower than the default setting?Choose the best answer.

- ❍ A. Switch(config)# spanning-tree max-age 1
- ❍ B. Switch(config)# spanning-tree hello-time 3
- ❍ C. Switch(config)# spanning-tree max-age 4
- ❍ D. Switch(config)# spanning-tree hello-time 1

Find the Answer p. 69

70. What STP method allows for faster failover on access-layer switches when there are dual links to the distribution layer?Choose the best answer.

- ❍ A. PortFast
- ❍ B. BPDU guard
- ❍ C. BackboneFast
- ❍ D. UplinkFast

Find the Answer p. 69

71. Which two configurations can be used to prepare a switchport for a user PC?Choose two.

- ❑ A. Switch(config-if)# switchport host
- ❑ B. Switch(config-if)# switchport mode access

  Switch(config-if)# spanning-tree portfast
- ❑ C. Switch(config-if)# switchport access
- ❑ D. Switch(config-if)# switchport mode access

  Switch(config-if)# spanning-tree uplinkfast

Find the Answer p. 69

72. What STP convergence method is used in the core to shorten convergence times?Choose the best answer.

- ❍ A. UplinkFast
- ❍ B. PortFast
- ❍ C. BackboneFast
- ❍ D. RSTP

Find the Answer p. 69

73. What show command can be used to show the bridge ID and STP timers on a local switch?Choose the best answer.

- ❍ A. show spanning-tree interface <interface-ID>
- ❍ B. show spanning-tree summary
- ❍ C. show spanning-tree bridge
- ❍ D. show spanning-tree uplinkfast

Find the Answer p. 69

74. A network engineer enables uplinkfast on a switch. What two changes to STP are made automatically?Choose two.

- ❑ A. The bridge priority is raised.
- ❑ B. The bridge priority is lowered.
- ❑ C. The port cost of all local switch ports is lowered.
- ❑ D. The port cost of all local switch ports is raised.

Find the Answer p. 70

75. What type of STP port are candidate root ports that are placed in a blocking state?Choose the best answer.

- ❍ A. Designated port
- ❍ B. Root port
- ❍ C. Alternate port
- ❍ D. Backup port
- ❍ E. Redundant port

Find the Answer p. 70

76. What is the purpose of the STP root guard command?Choose the best answer.

- ❍ A. It controls the BPDU message information propagated from root bridges.
- ❍ B. It's a security feature to disable the uplink when a downstream switch malfunctions causing a layer 2 loop.
- ❍ C. It controls where candidate root bridges can be connected and found on a network.
- ❍ D. A feature where switch ports are immediately placed into a forwarding state as soon as the link comes up.

Find the Answer p. 70

77. Which command listed below configures STP root guard on a link?Choose the best answer.

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

Find the Answer p. 70

78. What two STP features that help detect or prevent the unexpected loss of BPDUs that could cause layer 2 loops?Choose two.

- ❑ A. BPDU guard
- ❑ B. Portfast
- ❑ C. Loop guard
- ❑ D. Root port
- ❑ E. UDLD

Find the Answer p. 70

79. Given the following answers, where would loop guard be configured to block?Choose the best answer.

- ❍ A. On a per-VLAN basis.
- ❍ B. On a per-port basis.
- ❍ C. On access ports only.
- ❍ D. On a per-trunk basis.

Find the Answer p. 70

80. When configuring UDLD on a link, there are two different options, which option only notifies support staff in the form of a log message?Choose the best answer.

- ❍ A. Passive mode
- ❍ B. Logging mode
- ❍ C. Aggressive mode
- ❍ D. Normal mode

Find the Answer p. 70

81. What command disables BPDUs from being sent or processed on a single switchport?Choose the best answer.

- ❍ A. Switch(config-if)# spanning-tree portfast
- ❍ B. Switch(config)# spanning-tree portfast
- ❍ C. Switch(config-if)# spanning-tree bpdu filter enable
- ❍ D. Switch(config)# spanning-tree portfast bpdufilter default

Find the Answer p. 70

82. What is RSTP?Choose the best answer.

- ❍ A. An IEEE 802.1w standard that takes standard STP and makes convergence faster.
- ❍ B. A Cisco proprietary technology that takes standard STP and makes convergence faster.
- ❍ C. An IEEE 802.1d standard that takes standard STP and makes convergence slower.
- ❍ D. A Cisco proprietary technology that eliminates the need for port blocking.

Find the Answer p. 70

83. Can RSTP and STP run concurrently?Choose the best answer.

- ❍ A. The two protocols are incompatible
- ❍ B. Running both is necessary on newer layer 2 switches.
- ❍ C. The two protocols are compatible
- ❍ D. Running two protocols provides an alternative to routing protocols

Find the Answer p. 70

84. What RSTP port type describes a port that connects to another switch and becomes a designated port?Choose the best answer.

- ❍ A. Edge port
- ❍ B. Uplink port
- ❍ C. Point-to-point port
- ❍ D. Root port

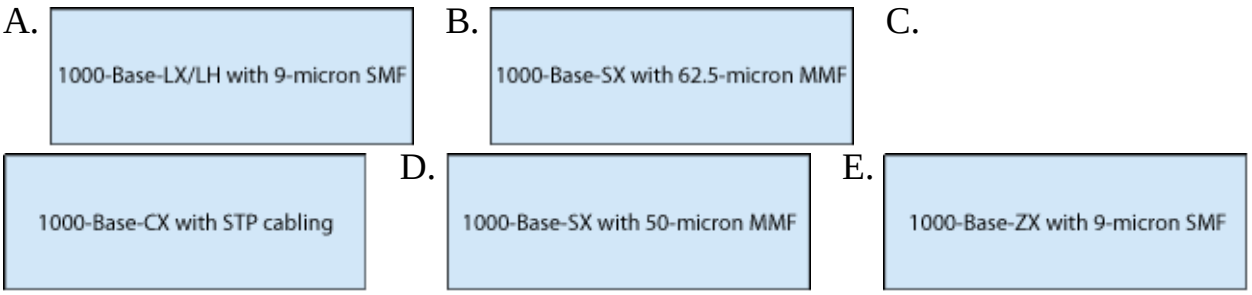
Find the Answer p. 70

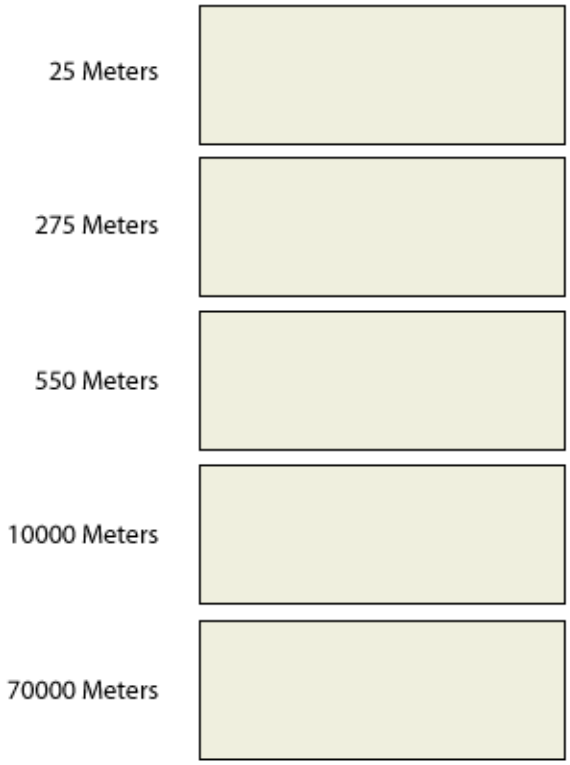
85. What type of spanning-tree can map several VLANs with the same topology to a single instance of STP?Choose the best answer.

- ❍ A. PVST
- ❍ B. PVST+
- ❍ C. CST
- ❍ D. MST

Find the Answer p. 70

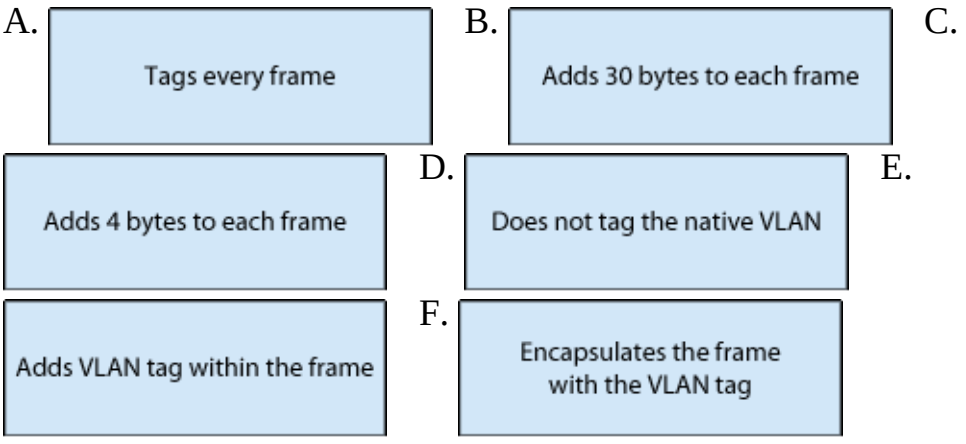
86. Match the GigabitEthernet type and wiring type listed on the left with the maximum distance on the right.

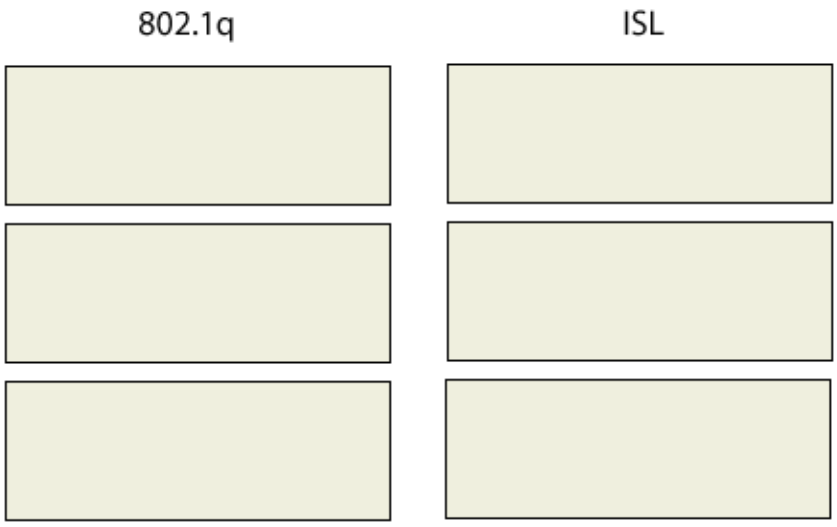




Detailed Explanation p. 107

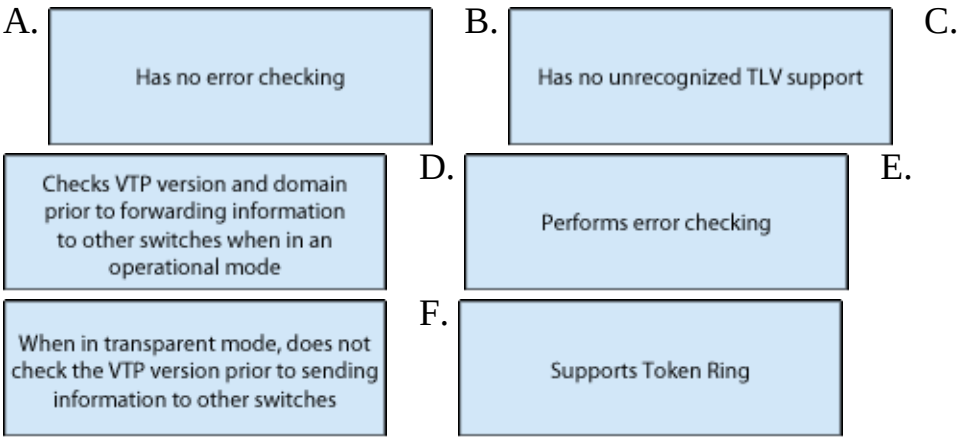
87. Drag the trunk characteristic on the left to one of two columns on the right that best describe the trunking technology.

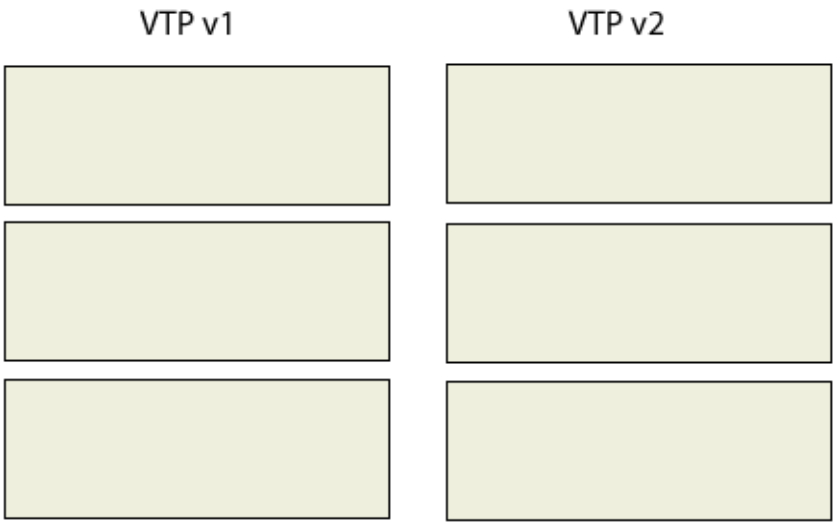




Detailed Explanation p. 108

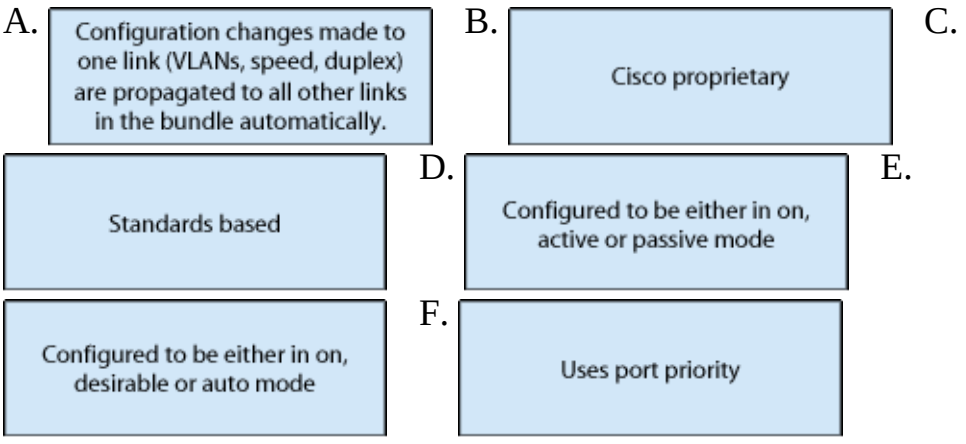
88. Drag the VTP version differences listed to one of the two VTP version columns on the right. Place the differences under the version that it best describes.

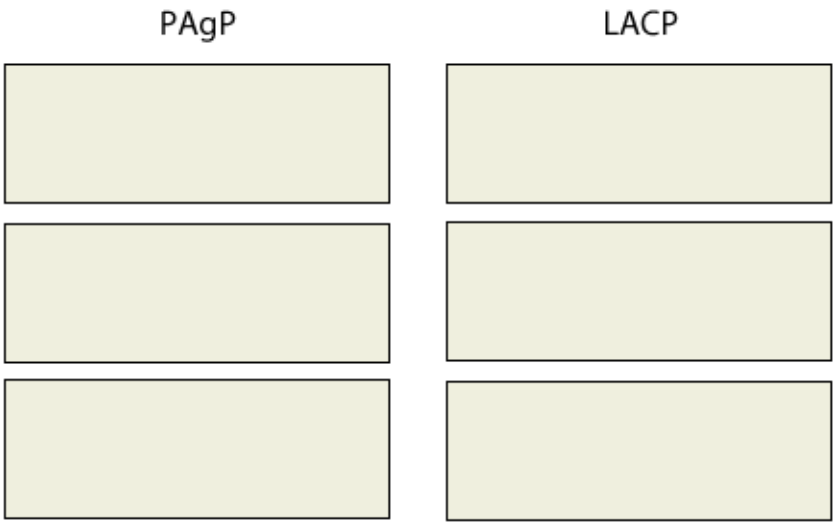




Detailed Explanation p. 109

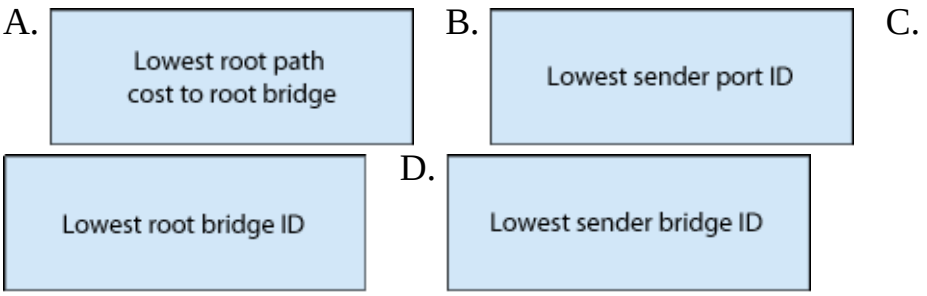
89. Drag the link aggregation characteristics on the left to one of the methods on the right that best describe it.

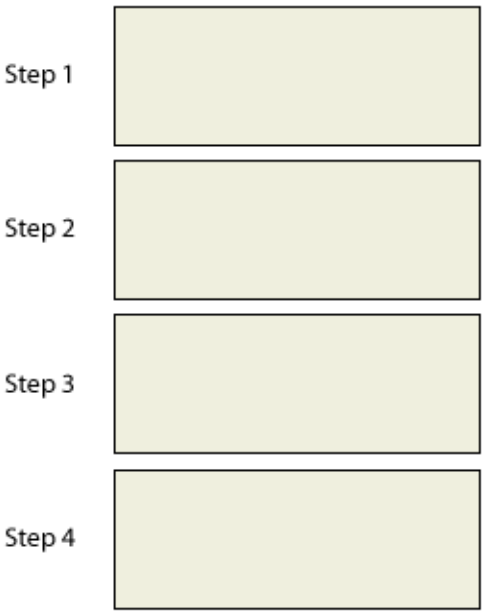




Detailed Explanation p. 110

90. Drag the STP decisions on the left to the correct order of execution on the right.





Detailed Explanation p. 110

91. Drag the STP criteria for choosing a loop-free path on a network to the order of sequence the switch uses.

A. Lowest sender bridge ID

B. Lowest root path cost

C.

Lowest sender port ID

D. Lowest bridge ID

Step 1

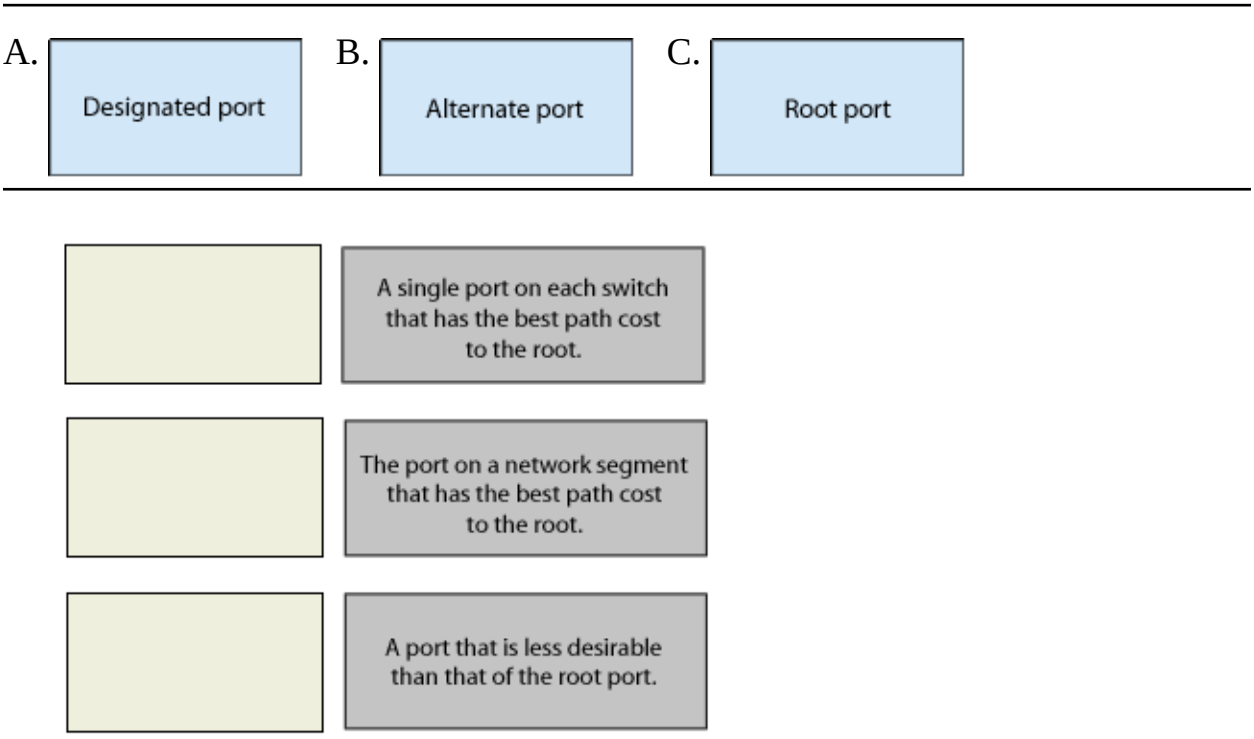
Step 2

Step 3

Step 4

Detailed Explanation p. 111

92. Drag the RSTP port states listed on the left to the description on the right that best describes it.



Detailed Explanation p. 112

Chapter 2
Implement Switch based Layer 3 services, given a network design and a set of requirements

1. What is the best description of route-cache switching?Choose the best answer.

   - ❍ A. Route once and switch many.
   - ❍ B. Route layer 3 and switch layer 2.
   - ❍ C. Route once and cache many.
   - ❍ D. Route once and distribute many.

Find the Answer p. 71

2. A CEF-capable switch consists of two functional blocks. What are they?Choose two.

   - ❑ A. Layer 3 engine
   - ❑ B. TCAM
   - ❑ C. Layer 2 forwarding engine
   - ❑ D. Layer 3 forwarding engine

Find the Answer p. 71

3. What is the name of the part of the FIB that contains a list of MAC addresses of the devices that can be reached in a single Layer 2 hop?Choose the best answer.

   - ❍ A. Adjacency table
   - ❍ B. CAM table
   - ❍ C. TCAM table
   - ❍ D. Routing table

Find the Answer p. 71

4. A network engineer issues the following command and investigates the output.Switch# show adjacency vlan 99 detailProtocol Interface AddressIP Vlan10 192.168.1.100(5)0 packets, 0 bytes000A5E45B145000E387D51000800ARP 01:59:30Epoch: 0IP Vlan10 192.168.1.101(5)1 packets, 104 bytes000CF1C909A0000E387D51000800ARP 08:02:11Epoch: 0What is the MAC address of the device with the IP address of 192.168.1.101?Choose the best answer.

   - ❍ A. 387D51000800
   - ❍ B. 000CF1C909A0
   - ❍ C. The MAC address cannot be determined from this information.
   - ❍ D. 000CF1C909A0000E387D51000800

Find the Answer p. 71

5. If an ARP entry does not exist in the CEF adjacency table, the FIB entry is marked as what?Choose the best answer.

   - ❍ A. CEF glean
   - ❍ B. CEF absent
   - ❍ C. ARP glean
   - ❍ D. ARP absent

Find the Answer p. 71

6. When viewing the CEF adjacency table, you see a listing for a punt adjacency. What best describes it below?Choose the best answer.

   - ❍ A. Switches packets destined for the null interface.
   - ❍ B. Switches packets that can't be forwarded normally and are dropped.
   - ❍ C. Used when packets are discarded because of an access list or other policy action.
   - ❍ D. Used when packets need to be sent to the Layer 3 engine for additional processing.

Find the Answer p. 71

7. What is a valid reason for disabling CEF on a MLS switch?Choose the best answer.

- ❍ A. To improve MLS switching speeds on non-Ethernet networks.
- ❍ B. For debugging purposes.
- ❍ C. To improve MLS switching speeds on serial links t1 speeds and below.
- ❍ D. If your network uses layer 3 redundancy techniques such as HSRP or GLBP.

Find the Answer p. 71

8. A switch is configured with 3 VLANs that are trunked to a single FastEthernet connection on a router. What type of InterVLAN routing setup is this?Choose the best answer.

- ❍ A. Multi-layer switch
- ❍ B. Route switch processor
- ❍ C. Router-on-a-stick
- ❍ D. Cisco Express Forwarding

Find the Answer p. 71

9. When a CEF packet rewrite occurs, what happens to the source and destination IP addresses?Choose the best answer.

- ❍ A. They are rewritten to be the source IP of the router and the next-hop destination IP.
- ❍ B. The source IP is rewritten to be the source IP of the router but the destination IP remains the same.
- ❍ C. The source IP remains the same and the source IP is rewritten to be the next hop destination IP.
- ❍ D. Nothing happens to the source and destination IP addresses.

Find the Answer p. 71

Chapter 3
Implement High Availability, given a network design and a set of requirements

1. Access layer switches should have all of the following characteristics EXCEPT what?Choose the best answer.

   - ❍ A. Low cost per switch port
   - ❍ B. Scalable uplinks
   - ❍ C. Large Layer 3 throughput capacity.
   - ❍ D. Client functions such as VLANs, traffic and protocol filtering, and QoS.

   Find the Answer p. 72

2. What layer of the three-tiered model is usually discouraged from any kind of packet filtering?Choose the best answer.

   - ❍ A. Internet Edge
   - ❍ B. Core
   - ❍ C. Access
   - ❍ D. Distribution

   Find the Answer p. 72

3. Cisco recommends putting a limit on the maximum number of users on a single switch block. What is that maximum number?Choose the best answer.

   - ❍ A. 8000
   - ❍ B. 254
   - ❍ C. 1024
   - ❍ D. 5000
   - ❍ E. 2000

   Find the Answer p. 72

4. If possible, a switch block capacity should be based on what two factors?Choose two.

- ❑ A. Number of devices requiring DHCP resources.
- ❑ B. Traffic types and behavior.
- ❑ C. Size and number of workgroups.
- ❑ D. Number of 802.11a/b/g devices.
- ❑ E. If data will be packet-switched or circuit-switched.

Find the Answer p. 72

5. Where does a broadcast domain exist within a switched network that has multiple VLANs?Choose the best answer.

- ❍ A. One broadcast domain on every switchport.
- ❍ B. One broadcast domain on each switch.
- ❍ C. On every STP instance.
- ❍ D. On each VLAN.

Find the Answer p. 72

6. Why is it important to carefully design a network according to a hierarchical design methodology?Choose the best answer.

- ❍ A. To simplify security policies.
- ❍ B. To segment administrative support roles.
- ❍ C. So the network can be fully redundant.
- ❍ D. To make the network predictable and scalable in the future.

Find the Answer p. 72

7. How many distribution switches should be in every switch block according to best practices?Choose the best answer.

- ❍ A. 4
- ❍ B. 2
- ❍ C. 1
- ❍ D. 8

Find the Answer p. 72

8. What type of core design commonly is found in smaller networks, where a separate core layer is not necessary?Choose the best answer.

- ❍ A. Dual core
- ❍ B. Distribution core
- ❍ C. Layered core
- ❍ D. Collapsed core

Find the Answer p. 72

9. Which of the following does not function on layer 3?Choose the best answer.

- ❍ A. HSRP
- ❍ B. VRRP
- ❍ C. RSTP
- ❍ D. GLBP

Find the Answer p. 72

10. How does HSRP send hello packets?Choose the best answer.

- ❍ A. In unicast messages destined to neighbors learned through static routes or dynamic routing protocols.
- ❍ B. In broadcast messages
- ❍ C. In multicast messages
- ❍ D. Inside each IP header

Find the Answer p. 72

11. What are HSRP group numbers?Choose the best answer.

- ❍ A. Based on the VLAN ID.
- ❍ B. Globally significant on a network.
- ❍ C. Any number between 1 and 1024.
- ❍ D. An arbitrary number that is locally significant.

Find the Answer p. 72

12. HSRP election is based on priority. One router is configured with a priority of 100. You want to configure your router to become the active router. What is the correct configuration to accomplish your goal?Choose the best answer.

- ❍ A. Switch(config-if)# standby 1 priority 200
- ❍ B. Switch(config-if)# standby 1 priority 50
- ❍ C. Switch(config)# standby 1 priority 200
- ❍ D. Switch(config)# standby 1 priority 50

Find the Answer p. 72

13. When modifying HSRP timer settings, what should the holddown timer always be set to?Choose the best answer.

- ❍ A. One half the timer setting of the hello timer.
- ❍ B. One third the timer setting of the hello timer.
- ❍ C. Three times the timer setting of the hello timer.
- ❍ D. Two times the timer setting of the hello timer.

Find the Answer p. 72

14. HSRP has a mechanism for detecting link failures and gives other HSRP routers the opportunity to take over the active role. What is this called?Choose the best answer.

- ❍ A. HSRP monitoring
- ❍ B. HSRP tracking
- ❍ C. Standby group
- ❍ D. Standby Preempt

Find the Answer p. 72

15. HSRP creates a virtual Layer 3 IP address shared between HSRP peer routers. In addition, a virtual MAC address must be shared. What does this MAC address look like?Choose the best answer.

- ❍ A. The MAC address is always in the form of 0000.0c07.acXX, where XX represents the HSRP group number as a two-digit hex value.
- ❍ B. The MAC address is always in the form of 0000.0c07.acXX, where XX represents the last 2 digits of the layer 3 virtual IP address shared between HSRP peers.
- ❍ C. The MAC address is always in the form of 0000.0c07.aXXX, where XXX represents the last 2 digits of the layer 3 virtual IP address shared between HSRP peers.
- ❍ D. The MAC address is always in the form of 0000.0c07.acXX, where XX represents the last 2 digits of the VLAN number associated with the IP subnet.

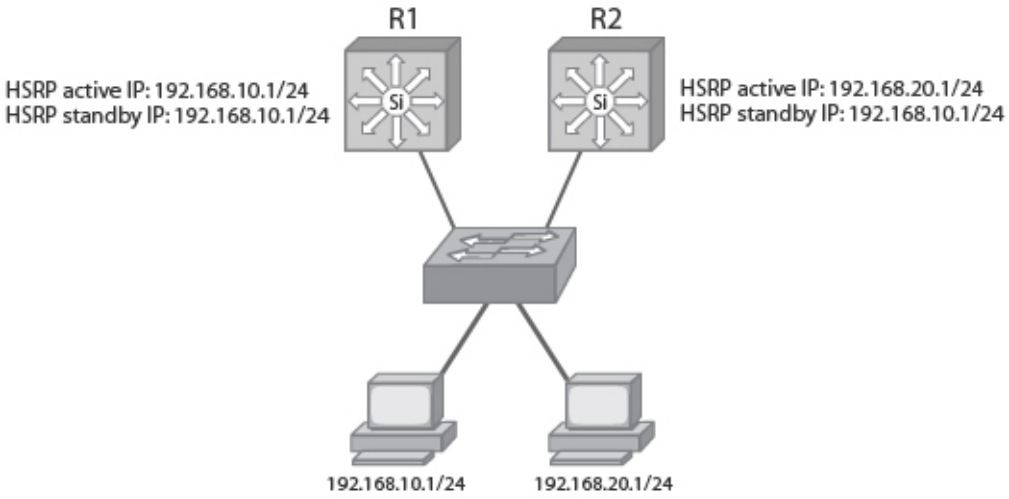
Find the Answer p. 72

16. You are designing a typical gateway redundant network using HSRP as shown in the diagram. You currently have two VLANs and want to utilize both distribution switches. How can you load balance traffic across both distribution switches using HSRP?Choose the best answer.

- ❍ A. Set HSRP to preempt only on R1.
- ❍ B. Configure gateway 1 to always prefer to be active on R1 and gateway 2 to always prefer to be active on R2.
- ❍ C. Set HSRP to preempt only on R2.
- ❍ D. Set HSRP to preempt on both R1 and R2.

Find the Answer p. 72

Exhibit(s):



17. How do you configure a VRRP router to preempt in order to attempt to become the master?Choose the best answer.

- ❍ A. By default, all VRRP routers are configured to preempt.
- ❍ B. Switch(config-if)# vrrp preempt
- ❍ C. Switch(config)# vrrp preempt
- ❍ D. Switch(config-if)# vrrp preempt 10

Find the Answer p. 72

18. How is the Active Virtual Gateway (AVG) router chosen when configuring GLBP?Choose the best answer.

- ❍ A. The routers compare and choose the highest priority value first and if they are identical, it chooses the router with the highest IP address in the group.
- ❍ B. The routers compare and choose the highest priority value first and if they are identical, it chooses the router with the highest MAC address in the group.
- ❍ C. The routers compare and choose the lowest priority value first and if they are identical, it chooses the router with the highest IP address in the group.
- ❍ D. The routers compare and choose the lowest priority value first and if they are identical, it chooses the router with the highest MAC address in the group.

Find the Answer p. 72

19. By default, GLBP sends hello messages to monitor the peer router. How often are they sent?Choose the best answer.

- ❍ A. Every two seconds.
- ❍ B. Every 5 seconds.
- ❍ C. Every second.
- ❍ D. Every three seconds.

Find the Answer p. 72

20. When using GLBP, if a failure occurs on a router set as the virtual forwarder, what happens to clients that still have the old MAC addresses in their local ARP table?Choose the best answer.

- ❍ A. An ARP refresh multicast is sent to all clients to automatically refresh the ARP table.
- ❍ B. The client must refresh its ARP cache by itself.
- ❍ C. An ARP refresh broadcast is sent to all clients on the subnet to automatically refresh the ARP table.
- ❍ D. An ARP refresh unicast is sent to all clients contained in the routers local ARP table to automatically refresh the clients' local ARP table.

Find the Answer p. 72

21. Which of the following is NOT a GLBP load-balancing method?Choose the best answer.

- ❍ A. Weighted
- ❍ B. Dynamic
- ❍ C. Round robin
- ❍ D. Host dependent

Find the Answer p. 72

22. GLBP reacts to router failures by doing what?Choose the best answer.

- ❍ A. The peer router uses it's own MAC address to respond to clients of the failed gateway.
- ❍ B. The peer router discards it's own MAC address and instead uses the downed peer's MAC address to respond to clients of the failed gateway.
- ❍ C. The peer router uses a new virtual MAC address and requests that clients clear the ARP table so the new MAC will be propagated to all devices using that gateway IP address.
- ❍ D. The peer router will accept requests destined for both its own MAC address as well as the downed peer address.

Find the Answer p. 72

23. Which redundant supervisor method is best described as being able to actively have layer 2 information maintained on both supervisor modules so that hardware switching can continue during a failover?Choose the best answer.

- ❍ A. GLBP
- ❍ B. RPR
- ❍ C. SSO
- ❍ D. RPR+

Find the Answer p. 72

24. Which of the following correctly shows how to configure RPR+ on a compatible router with dual supervisors?Choose the best answer.

- ❍ A. Router(config)# redundancy mode rpr-plus
- ❍ B. Router(config)# redundancy

  Router(config-red)# mode rpr-plus
- ❍ C. Router(config)# redundancy

  Router(config-red)# type rpr-plus
- ❍ D. Router(config)# redundancy type rpr-plus

Find the Answer p. 73

25. A Catalyst 6500 switch has dual supervisor engine modules installed and an engineer configures rpr-plus. Unfortunately, the IOS images on each supervisor engine are different. What happens?Choose the best answer.

- ❍ A. If the primary supervisor module fails, the switch will not properly failover to the standby supervisor.
- ❍ B. The switch will check the IOS version before accepting the RPR+ configuration command. If the versions differ, the switch will not accept the command and will issue an error message.
- ❍ C. The switch will revert to standard RPR which does not require IOS images to be identical on the supervisor engines.
- ❍ D. RPR+ will still work during a failover but depending on the IOS images being used, some services may not work properly.

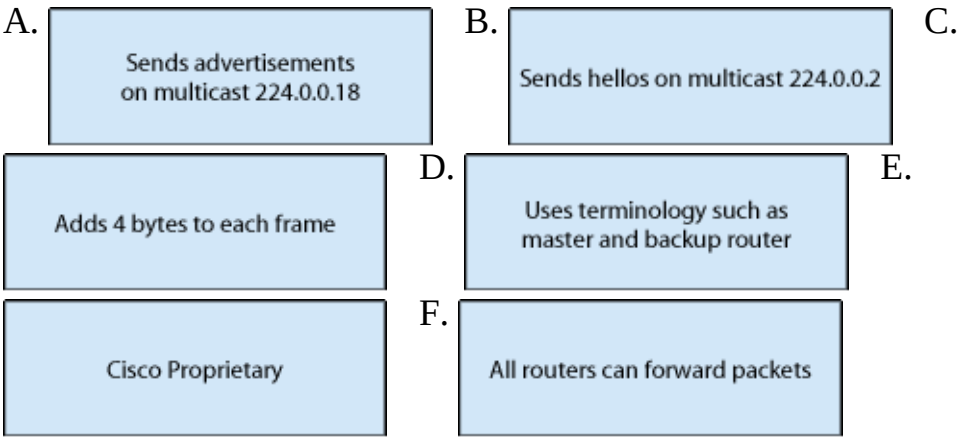
Find the Answer p. 73

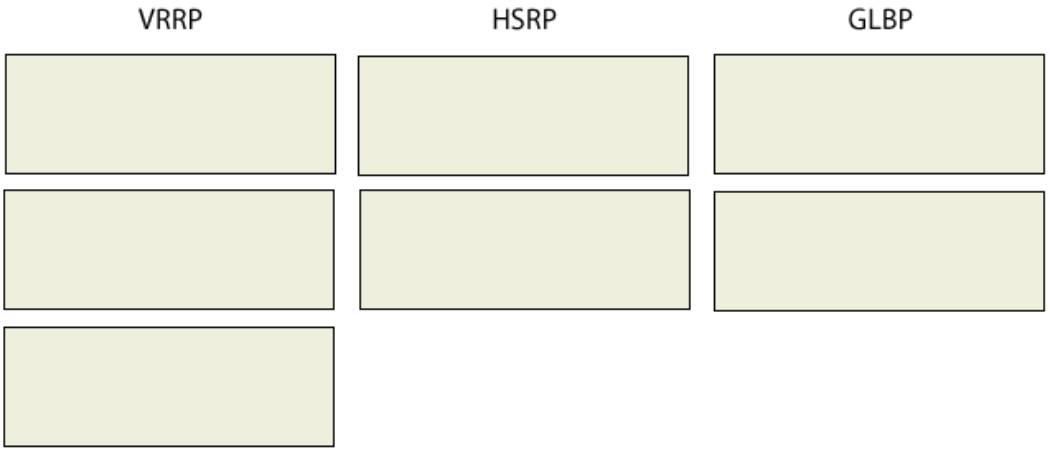
26. NSF capable Catalyst switches can be configured on certain routing protocols to very quickly rebuild the Routing Information Base (RIB) table after a supervisor switchover using SSO supervisor redundancy mode. All of the following routing protocols can be NSF enabled except which one?Choose the best answer.

- ❍ A. EIGRP
- ❍ B. OSPF
- ❍ C. IS-IS
- ❍ D. RIPv2

Find the Answer p. 73

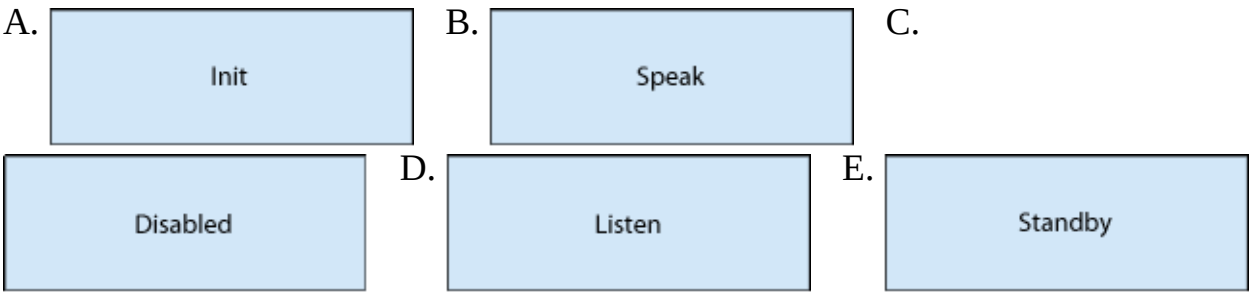
27. Drag the FHRP characteristic on the left to the protocol on the right that best describes it. (Note, a characteristic can be used more than one time)

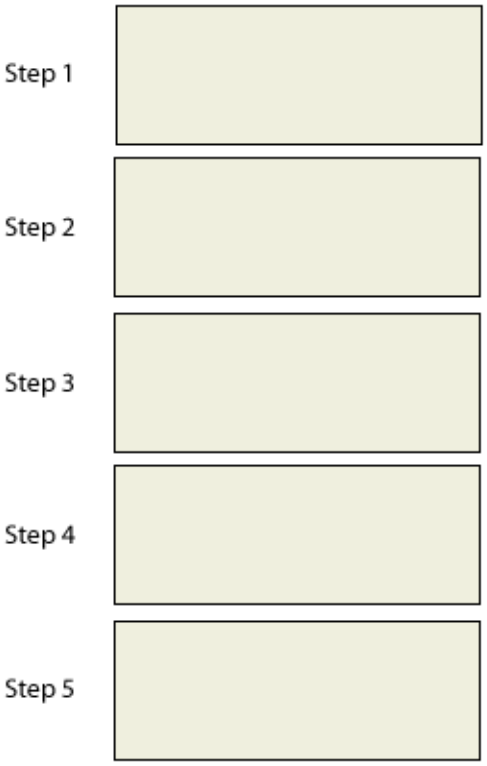




Detailed Explanation p. 126

28. Drag the HSRP states on the left to the correct order of operation on the right.





Detailed Explanation p. 127

Chapter 4
Prepare infrastructure to support advanced services

1. What PoE standard is vendor neutral?Choose the best answer.

   - ❍ A. 802.3af
   - ❍ B. ILP
   - ❍ C. Phantom power.
   - ❍ D. PoE IPM

   Find the Answer p. 74

2. What 802.3af power class handles PoE devices that use a maximum of 7 Watts?Choose the best answer.

   - ❍ A. Class 0
   - ❍ B. Class 3
   - ❍ C. Class 1
   - ❍ D. Class 2

   Find the Answer p. 74

3. You need to add additional PoE phones to a switch. In your preparations, you login to the switch and run the following command.Switch> show power inlineAvailable:370.0(w) Used:80.6(w) Remaining:289.4(w)Interface Admin Oper Power Device Class Max(Watts)--------- ------ ---------- ------- ------------------ ----------Fa0/1 auto on 6.3 IP Phone 7910 n/a 15.4Fa0/2 static off 15.4 n/a n/a 15.4Fa0/3 auto on 6.3 IP Phone 7910 n/a 15.4Fa0/4 auto on 6.3 IP Phone 7960 2 15.4Fa0/5 static on 15.4 IP Phone 7960 2 15.4Fa0/6 static power-deny 10.0 n/a n/a 10.0Fa0/7 auto on 6.3 IP Phone 7910 n/a 15.4What information is most useful here when planning to add additional PoE devices?Choose the best answer.

- ❍ A. The administrative status of devices as being auto or static.
- ❍ B. The operational status of devices as being on, off or power-deny.
- ❍ C. The PoE class of devices already connected to the switch.
- ❍ D. The amount of power still available on the PoE switch.

Find the Answer p. 74

4. What is the correct way to configure an 802.1p voice VLAN on a switchport? Voice traffic runs on VLAN 100.Choose the best answer.

- ❍ A. Switch(config-if)# switchport voice vlan 100 dot1p
- ❍ B. Switch(config-if)#switchport access vlan 100 dot1p
- ❍ C. Switch(config-if)#switchport mode dot1p

  Switch(config-if)#switchport access vlan 100
- ❍ D. Switch(config-if)#switchport mode dot1p

  Switch(config-if)# switchport voice vlan 100

Find the Answer p. 74

5. Which of the following is NOT a voice VLAN tagging method?Choose the best answer.

- ❍ A. 802.1p
- ❍ B. 802.1q
- ❍ C. 802.1w
- ❍ D. Untagged

Find the Answer p. 74

6. QoS prioritizes voice traffic by doing all of the following except what?Choose the best answer.

- ❍ A. Lower jitter
- ❍ B. Lower convergence
- ❍ C. Lowers voice packet loss.
- ❍ D. Lowers voice packet delay.

Find the Answer p. 74

7. Voice traffic is most commonly tagged with an IP precedence of what?Choose the best answer.

- ❍ A. 1
- ❍ B. 0
- ❍ C. 5
- ❍ D. 7

Find the Answer p. 74

8. IP precedence of class 0 is often referred to as what?Choose the best answer.

- ❍ A. Best effort forwarding
- ❍ B. Assured forwarding
- ❍ C. Expedited forwarding
- ❍ D. Network control forwarding

Find the Answer p. 74

9. The DSCP value is divided into a two parts. What are they?Choose two.

- ❑ A. 3-bit class selector
- ❑ B. 3-bit checksum value
- ❑ C. 3-bit TOS value
- ❑ D. 3-bit Drop Precedence value
- ❑ E. 3-bit QoS tag value

Find the Answer p. 74

10. An administrator wants to set a switchport to trust QoS information coming from an IP phone. Which of the following is NOT one of the three different trust options available?Choose the best answer.

- ❍ A. COS
- ❍ B. DSCP
- ❍ C. IP precedence
- ❍ D. RSTP

Find the Answer p. 74

11. Which of the following show commands display the QoS trust status on FastEthernet 0/18?Choose the best answer.

- ❍ A. Switch# show ip qos interface fastethernet 0/18
- ❍ B. Switch# show mls qos interface fastethernet 0/18
- ❍ C. Switch# show mls qos interface fastethernet 0/18 trust
- ❍ D. Switch# show qos trust interface fastethernet 0/18

Find the Answer p. 74

Chapter 5
Implement a Security Extension of a Layer 2 solution, given a network design and a set of requirements

1. Catalyst switches provide port security feature to control port access based on what?Choose the best answer.

   - ❍ A. IP address
   - ❍ B. Static routes
   - ❍ C. MAC address
   - ❍ D. VLAN number

   Find the Answer p. 75

2. What is the maximum number of devices that can operate on a single switchport configured for port security?Choose the best answer.

   - ❍ A. 254
   - ❍ B. 128
   - ❍ C. Unlimited
   - ❍ D. 1024

   Find the Answer p. 75

3. When a port security violation occurs. You can set the port to do one of the following three examples. Which one is not a valid action?Choose the best answer.

   - ❍ A. Shutdown
   - ❍ B. Restart
   - ❍ C. Protect
   - ❍ D. Restrict

   Find the Answer p. 75

4. A network engineer is reviewing a switch configuration and looks at the following command entry.aaa authentication dot1x default group radiusWhat does this command do?Choose the best answer.

- ❍ A. Tells the switch to use configured RADIUS servers to authenticate clients using 802.1x.
- ❍ B. Tells the switch to use the local database to authenticate clients using 802.1x.
- ❍ C. Tells the switch that it should use configured RADIUS servers for 802.1x trunking.
- ❍ D. Configures a local user named radius that can be used to access network resources with 802.1x authentication.

Find the Answer p. 75

5. How does DHCP spoofing work?Choose the best answer.

- ❍ A. A rogue DHCP server sends requests to DHCP clients with the default gateway of the rogue device.
- ❍ B. A rogue DHCP client sends requests to DHCP servers with the default gateway of the rogue device.
- ❍ C. A rogue DHCP server sends requests to routers with the default gateway of the rogue device.
- ❍ D. A rogue DHCP server sends requests to switches with the default gateway of the rogue device.

Find the Answer p. 75

6. You are configuring IP ARP inspection on a switch. Which of the following is NOT a way to validate ARP reply packets?Choose the best answer.

- ❍ A. Source IP address
- ❍ B. Destination IP address
- ❍ C. Source MAC address
- ❍ D. Destination MAC address

Find the Answer p. 75

7. A VACL can forward packets, drop packets and _____ packets?Choose the best answer.

- ❍ A. Rewrite
- ❍ B. Rate limit
- ❍ C. Redirect
- ❍ D. Mirror

Find the Answer p. 75

8. What type of private VLAN (PVLAN) allows clients to communicate with each other and with the primary VLAN but not with any other secondary VLAN?Choose the best answer.

- ❍ A. Isolated
- ❍ B. Promiscuous
- ❍ C. Community
- ❍ D. Guarded

Find the Answer p. 75

9. For a VLAN hopping exploit to work on a switch, all of the following conditions must be met EXCEPT what?Choose the best answer.

- ❍ A. The attacker is connected to an access port on the switch.
- ❍ B. The VLAN that the attacker is connected to must be the native VLAN on the switch trunk.
- ❍ C. The attacker must be on a PVLAN in promiscuous mode.
- ❍ D. The switch must be configured with a dot1q trunk.

Find the Answer p. 75

10. You are concerned about a hacker using the VLAN hopping exploit. To counter this, you decide to force your switch to tag the native 802.1q VLAN on your trunks. What command properly configures this?Choose the best answer.

- ❍ A. Switch(config-if)# vlan dot1q tag native
- ❍ B. Switch(config)# vlan dot1q tag native
- ❍ C. Switch(config-if)# trunk dot1q tag native
- ❍ D. Switch(config)# trunk dot1q tag native

Find the Answer p. 75

11. When configuring PVLANs, what switchport command sets the port to be able to connect to devices such s routers, firewalls or other gateway devices?Choose the best answer.

- ❍ A. Switch(config-if)#switchport mode private-vlan promiscuous
- ❍ B. Switch(config-if)#switchport mode private-vlan host
- ❍ C. Switch(config-if)#switchport mode private-vlan gateway
- ❍ D. Switch(config-if)#switchport mode private-vlan community

Find the Answer p. 75

Answers: Chapter 1

1. **B**	Review Question p. 2	Detailed Explanation p. 77
2. **D**	Review Question p. 2	Detailed Explanation p. 77
3. **B**	Review Question p. 2	Detailed Explanation p. 77
4. **A**	Review Question p. 3	Detailed Explanation p. 78
5. **D**	Review Question p. 3	Detailed Explanation p. 78
6. **B**	Review Question p. 4	Detailed Explanation p. 78
7. **A**	Review Question p. 5	Detailed Explanation p. 79
8. **A**	Review Question p. 5	Detailed Explanation p. 79
9. **D**	Review Question p. 6	Detailed Explanation p. 80
10. **A**	Review Question p. 6	Detailed Explanation p. 80
11. **B**	Review Question p. 6	Detailed Explanation p. 80
12. **E**	Review Question p. 7	Detailed Explanation p. 81
13. **B**	Review Question p. 7	Detailed Explanation p. 81
14. **C**	Review Question p. 8	Detailed Explanation p. 82
15. **C**	Review Question p. 8	Detailed Explanation p. 82
16. **D**	Review Question p. 8	Detailed Explanation p. 82
17. **D**	Review Question p. 9	Detailed Explanation p. 83
18. **A**	Review Question p. 9	Detailed Explanation p. 83
19. **C**	Review Question p. 9	Detailed Explanation p. 83
20. **D**	Review Question p. 10	Detailed Explanation p. 84
21. **C**	Review Question p. 10	Detailed Explanation p. 84
22. **A**	Review Question p. 10	Detailed Explanation p. 84
23. **C**	Review Question p. 11	Detailed Explanation p. 85

24. **C**	Review Question p. 11	Detailed Explanation p. 85
25. **D**	Review Question p. 11	Detailed Explanation p. 86
26. **B**	Review Question p. 12	Detailed Explanation p. 86
27. **C**	Review Question p. 12	Detailed Explanation p. 86
28. **A**	Review Question p. 12	Detailed Explanation p. 87
29. **B**	Review Question p. 13	Detailed Explanation p. 87
30. **B**	Review Question p. 13	Detailed Explanation p. 87
31. **A**	Review Question p. 13	Detailed Explanation p. 88
32. **C**	Review Question p. 14	Detailed Explanation p. 88
33. **A, D**	Review Question p. 14	Detailed Explanation p. 88
34. **D**	Review Question p. 14	Detailed Explanation p. 89
35. **A**	Review Question p. 15	Detailed Explanation p. 89
36. **A**	Review Question p. 15	Detailed Explanation p. 90
37. **B**	Review Question p. 15	Detailed Explanation p. 90
38. **D**	Review Question p. 16	Detailed Explanation p. 90
39. **D**	Review Question p. 16	Detailed Explanation p. 91
40. **A**	Review Question p. 16	Detailed Explanation p. 91
41. **D**	Review Question p. 17	Detailed Explanation p. 91
42. **B**	Review Question p. 17	Detailed Explanation p. 92
43. **C**	Review Question p. 18	Detailed Explanation p. 92
44. **B**	Review Question p. 19	Detailed Explanation p. 93
45. **D**	Review Question p. 19	Detailed Explanation p. 93
46. **D**	Review Question p. 20	Detailed Explanation p. 93
47. **C**	Review Question p. 20	Detailed Explanation p. 94
48. **C**	Review Question p. 20	Detailed Explanation p. 94

49. **A**	Review Question p. 21	Detailed Explanation p. 94
50. **C, D**	Review Question p. 21	Detailed Explanation p. 95
51. **C**	Review Question p. 21	Detailed Explanation p. 95
52. **D**	Review Question p. 21	Detailed Explanation p. 95
53. **C**	Review Question p. 22	Detailed Explanation p. 96
54. **B**	Review Question p. 22	Detailed Explanation p. 96
55. **A**	Review Question p. 22	Detailed Explanation p. 96
56. **D**	Review Question p. 23	Detailed Explanation p. 97
57. **D**	Review Question p. 23	Detailed Explanation p. 97
58. **B**	Review Question p. 23	Detailed Explanation p. 97
59. **A**	Review Question p. 24	Detailed Explanation p. 98
60. **B, C**	Review Question p. 24	Detailed Explanation p. 98
61. **A, E**	Review Question p. 24	Detailed Explanation p. 98
62. **B**	Review Question p. 25	Detailed Explanation p. 99
63. **B**	Review Question p. 25	Detailed Explanation p. 99
64. **D**	Review Question p. 26	Detailed Explanation p. 100
65. **C**	Review Question p. 26	Detailed Explanation p. 100
66. **C**	Review Question p. 27	Detailed Explanation p. 100
67. **B**	Review Question p. 27	Detailed Explanation p. 101
68. **C**	Review Question p. 27	Detailed Explanation p. 101
69. **D**	Review Question p. 28	Detailed Explanation p. 101
70. **D**	Review Question p. 28	Detailed Explanation p. 102
71. **A, B**	Review Question p. 28	Detailed Explanation p. 102
72. **C**	Review Question p. 29	Detailed Explanation p. 102
73. **C**	Review Question p. 29	Detailed Explanation p. 103

74. **A, D**	Review Question p. 29	Detailed Explanation p. 103
75. **C**	Review Question p. 30	Detailed Explanation p. 104
76. **C**	Review Question p. 30	Detailed Explanation p. 104
77. **A**	Review Question p. 30	Detailed Explanation p. 104
78. **C, E**	Review Question p. 31	Detailed Explanation p. 105
79. **A**	Review Question p. 31	Detailed Explanation p. 105
80. **D**	Review Question p. 31	Detailed Explanation p. 105
81. **C**	Review Question p. 32	Detailed Explanation p. 106
82. **A**	Review Question p. 32	Detailed Explanation p. 106
83. **C**	Review Question p. 32	Detailed Explanation p. 106
84. **C**	Review Question p. 33	Detailed Explanation p. 107
85. **D**	Review Question p. 33	Detailed Explanation p. 107
86. See Explanation	Review Question p. 34	Detailed Explanation p. 107
87. See Explanation	Review Question p. 35	Detailed Explanation p. 108
88. See Explanation	Review Question p. 36	Detailed Explanation p. 109
89. See Explanation	Review Question p. 37	Detailed Explanation p. 110
90. See Explanation	Review Question p. 38	Detailed Explanation p. 110
91. See Explanation	Review Question p. 39	Detailed Explanation p. 111
92. See Explanation	Review Question p. 40	Detailed Explanation p. 112

Answers: Chapter 2

1. **A**	Review Question p. 41	Detailed Explanation p. 114
2. **A, D**	Review Question p. 41	Detailed Explanation p. 114
3. **A**	Review Question p. 41	Detailed Explanation p. 114
4. **B**	Review Question p. 42	Detailed Explanation p. 115
5. **A**	Review Question p. 42	Detailed Explanation p. 115
6. **D**	Review Question p. 42	Detailed Explanation p. 115
7. **B**	Review Question p. 43	Detailed Explanation p. 116
8. **C**	Review Question p. 43	Detailed Explanation p. 116
9. **D**	Review Question p. 43	Detailed Explanation p. 116

Answers: Chapter 3

1. **C**	Review Question p. 44	Detailed Explanation p. 117
2. **B**	Review Question p. 44	Detailed Explanation p. 117
3. **E**	Review Question p. 44	Detailed Explanation p. 117
4. **B, C**	Review Question p. 45	Detailed Explanation p. 118
5. **D**	Review Question p. 45	Detailed Explanation p. 118
6. **D**	Review Question p. 45	Detailed Explanation p. 119
7. **B**	Review Question p. 46	Detailed Explanation p. 119
8. **D**	Review Question p. 46	Detailed Explanation p. 119
9. **C**	Review Question p. 46	Detailed Explanation p. 120
10. **C**	Review Question p. 47	Detailed Explanation p. 120
11. **D**	Review Question p. 47	Detailed Explanation p. 120
12. **A**	Review Question p. 47	Detailed Explanation p. 121
13. **C**	Review Question p. 48	Detailed Explanation p. 121
14. **B**	Review Question p. 48	Detailed Explanation p. 121
15. **A**	Review Question p. 48	Detailed Explanation p. 122
16. **B**	Review Question p. 49	Detailed Explanation p. 122
17. **A**	Review Question p. 49	Detailed Explanation p. 123
18. **A**	Review Question p. 50	Detailed Explanation p. 123
19. **D**	Review Question p. 50	Detailed Explanation p. 124
20. **B**	Review Question p. 51	Detailed Explanation p. 124
21. **B**	Review Question p. 51	Detailed Explanation p. 124
22. **D**	Review Question p. 52	Detailed Explanation p. 124
23. **C**	Review Question p. 52	Detailed Explanation p. 125

24. **B**	Review Question p. 53	Detailed Explanation p. 125
25. **C**	Review Question p. 53	Detailed Explanation p. 125
26. **D**	Review Question p. 54	Detailed Explanation p. 126
27. See Explanation	Review Question p. 55	Detailed Explanation p. 126
28. See Explanation	Review Question p. 56	Detailed Explanation p. 127

Answers: Chapter 4

1. **A**	Review Question p. 57	Detailed Explanation p. 128
2. **D**	Review Question p. 57	Detailed Explanation p. 128
3. **D**	Review Question p. 58	Detailed Explanation p. 128
4. **A**	Review Question p. 58	Detailed Explanation p. 129
5. **C**	Review Question p. 59	Detailed Explanation p. 129
6. **B**	Review Question p. 59	Detailed Explanation p. 129
7. **C**	Review Question p. 59	Detailed Explanation p. 130
8. **A**	Review Question p. 60	Detailed Explanation p. 130
9. **A, D**	Review Question p. 60	Detailed Explanation p. 131
10. **D**	Review Question p. 60	Detailed Explanation p. 131
11. **B**	Review Question p. 61	Detailed Explanation p. 131

Answers: Chapter 5

1. **C**	Review Question p. 62	Detailed Explanation p. 133
2. **D**	Review Question p. 62	Detailed Explanation p. 133
3. **B**	Review Question p. 62	Detailed Explanation p. 133
4. **A**	Review Question p. 63	Detailed Explanation p. 133
5. **A**	Review Question p. 63	Detailed Explanation p. 134
6. **B**	Review Question p. 63	Detailed Explanation p. 134
7. **C**	Review Question p. 64	Detailed Explanation p. 135
8. **C**	Review Question p. 64	Detailed Explanation p. 135
9. **C**	Review Question p. 64	Detailed Explanation p. 135
10. **B**	Review Question p. 65	Detailed Explanation p. 135
11. **A**	Review Question p. 65	Detailed Explanation p. 136

Explanations: Chapter 1

1. Review Question p. 2

Answers: B

Explanation A. Incorrect. CSMA-CA is used in wireless networks.

Explanation B. Correct. When collisions occur on a collision domain, hosts are forced to operate in half-duplex mode.

Explanation C. Incorrect. When collisions occur on a collision domain, hosts are forced to operate in half-duplex mode and never in full-duplex mode.

Explanation D. Incorrect. Ethernet always operates at layer 2 of the OSI model.

PrepLogic Question: 12383-1000

2. Review Question p. 2

Answers: D

Explanation A. Incorrect. A layer 2 switch has one collision domain per port.

Explanation B. Incorrect. A layer 2 switch has one collision domain per port. Zero would mean that broadcasting is disabled.

Explanation C. Incorrect. A layer 2 switch has one collision domain per port. A port can only belong to one subnet at a time.

Explanation D. Correct. A layer 2 switch has one collision domain per port.

PrepLogic Question: 12383-1001

3. Review Question p. 2

Answers: B

Explanation A. Incorrect. This is a benefit of a layer 2 switch over a bridge/hub. Hubs are more intelligent and keep a table of MAC addresses to switch ports making switching decisions more intelligent.

Explanation B. Correct. Layer 2 switches do not (by default) segment broadcast domains per-port.

Explanation C. Incorrect. This is a benefit of a layer 2 switch over a bridge/hub.

Because of the lack of intelligence, hubs only operate in half duplex mode.

Explanation D. Incorrect. This is a benefit of a layer 2 switch over a bridge/hub. On a bridge/hub, bandwidth is shared between all ports due to the lack of a CAM table.

PrepLogic Question: 12383-1002

4. Review Question p. 3

Answers: A

Explanation A. Correct. Each port on a layer 2 switch is isolated on its own LAN segment.

Explanation B. Incorrect. A layer 3 device is either a router or multi-layer switch and a hub defines a layer 1 device.

Explanation C. Incorrect. A bridge must have a minimum of two ports.

Explanation D. Incorrect. Broadcasts work at layer 3 so it has nothing to do with switches/bridges.

PrepLogic Question: 12383-1003

5. Review Question p. 3

Answers: D

Explanation A. Incorrect. A layer 2 switch does not use source and destination IP addresses when forwarding frames. IP addressing is a layer 3 address while a MAC address is a layer 2 address.

Explanation B. Incorrect. A layer 2 switch does not use the source MAC in forwarding decisions.

Explanation C. Incorrect. IP addresses are used at layer 3 for forwarding and are not used by layer 2 switches.

Explanation D. Correct. A layer 2 switch forwards frames based on the destination MAC address contained in each frame.

PrepLogic Question: 12383-1004

6. Review Question p. 4

Answers: B

Explanation A. Incorrect. The example does not show a physical layer bridge.

Explanation B. Correct. The example shows a layer 2 switch because it has a single collision domain per port.

Explanation C. Incorrect. A layer 3 switch could show details at layer 3 such as multiple broadcast domains.

Explanation D. Incorrect. A hub has a single collision domain for all ports which is not shown in the diagram.

PrepLogic Question: 12383-1005

7. Review Question p. 5

Answers: A

Explanation A. Correct. The diagram shows a CAM table which keeps track of MAC addresses and the corresponding switchport that they have been seen on most recently.

Explanation B. Incorrect. A DNS table maps IP addresses to domain names.

Explanation C. Incorrect. CDP is a protocol that discovers other Cisco equipment and collects information about them.

Explanation D. Incorrect. Broadcasts are a method of transporting data from one-to-many. Broadcasts are not stored in a table.

PrepLogic Question: 12383-1006

8. Review Question p. 5

Answers: A

Explanation A. Correct. The switch uses the source MAC address to populate the CAM table.

Explanation B. Incorrect. The switch uses the source MAC address to populate the CAM table.

Explanation C. Incorrect. The question asked how the switch dynamically learns MAC address information. This is referring to static CAM table entries.

Explanation D. Incorrect. The question asked how the switch dynamically learns MAC address information. This is referring to static CAM table entries which are also wrong because the administrator would want to statically assign the source MAC address and

assign a port number to it.

PrepLogic Question: 12383-1007

9. Review Question p. 6

Answers: D

Explanation A. Incorrect. Forwarding decisions are performed at the ingress queue on a switch so the frame gets to the correct destination.

Explanation B. Incorrect. If implemented, each frame is matched against an ACL at the ingress queue.

Explanation C. Incorrect. If implemented, each frame is matched against an ACL at the ingress queue.

Explanation D. Correct. Layer 2 switches do not use route caching which is a layer 3 operation.

PrepLogic Question: 12383-1008

10. Review Question p. 6

Answers: A

Explanation A. Correct. Both Security and QoS layer 2 ACL's are found in the switches TCAM table.

Explanation B. Incorrect. MAC addresses are in the CAM table.

Explanation C. Incorrect. The layer 2 forwarding table is found in the CAM table.

Explanation D. Incorrect. VLAN information is only required at layer 3.

PrepLogic Question: 12383-1009

11. Review Question p. 6

Answers: B

Explanation A. Incorrect. This is a description of the route caching MLS switch type. A route one, switch many uses a route-switch processor which is an older MLS technology.

Explanation B. Correct. Cisco Express Forwarding (CEF) is the next-generation technology that replaces the route caching method.

Explanation C. Incorrect. This is the legacy MLS method of route one, switch many.

Explanation D. Incorrect. TCAM is not a MLS type but rather an intelligent MLS table.

PrepLogic Question: 12383-1010

12. Review Question p. 7

Answers: E

Explanation A. Incorrect. This is a valid reason for a packet to be sent to the CPU for additional processing because the router cannot forward any packets when the TTL has expired.

Explanation B. Incorrect. This is a valid reason for a packet to be sent to the CPU for additional processing because routing protocol information must always be sent to the local CPU for processing.

Explanation C. Incorrect. This is a valid reason for a packet to be sent to the CPU for additional processing because encryption is handled separately from the ASIC and the CPU must handle it.

Explanation D. Incorrect. This is a valid reason for a packet to be sent to the CPU for additional processing because the local switch must process this information and put it into the CDP table.

Explanation E. Correct. Multicast packets can be handled by CEF so no "punting" to the main CPU is necessary.

Explanation F. Incorrect. This is a valid reason for a packet to be sent to the CPU for additional processing because the NAT translation process cannot be handled by the ASIC.

PrepLogic Question: 12383-1011

13. Review Question p. 7

Answers: B

Explanation A. Incorrect. This is not a valid way to statically configure MAC addresses into the CAM table.

Explanation B. Correct. This command is the proper way to configure static MAC addresses into the CAM table. It is a single global configuration command.

Explanation C. Incorrect. This is not a valid way to statically configure MAC addresses

into the CAM table.

Explanation D. Incorrect. This is not a valid way to statically configure MAC addresses into the CAM table.

PrepLogic Question: 12383-1012

14. Review Question p. 8

Answers: C

Explanation A. Incorrect. This is not the correct way to view the CAM table. CDP has nothing to do with the information stored in the CAM table.

Explanation B. Incorrect. This is not the correct way to view the CAM table. To see the cam table, you must use the show mac-address-table command.

Explanation C. Correct. This is the correct command for viewing the CAM table on most newer, IOS-based switches.

Explanation D. Incorrect. This is not the correct way to view the CAM table. To see the cam table, you must use the show mac-address-table command.

PrepLogic Question: 12383-1013

15. Review Question p. 8

Answers: C

Explanation A. Incorrect. The command given is not valid on a Cisco switch.

Explanation B. Incorrect. The command given is not valid on a Cisco switch.

Explanation C. Correct. This command shows the number of static and dynamic addresses for each VLAN in the CAM table.

Explanation D. Incorrect. The command given is not valid on a Cisco switch.

PrepLogic Question: 12383-1014

16. Review Question p. 8

Answers: D

Explanation A. Incorrect. Ethernet is a physical layer standard.

Explanation B. Incorrect. Gigabit Ethernet is a physical layer standard.

Explanation C. Incorrect. SONET is a physical layer standard.

Explanation D. Correct. This standard specifies spanning-tree protocol rules.

PrepLogic Question: 12383-1015

17. Review Question p. 9

Answers: D

Explanation A. Incorrect. The two Ethernet types are treated the same at layer 4.

Explanation B. Incorrect. The two Ethernet types are treated the same at layer 2.

Explanation C. Incorrect. The two technologies are the same at all layers of the OSI model except for one specific layer.

Explanation D. Correct. This is the only layer of the OSI model that is different between 10-Base-T Ethernet and 100-Base-TX Ethernet.

PrepLogic Question: 12383-1016

18. Review Question p. 9

Answers: A

Explanation A. Correct. Theoretically, you have 100 Mbps for both TX and RX providing 200 Mbps total.

Explanation B. Incorrect. 100 Mbps is not the theoretical throughput because of its full duplex ability.

Explanation C. Incorrect. This number is far lower than the theoretical maximum throughput.

Explanation D. Incorrect. This number is far lower than the theoretical maximum throughput.

PrepLogic Question: 12383-1017

19. Review Question p. 9

Answers: C

Explanation A. Incorrect. 550 meters is too short.

Explanation B. Incorrect. 100 meters is too short.

Explanation C. Correct. The maximum distance is 10 KM.

Explanation D. Incorrect. 1000 meters is too short.

PrepLogic Question: 12383-1018

20. Review Question p. 10

Answers: D

Explanation A. Incorrect. 25 meters is too short for the fiber type given in the question.

Explanation B. Incorrect. 66 meters is too long for the fiber type given in the question.

Explanation C. Incorrect. 50 meters is too long for the fiber type given in the question.

Explanation D. Correct. The correct maximum distance is 33 meters with the given fiber type.

PrepLogic Question: 12383-1019

21. Review Question p. 10

Answers: C

Explanation A. Incorrect. 8 pins are used in gigabit Ethernet connections however.

Explanation B. Incorrect. These are not the correct pin-outs for 10-Base-T and 100-Base-TX cables.

Explanation C. Correct. Only pins 1, 2, 3 and 6 are used. Once you move to Gigabit speeds however (such as 1000-Base-T), you will need all 8 pins for transmissions.

Explanation D. Incorrect. These are not the correct pin-outs for 10-Base-T and 100-Base-TX cables.

Explanation E. Incorrect. These are not the correct pin-outs for 10-Base-T and 100-Base-TX cables.

PrepLogic Question: 12383-1020

22. Review Question p. 10

Answers: A

Explanation A. Correct. RTSP stands for real-time streaming protocol and it is a mode of transport and not an error disable condition.

Explanation B. Incorrect. This is a configurable errdisable condition that errors out when an ARP entry is flagged.

Explanation C. Incorrect. This is a configurable errdisable condition that triggers when a BPDU is seen on a port configured with spanning-tree portfast.

Explanation D. Incorrect. This is a configurable errdisable condition that triggers when Etherchannel has been improperly configured.

PrepLogic Question: 12383-1021

23. Review Question p. 11

Answers: C

Explanation A. Incorrect. Unicast flood detects conditions that trigger unicast flood blocking on a port.

Explanation B. Incorrect. Vmps detects errors when assigning a port to a dynamic VLAN.

Explanation C. Correct. Udld stands for unidirectional link detection.

Explanation D. Incorrect. Dtp-flaps detect when a dynamic trunk encapsulation changes from one method to another.

PrepLogic Question: 12383-1022

24. Review Question p. 11

Answers: C

Explanation A. Incorrect. The first "up" seen in the output of the show command tells us that the ports physical cabling is working properly.

Explanation B. Incorrect. The second "up" seen in the output of the show command tells us that the switch is operating properly at layer 2.

Explanation C. Correct. The output of the show command shows the port as up/up. This means that both layer 1 and layer 2 are operational.

Explanation D. Incorrect. The output of this command only gives information about layers 1 and 2 of the OSI model.

PrepLogic Question: 12383-1023

25. Review Question p. 11

Answers: D

Explanation A. Incorrect. Collisions are handled at layer 2 using CDMA-CD.

Explanation B. Incorrect. VTP handles the propagation of VLANs on a switched network.

Explanation C. Incorrect. Spanning tree can have one or multiple instances on a switch depending on how the administrator configures it.

Explanation D. Correct. VLANs break up broadcast domains. One broadcast domain per VLAN.

PrepLogic Question: 12383-1024

26. Review Question p. 12

Answers: B

Explanation A. Incorrect. VTP is a method of propagating VLANs on a layer 2 switched network.

Explanation B. Correct. Dynamic trunking protocol (DTP) can be used to dynamically choose a trunking method when properly setup between two connected switches.

Explanation C. Incorrect. Cisco Express Forwarding is a layer 3 technology used for more efficient routing.

Explanation D. Incorrect. VID has nothing to do with switch trunking.

PrepLogic Question: 12383-1025

27. Review Question p. 12

Answers: C

Explanation A. Incorrect. This is not likely the reason why the trunk status is "non-trunking" because this switch is setup for DTP dynamic desirable mode as well.

Explanation B. Incorrect. This is not likely the reason why the trunk status is "non-trunking" because this switch is setup for DTP dynamic desirable mode which works with opposite ports configured for trunk mode.

Explanation C. Correct. Because the switch we're looking at is configured for DTP desirable mode, it will play nice with any trunk setup. Therefore, it is likely that the remote switch is not setup for trunking at all.

Explanation D. Incorrect. This is not likely the reason why the trunk status is "non-trunking" because this switch is setup for DTP dynamic desirable mode which works with opposite ports configured for dynamic mode.

PrepLogic Question: 12383-1026

28. Review Question p. 12

Answers: A

Explanation A. Correct. This command shows DTP configuration and what trunk operational mode the port negotiated to when configured for a dynamic mode.

Explanation B. Incorrect. This command will not show the trunks administrative mode verses the operational mode.

Explanation C. Incorrect. The command given is not valid.

Explanation D. Incorrect. The command given will only display physical characteristics of the trunk.

PrepLogic Question: 12383-1027

29. Review Question p. 13

Answers: B

Explanation A. Incorrect. To be in a client mode, an administrator must configure the switch manually.

Explanation B. Correct. By default, all switches are in Server mode.

Explanation C. Incorrect. This is not a valid VTP mode.

Explanation D. Incorrect. To be in a transparent mode, an administrator must configure the switch manually.

PrepLogic Question: 12383-1028

30. Review Question p. 13

Answers: B

Explanation A. Incorrect. Client mode processes and forwards all VTP advertisement messages.

Explanation B. Correct. Version 2 of VTP transparent mode will still forward packets

but does not participate in VTP any further.

Explanation C. Incorrect. Client mode processes and forwards all VTP advertisement messages.

Explanation D. Incorrect. Version 1 will not forward VTP messages it receives when in transparent mode.

PrepLogic Question: 12383-1029

31. Review Question p. 13

Answers: A

Explanation A. Correct. VTP revision numbers always begin at 0 when VTP is fist started.

Explanation B. Incorrect. The revision number does not begin with 1.

Explanation C. Incorrect. The revision number is not assigned to a random number.

Explanation D. Incorrect. The revision number is not assigned to a random number.

PrepLogic Question: 12383-1030

32. Review Question p. 14

Answers: C

Explanation A. Incorrect. This is a valid method to reset the revision number. The revision number would show 0 is this action was performed on a switch.

Explanation B. Incorrect. This is a valid method to reset the revision number. The revision number would show 0 is this action was performed on a switch.

Explanation C. Correct. Rebooting the switch will not reset the revision number because this is not stored in volatile ram but either in NVRAM or flash depending on the switch type.

Explanation D. Incorrect. This is a valid method to reset the revision number.

PrepLogic Question: 12383-1031

33. Review Question p. 14

Answers: A, D

Explanation A. Correct. Summary advertisements will be sent to other devices updating VLAN information.

Explanation B. Incorrect. These are not sent after a VLAN change has been made because the switch still knows about all the neighbor switches. Only the VLAN information they share has changed.

Explanation C. Incorrect. These are not sent after a VLAN change has been made. This is also not a valid VTP advertisement.

Explanation D. Correct. These advertisements list specific information on the VLAN changes that were detected.

PrepLogic Question: 12383-1032

34. Review Question p. 14

Answers: D

Explanation A. Incorrect. This must be identical across all switches otherwise the switch thinks it is on a separate network.

Explanation B. Incorrect. This must be identical across all switches. This is a security feature within VTP.

Explanation C. Incorrect. This must be identical across all switches. The two versions are interoperable.

Explanation D. Correct. VTP switches can participate with each other when there operational modes are different. It just means that they send, receive and forward VTP information differently depending on what type they are (client, server, transparent).

PrepLogic Question: 12383-1033

35. Review Question p. 15

Answers: A

Explanation A. Correct. This command shows VTP message and error counters.

Explanation B. Incorrect. The given command will not display counter information but rather the current status of the protocol on the switch.

Explanation C. Incorrect. This is not a valid show command.

Explanation D. Incorrect. CDP will not give you VTP information.

PrepLogic Question: 12383-1034

36. Review Question p. 15

Answers: A

Explanation A. Correct. This is the proper syntax to remove VTP pruning functionality from all VLANS on an interface.

Explanation B. Incorrect. This is not the correct IOS syntax. An error will occur on the switch if run.

Explanation C. Incorrect. This is not the correct IOS syntax. An error will occur on the switch if run.

Explanation D. Incorrect. This is not the correct IOS syntax. An error will occur on the switch if run.

PrepLogic Question: 12383-1035

37. Review Question p. 15

Answers: B

Explanation A. Incorrect. This is not the correct range of eligible VLANs.

Explanation B. Correct. VLAN is not eligible by default and the default range goes up to VLAN 1001.

Explanation C. Incorrect. This is not the correct range of eligible VLANs.

Explanation D. Incorrect. This is not the correct range of eligible VLANs.

PrepLogic Question: 12383-1036

38. Review Question p. 16

Answers: D

Explanation A. Incorrect. A Cisco switch can aggregate more than 6 links and a minimum of 2.

Explanation B. Incorrect. A Cisco switch cannot aggregate 10 links.

Explanation C. Incorrect. A Cisco switch cannot aggregate 10 links.

Explanation D. Correct. A switch can aggregate between 2 and 8 Ethernet, FE, Gigabit

and 10Gigabit links.

Explanation E. Incorrect. A Cisco switch can aggregate more than 6 links and they do not have to be in pairs of two.

PrepLogic Question: 12383-1037

39. Review Question p. 16

Answers: D

Explanation A. Incorrect. A shut/no shut on a single Ethernet link does not put it back into an EtherChannel bundle.

Explanation B. Incorrect. No reconfiguration is required to put a restored Ethernet link back into an EtherChannel bundle.

Explanation C. Incorrect. Full-duplex mode is not required for EtherChannel although the links do need to all be configured the same.

Explanation D. Correct. Nothing needs to be done to restore a failed link that's already been setup for aggregation. As links are restored, the load is automatically redistributed to all active links.

PrepLogic Question: 12383-1038

40. Review Question p. 16

Answers: A

Explanation A. Correct. The number of links must be between 2 and 8 and the Ethernet media must be of the same type (all Ethernet or all FastEthernet, etc).

Explanation B. Incorrect. The configuration setup given does not fall within the requirements needed.

Explanation C. Incorrect. The configuration setup given does not fall within the requirements needed.

Explanation D. Incorrect. The configuration setup given does not fall within the requirements needed.

PrepLogic Question: 12383-1039

41. Review Question p. 17

Answers: D

Explanation A. Incorrect. The 802.1q native VLAN must match on all links in the EtherChannel bundle otherwise frames will not be properly forwarded on the native VLANs. The EtherChannel will not function if the native VLANs do not match.

Explanation B. Incorrect. The speed and duplex settings must match on all links in the EtherChannel bundle.

Explanation C. Incorrect. The STP settings must match on all links in the EtherChannel bundle. The EtherChannel will not function if the STP is different.

Explanation D. Correct. The ports used on the switch do not need to be sequential.

Explanation E. Incorrect. The trunking mode must match on all links in the EtherChannel bundle. The EtherChannel will not function if the trunking modes are not identical.

Explanation F. Incorrect. The VLANs passed across the trunk must match on all links in the EtherChannel bundle. If the VLANs were not the same and a link in the bundle goes down, a previously allowed VLAN would stop being forwarded across the EtherChannel.

PrepLogic Question: 12383-1040

42. Review Question p. 17

Answers: B

Explanation A. Incorrect. 1 bit is needed when you bundle 2 links.

Explanation B. Correct. On a 4 link bundle, 2 bits are used for the exclusive-OR (XOR) calculation.

Explanation C. Incorrect. 3 bits are needed when you bundle 8 links.

Explanation D. Incorrect. 4 bits are never required for EtherChannel.

PrepLogic Question: 12383-1041

43. Review Question p. 18

Answers: C

Explanation A. Incorrect. MAC addresses are not used in EtherChannel load balancing.

Explanation B. Incorrect. MAC addresses are not used in EtherChannel load balancing.

Explanation C. Correct. The hash input is source IP, destination IP and the hash operation uses XOR.

Explanation D. Incorrect. MAC addresses are not used in EtherChannel load balancing.

PrepLogic Question: 12383-1042

44. Review Question p. 19

Answers: B

Explanation A. Incorrect. The Load column does not list the amount of traffic as a percentage.

Explanation B. Correct. This can be used to help determine if traffic is adequately being load-balanced across all links in the bundle.

Explanation C. Incorrect. Binary numbers are very difficult for humans to read and would never be used in the output of show commands.

Explanation D. Incorrect. This information can indeed determine the proportion of the complete traffic being transported on a single EtherChannel link.

PrepLogic Question: 12383-1043

45. Review Question p. 19

Answers: D

Explanation A. Incorrect. Two links never make decisions. One is always chosen over another.

Explanation B. Incorrect. Interface number does not factor into the decision.

Explanation C. Incorrect. The higher MAC would not be chosen.

Explanation D. Correct. The tie-breaker is lowest MAC address.

Explanation E. Incorrect. Interface number does not factor into the decision.

PrepLogic Question: 12383-1044

46. Review Question p. 20

Answers: D

Explanation A. Incorrect. The summary command Displays a one-line summary per

channel group and contains no port information.

Explanation B. Incorrect. The command given is not a valid IOS command.

Explanation C. Incorrect. The command given is not a valid IOS command.

Explanation D. Correct. The best command to use is show etherchannel port.

PrepLogic Question: 12383-1045

47. Review Question p. 20

Answers: C

Explanation A. Incorrect. The summary command Displays a one-line summary per channel group and contains no information on changes that may have been made.

Explanation B. Incorrect. The port command shows EtherChannel port information but it does not contain information regarding changes that may have been made.

Explanation C. Correct. This command show you when EtherChannel changes occurred including timestamps of the events.

Explanation D. Incorrect. The detail command shows a large amount of information about the current state of the EtherChannel links but does not show information about changes being made.

PrepLogic Question: 12383-1046

48. Review Question p. 20

Answers: C

Explanation A. Incorrect. The default BPDU timer is not five seconds.

Explanation B. Incorrect. The default BPDU timer is not ten seconds.

Explanation C. Correct. By default, BPDU's are sent every two seconds.

Explanation D. Incorrect. The default BPDU timer is not thirty seconds.

PrepLogic Question: 12383-1047

49. Review Question p. 21

Answers: A

Explanation A. Correct. The destination MAC is always 0180.c200.0000 which is designated on Ethernet networks to be used for BPDU transmissions.

Explanation B. Incorrect. BPDUs are not sent using multicast.

Explanation C. Incorrect. BPDUs do not have VLAN tags.

Explanation D. Incorrect. BPDUs are not tagged as the answer suggests.

PrepLogic Question: 12383-1048

50. Review Question p. 21

Answers: C, D

Explanation A. Incorrect. This is not a BPDU type. BPDUs are used for STP and not for configuration checking.

Explanation B. Incorrect. This is not a BPDU type. BPDUs are used for STP and not for error checking.

Explanation C. Correct. BPDU's are used to compute the STP structure.

Explanation D. Correct. BPDU's are used to announce any topology changes on the L2 network.

PrepLogic Question: 12383-1049

51. Review Question p. 21

Answers: C

Explanation A. Incorrect. The Default is not 1.

Explanation B. Incorrect. The Default is not 0.

Explanation C. Correct. The Default is 32768.

Explanation D. Incorrect. The Default is not 8,192.

PrepLogic Question: 12383-1050

52. Review Question p. 21

Answers: D

Explanation A. Incorrect. The lower the path cost, the faster the link. A cost of 2

specifies 10 Gigabit links.

Explanation B. Incorrect. A cost of 1 is not defined.

Explanation C. Incorrect. A cost of 10 is not defined.

Explanation D. Correct. The new STP path cost is 4. The old cost was 1.

PrepLogic Question: 12383-1051

53. Review Question p. 22

Answers: C

Explanation A. Incorrect. Having more than one designated port to the root bridge can cause layer 2 loops.

Explanation B. Incorrect. Having more than one designated port to the root bridge can cause layer 2 loops.

Explanation C. Correct. A network segment will have only 1 designated port.

Explanation D. Incorrect. Having more than one designated port to the root bridge can cause layer 2 loops.

PrepLogic Question: 12383-1052

54. Review Question p. 22

Answers: B

Explanation A. Incorrect. Blocking would not send/receive BPDUs.

Explanation B. Correct. The correct STP port state is Listening.

Explanation C. Incorrect. The learning state does not perform the actions described in the question.

Explanation D. Incorrect. When a port is disabled, nothing can be sent or received.

PrepLogic Question: 12383-1053

55. Review Question p. 22

Answers: A

Explanation A. Correct. The STP link value is 19, indicating a FastEthernet link.

Explanation B. Incorrect. A 10-Base-T link would have a value of 100.

Explanation C. Incorrect. A gigabit Ethernet link would have a value of 4.

Explanation D. Incorrect. The link type can be determined by looking at the default cost of the link.

PrepLogic Question: 12383-1054

56. Review Question p. 23

Answers: D

Explanation A. Incorrect. This is not the default number of seconds used for the forward delay timer. STP BPDUs are sent every 2 seconds.

Explanation B. Incorrect. This is not the default number of seconds used for the forward delay timer.

Explanation C. Incorrect. This is not the default number of seconds used for the forward delay timer.

Explanation D. Correct. The default timer is 15 seconds.

PrepLogic Question: 12383-1055

57. Review Question p. 23

Answers: D

Explanation A. Incorrect. PVST has an instance of STP on every VLAN.

Explanation B. Incorrect. 802.1d is simply the IEEE identification ID for Spanning-tree.

Explanation C. Incorrect. PVST+ has an instance of STP on every VLAN.

Explanation D. Correct. Common Spanning Tree (CST) has 1 instance of STP that runs over the native VLAN identified.

PrepLogic Question: 12383-1056

58. Review Question p. 23

Answers: B

Explanation A. Incorrect. CST only operates over 802.1q trunks.

Explanation B. Correct. PVST+ operates over both trunk types.

Explanation C. Incorrect. PVST only operates over ISL trunks.

Explanation D. Incorrect. This is not a valid STP type.

PrepLogic Question: 12383-1057

59. Review Question p. 24

Answers: A

Explanation A. Correct. VLAN 1 and any other VLAN that is created, STP is running by default on every switchport.

Explanation B. Incorrect. STP is enabled for active VLANs only.

Explanation C. Incorrect. STP is active on all ports by default. To disable STP on a port, you can use the switchport mode access command.

Explanation D. Incorrect. VLAN 1 and any other VLAN that is created, STP is running by default on every switchport.

PrepLogic Question: 12383-1058

60. Review Question p. 24

Answers: B, C

Explanation A. Incorrect. It is likely that you will want your root bridge to be as close to the core as possible. This is because typically, these switches have more redundancy than access layer switches.

Explanation B. Correct. You want your root switch to be able to handle its responsibilities reliably.

Explanation C. Correct. You need to design your STP so that a well defined redundant switch is waiting to take over the root bridge responsibilities in case of a failure.

Explanation D. Incorrect. Because STP is a layer 2 protocol, there is no need to choose a switch that has layer 3 capabilities as this does nothing to improve STP.

PrepLogic Question: 12383-1059

61. Review Question p. 24

Answers: A, E

Explanation A. Correct. You can set priorities to configure a switch so it is elected as root.

Explanation B. Incorrect. It is better to be able to control what switch is the root switch.

Explanation C. Incorrect. It is better to be able to control what switch is the secondary root switch.

Explanation D. Incorrect. It is better to be able to control what switch is the secondary root switch.

Explanation E. Correct. You can set priorities to configure a switch so it is elected as the secondary root.

PrepLogic Question: 12383-1060

62. Review Question p. 25

Answers: B

Explanation A. Incorrect. Section A is not the best location to define a root bridge.

Explanation B. Correct. This is the ideal location to create your root and secondary switches for STP.

Explanation C. Incorrect. Section C is not the best location to define a root bridge.

Explanation D. Incorrect. Section D is not the best location to define a root bridge.

PrepLogic Question: 12383-1061

63. Review Question p. 25

Answers: B

Explanation A. Incorrect. The command does not modify the MAC address.

Explanation B. Correct. This command is essentially a macro that modifies the priority for VLAN 128 which will let it be less than the default.

Explanation C. Incorrect. The command does not set the VLAN priority to 128.

Explanation D. Incorrect. The command does not set the VLAN priority to 128.

PrepLogic Question: 12383-1062

64. Review Question p. 26

Answers: D

Explanation A. Incorrect. The default value is not set to 10.

Explanation B. Incorrect. The default value is not set to 16384.

Explanation C. Incorrect. The default value is not set to 24576.

Explanation D. Correct. The default value is 32768.

Explanation E. Incorrect. The default value is not set to 19.

PrepLogic Question: 12383-1063

65. Review Question p. 26

Answers: C

Explanation A. Incorrect. The STP priority has not been manually modified.

Explanation B. Incorrect. Extended system-ID is being used in the example.

Explanation C. Correct. The STP priority has not changed but the switch is using extended system-id mode which adds the VLAN value (10) to the STP priority value to come up with a new STP priority.

Explanation D. Incorrect. If this were true, the STP priority would be lower.

PrepLogic Question: 12383-1064

66. Review Question p. 27

Answers: C

Explanation A. Incorrect. A reboot will not remove the switch from this failure condition.

Explanation B. Incorrect. STP is still running on VLAN 100.

Explanation C. Correct. The spanning-tree vlan 100 root primary is just a script that sets the priority for VLAN 100 to 24576. The switch checks the current root bridge priority prior to issuing the command and, if it is lower than 24,576, you receive the error.

Explanation D. Incorrect. Restarting STP will not remove the switch from the failure condition.

PrepLogic Question: 12383-1065

67. Review Question p. 27

Answers: B

Explanation A. Incorrect. Setting the cost to 50 will not get you the desired results.

Explanation B. Correct. The default cost for a FastEthernet link is 19. You would want to set the cost to be lower than 19 to make it more desirable.

Explanation C. Incorrect. This is not a valid way to manipulate path metrics.

Explanation D. Incorrect. This command sets the switch for VLAN 3 as the root but it does not change path cost.

PrepLogic Question: 12383-1066

68. Review Question p. 27

Answers: C

Explanation A. Incorrect. This is an STP timer.

Explanation B. Incorrect. This is an STP timer.

Explanation C. Correct. There is no hold-time timer in STP.

Explanation D. Incorrect. This is an STP timer.

PrepLogic Question: 12383-1067

69. Review Question p. 28

Answers: D

Explanation A. Incorrect. This command sets the STP max-age timer.

Explanation B. Incorrect. By default, the hello timer is 2 seconds.

Explanation C. Incorrect. This command sets the STP max-age timer.

Explanation D. Correct. By default, the hello timer is 2 seconds. This command properly configures the timer for 1 second.

PrepLogic Question: 12383-1068

70. Review Question p. 28

Answers: D

Explanation A. Incorrect. PortFast would not give you the desired results. Also, you would not want to use PortFast on links between the access and distribution layers.

Explanation B. Incorrect. BPDU guard would not give you the desired results. Also, you would not want to use BPDU guard on links between the access and distribution layers.

Explanation C. Incorrect. BackboneFast would not give you the desired results.

Explanation D. Correct. This setting is used on access-layer switches to more quickly converge STP when the forwarding link fails and there is a secondary link to the distribution layer.

PrepLogic Question: 12383-1069

71. Review Question p. 28

Answers: A, B

Explanation A. Correct. This command essentially is a macro that configures the following two commands:

Switch(config-if)# switchport mode access

Switch(config-if)# spanning-tree portfast

Explanation B. Correct. This command sets the port to not run STP and to allow the PC to connect to the network before the STP timer expires.

Explanation C. Incorrect. This is not a valid command.

Explanation D. Incorrect. Uplink fast should not be used on switchports used by end devices.

PrepLogic Question: 12383-1070

72. Review Question p. 29

Answers: C

Explanation A. Incorrect. UplinkFast is used for uplinks from the access layer to the

distribution layer.

Explanation B. Incorrect. PortFast is used on access ports that go to user devices.

Explanation C. Correct. This command is used to speed up STP convergence in the core.

Explanation D. Incorrect. RSTP is a modified version of standard 802.1d STP.

PrepLogic Question: 12383-1071

73. Review Question p. 29

Answers: C

Explanation A. Incorrect. This command shows activity on a specific interface.

Explanation B. Incorrect. This command lets you view the total number of switch ports currently in each of the STP states.

Explanation C. Correct. This command can be used to show the bridge ID and STP timers on a local switch.

Explanation D. Incorrect. This command lets you view the current STP UplinkFast status.

PrepLogic Question: 12383-1072

74. Review Question p. 29

Answers: A, D

Explanation A. Correct. We don't want a switch enabled with uplinkfast to be a root bridge because the command is used on access-layer switches. So the switch automatically raises the priority to 49152 which helps to insure it does not become the root bridge.

Explanation B. Incorrect. The bridge priority is raised when uplink fast is enabled.

Explanation C. Incorrect. The port cost is raised by a value of 3000 when uplink fast is enabled.

Explanation D. Correct. The port cost is raised by a value of 3000 when uplink fast is enabled.

PrepLogic Question: 12383-1073

75. Review Question p. 30

Answers: C

Explanation A. Incorrect. The port described is not a designated port.

Explanation B. Incorrect. The port described is not a root port.

Explanation C. Correct. The port described is an alternate port.

Explanation D. Incorrect. The port described is not a backup port.

Explanation E. Incorrect. The port described is not a redundant port.

PrepLogic Question: 12383-1074

76. Review Question p. 30

Answers: C

Explanation A. Incorrect. The command does not control BPDU message information.

Explanation B. Incorrect. The command is not a security feature.

Explanation C. Correct. The command controls where candidate root bridges can be connected and found on a network.

Explanation D. Incorrect. This describes BPDU guard.

PrepLogic Question: 12383-1075

77. Review Question p. 30

Answers: A

Explanation A. Correct. This is the correct syntax and configuration mode to enable root guard on a link.

Explanation B. Incorrect. This is not the proper syntax and the command is performed in interface configuration mode.

Explanation C. Incorrect. This is not the proper syntax.

Explanation D. Incorrect. The command is performed in interface configuration mode.

PrepLogic Question: 12383-1076

78. Review Question p. 31

Answers: C, E

Explanation A. Incorrect. This does not help detect or prevent the unexpected loss of BPDUs.

Explanation B. Incorrect. This does not help detect or prevent the unexpected loss of BPDUs.

Explanation C. Correct. Loop Guard keeps track of BPDU activity on non-designated ports. When BPDUs are missing on these ports, it implements mechanisms that block traffic and ultimately prevent loops.

Explanation D. Incorrect. This does not help detect or prevent the unexpected loss of BPDUs.

Explanation E. Correct. Unidirectional Link Detection (UDLD) monitors a link to insure traffic is bi-directional. If a fault occurs either on RX or TX, the port is placed into blocking mode and prevents any loops that may occur.

PrepLogic Question: 12383-1077

79. Review Question p. 31

Answers: A

Explanation A. Correct. Even though Loop Guard is configured at the interface level, when a problem occurs, blocking is done at a VLAN level.

Explanation B. Incorrect. Loop Guard does not block on a per-port basis.

Explanation C. Incorrect. Loop Guard does not block only access ports.

Explanation D. Incorrect. Loop Guard does not block at the trunk level.

PrepLogic Question: 12383-1078

80. Review Question p. 31

Answers: D

Explanation A. Incorrect. Passive mode does not notify support staff in the form of a log message.

Explanation B. Incorrect. Logging mode does not notify support staff in the form of a log message.

Explanation C. Incorrect. Aggressive mode does not notify support staff in the form of a log message.

Explanation D. Correct. In normal mode, nothing is blocked. When UDLD is detected the simply logs the issue.

PrepLogic Question: 12383-1079

81. Review Question p. 32

Answers: C

Explanation A. Incorrect. This is not the correct command to disable STP on a single port.

Explanation B. Incorrect. This is not the correct command to disable STP on a single port.

Explanation C. Correct. This command completely disables STP on a single port.

Explanation D. Incorrect. While this command does disable BPDUs, it disables them on all ports and not a single switchport.

PrepLogic Question: 12383-1080

82. Review Question p. 32

Answers: A

Explanation A. Correct. RSTP is the evolution of standard STP. It is an IEEE standard.

Explanation B. Incorrect. RSTP is an IEEE standard.

Explanation C. Incorrect. RSTP is defined as 802.1w. RSTP is simply an extension of standard STP but with faster convergence.

Explanation D. Incorrect. RSTP is simply an extension of standard STP but with faster convergence.

PrepLogic Question: 12383-1081

83. Review Question p. 32

Answers: C

Explanation A. Incorrect. RSTP is backwards compatible with STP.

Explanation B. Incorrect. STP and RSTP help to eliminate layer 2 loops. This is necessary on all layer 2 equipment.

Explanation C. Correct. RSTP is backwards compatible with STP.

Explanation D. Incorrect. Routing protocols run at layer 3 while spanning-tree works at layer 2.

PrepLogic Question: 12383-1082

84. Review Question p. 33

Answers: C

Explanation A. Incorrect. The details within the question do not describe an edge port.

Explanation B. Incorrect. The details within the question do not describe an edge port.

Explanation C. Correct. A point-to-point RSTP port is a port that connects to another switch and becomes a designated port.

Explanation D. Incorrect. The details within the question do not describe an edge port.

PrepLogic Question: 12383-1083

85. Review Question p. 33

Answers: D

Explanation A. Incorrect. PVST has a single instance of STP for each VLAN.

Explanation B. Incorrect. PVST has a single instance of STP for each VLAN.

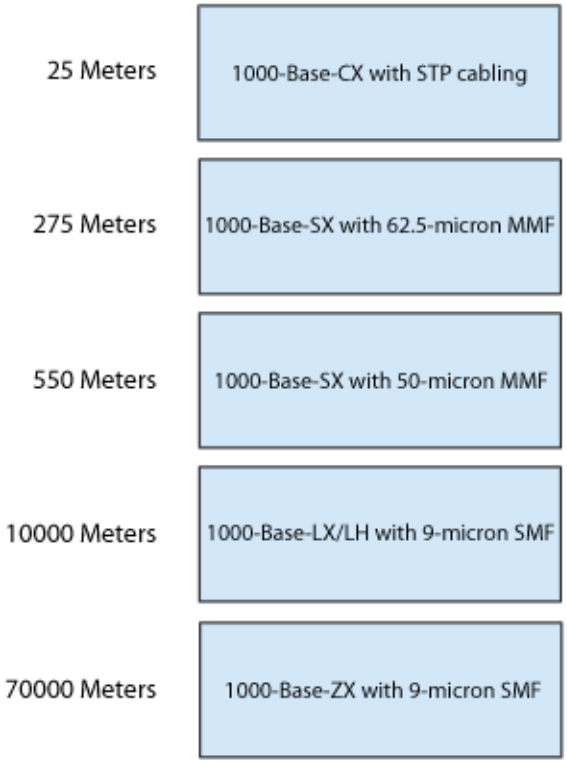
Explanation C. Incorrect. CST has only one instance of STP for all VLANs.

Explanation D. Correct. Multi-spanning-tree (MST) can map several VLANs with the same topology to a single instance of STP.

PrepLogic Question: 12383-1084

86. Review Question p. 34

Answer:

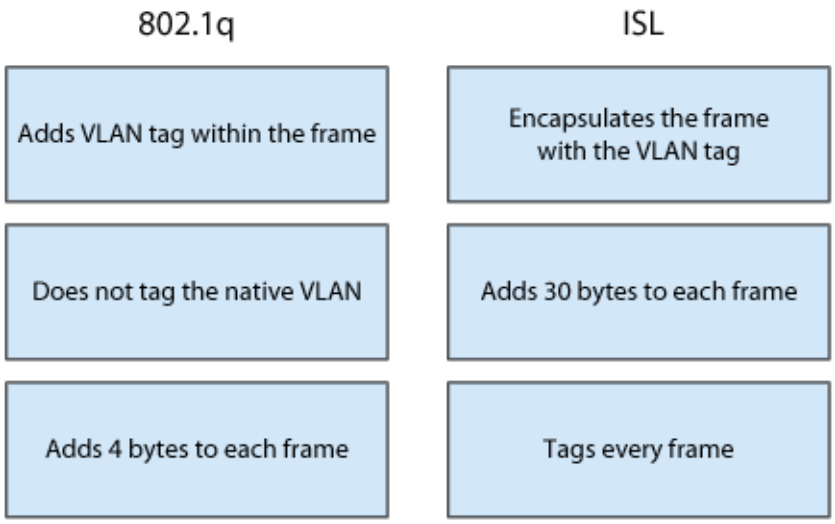


Explanation:

PrepLogic Question: 12383-10

87. Review Question p. 35

Answer:

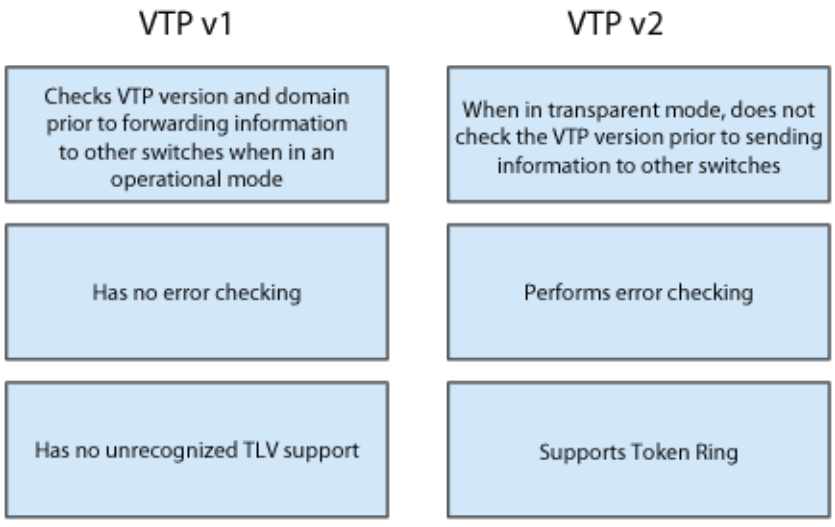


Explanation:

PrepLogic Question: 12383-11

88. Review Question p. 36

Answer:

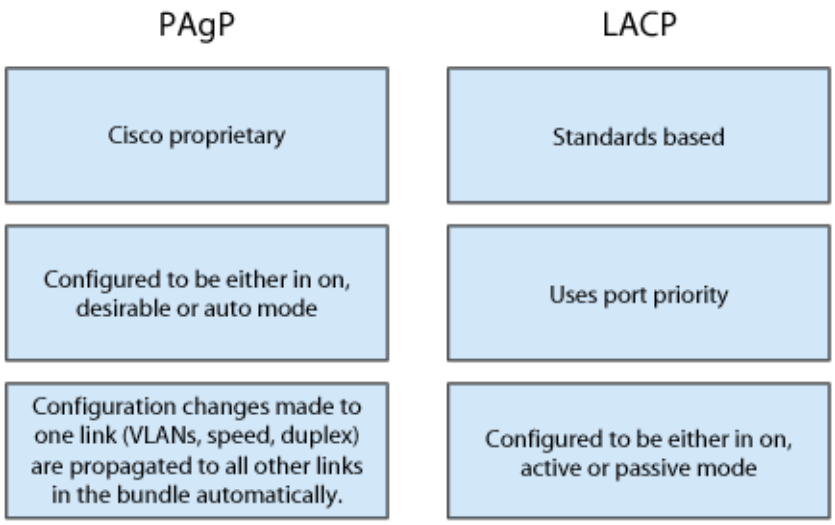


Explanation:

PrepLogic Question: 12383-12

89. Review Question p. 37

Answer:

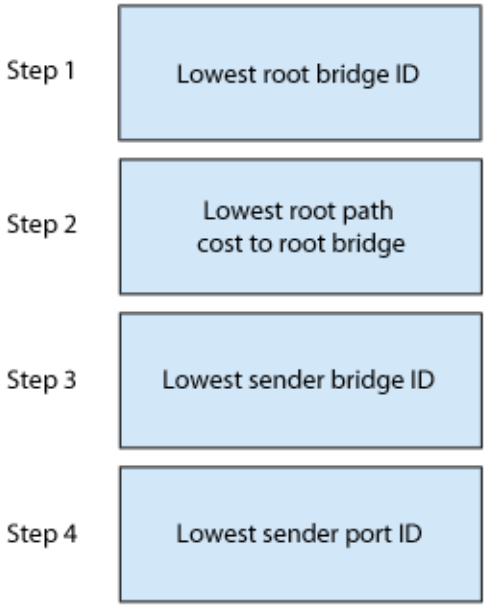


Explanation:

PrepLogic Question: 12383-13

90. Review Question p. 38

Answer:

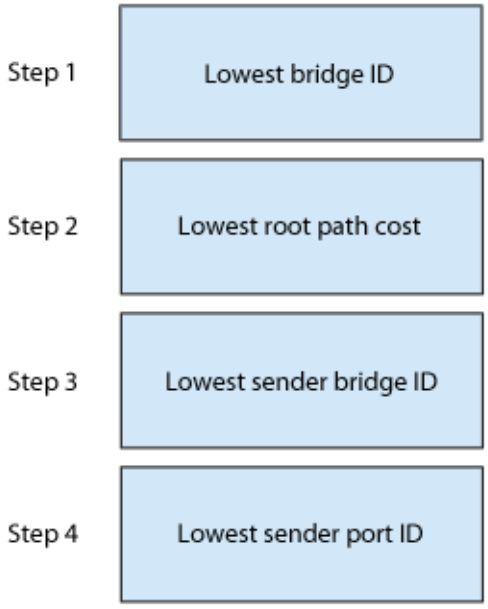


Explanation:

PrepLogic Question: 12383-14

91. Review Question p. 39

Answer:

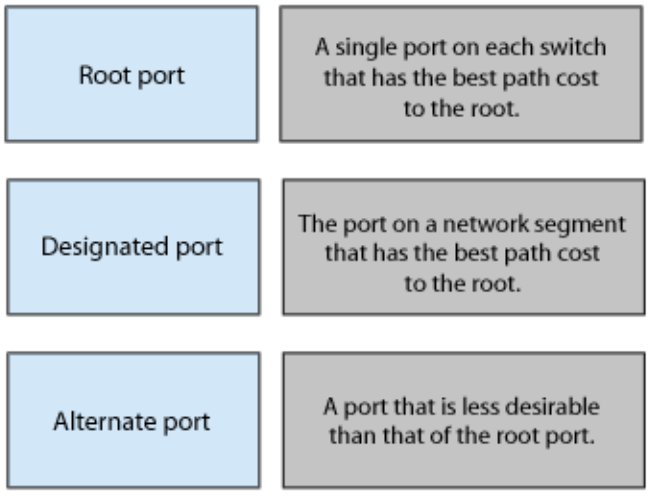


Explanation:

PrepLogic Question: 12383-15

92. Review Question p. 40

Answer:



Explanation:

PrepLogic Question: 12383-16

Explanations: Chapter 2

1. Review Question p. 41

Answers: A

Explanation A. Correct. Route-cache switching is an older technology that has been replaced by CEF.

Explanation B. Incorrect. This answer is not the best description of route-cache switching.

Explanation C. Incorrect. This answer is not the best description of route-cache switching.

Explanation D. Incorrect. This answer is not the best description of route-cache switching.

PrepLogic Question: 12383-1085

2. Review Question p. 41

Answers: A, D

Explanation A. Correct. This is one of the components of a CEF capable switch.

Explanation B. Incorrect. This is not one of the components of a CEF capable switch.

Explanation C. Incorrect. This is not one of the components of a CEF capable switch.

Explanation D. Correct. This is one of the components of a CEF capable switch.

PrepLogic Question: 12383-1086

3. Review Question p. 41

Answers: A

Explanation A. Correct. The FIB adjacency table lists the layer 2 MAC addresses of all the next hop devices on a give port.

Explanation B. Incorrect. CAM table is not the correct name.

Explanation C. Incorrect. TCAM table is not the correct name.

Explanation D. Incorrect. Routing table is not the correct name.

PrepLogic Question: 12383-1087

4. Review Question p. 42

Answers: B

Explanation A. Incorrect. This is not the correct MAC address.

Explanation B. Correct. The first 12 digits of the longer Hex information is the MAC address of the device with the IP address of 192.168.1.101

Explanation C. Incorrect. This is not the correct MAC address.

Explanation D. Incorrect. This is not the correct MAC address.

PrepLogic Question: 12383-1088

5. Review Question p. 42

Answers: A

Explanation A. Correct. This means that the Layer 3 forwarding engine can't forward the packet in hardware because of the missing Layer 2 next-hop address.

Explanation B. Incorrect. The FIB entry will not be marked as CEF absent.

Explanation C. Incorrect. The FIB entry will not be marked as CEF absent.

Explanation D. Incorrect. The FIB entry will not be marked as CEF absent.

PrepLogic Question: 12383-1089

6. Review Question p. 42

Answers: D

Explanation A. Incorrect. This describes a null adjacency.

Explanation B. Incorrect. This describes a drop adjacency.

Explanation C. Incorrect. This describes a discard adjacency.

Explanation D. Correct. This best describes a punt adjacency.

PrepLogic Question: 12383-1090

7. Review Question p. 43

Answers: B

Explanation A. Incorrect. This is not a valid reason to disable CEF on a switch.

Explanation B. Correct. You may find yourself needing to disable CEF for troubleshooting using debug commands. By disabling CEF, you force the switch to use non-hardware methods to forward packets which debugging commands can see.

Explanation C. Incorrect. This is not a valid reason to disable CEF on a switch.

Explanation D. Incorrect. This is not a valid reason to disable CEF on a switch.

PrepLogic Question: 12383-1091

8. Review Question p. 43

Answers: C

Explanation A. Incorrect. The setup does not use a multi-layer switch.

Explanation B. Incorrect. The setup does not use a route switch processor.

Explanation C. Correct. The topology described is a router-on-a-stick setup.

Explanation D. Incorrect. CEF has nothing to do with the question.

PrepLogic Question: 12383-1092

9. Review Question p. 43

Answers: D

Explanation A. Incorrect. Neither source nor destination IP address information ever changes.

Explanation B. Incorrect. Neither source nor destination IP address information ever changes.

Explanation C. Incorrect. Neither source nor destination IP address information ever changes.

Explanation D. Correct. Neither source nor destination IP address information ever changes.

PrepLogic Question: 12383-1093

Explanations: Chapter 3

1. Review Question p. 44

   Answers: C

   Explanation A. Incorrect. This is a characteristic that an access layer switch should have.

   Explanation B. Incorrect. This is a characteristic that an access layer switch should have.

   Explanation C. Correct. This is not typically a characteristic of the access layer switch.

   Explanation D. Incorrect. This is a characteristic that an access layer switch should have.

   PrepLogic Question: 12383-1094

2. Review Question p. 44

   Answers: B

   Explanation A. Incorrect. This is not part of the standard 3 tiered model.

   Explanation B. Correct. The goal of the core is very fast and efficient packet switching. Because of this, packet filtering is done at the lower tiers.

   Explanation C. Incorrect. Packet filtering is often done at this level of the three-tiered model.

   Explanation D. Incorrect. Packet filtering is often done at this level of the three-tiered model.

   PrepLogic Question: 12383-1095

3. Review Question p. 44

   Answers: E

   Explanation A. Incorrect. 8000 is not the maximum number of users that Cisco recommends.

   Explanation B. Incorrect. 254 is not the maximum number of users that Cisco recommends.

Explanation C. Incorrect. 1024 is not the maximum number of users that Cisco recommends.

Explanation D. Incorrect. 5000 is not the maximum number of users that Cisco recommends.

Explanation E. Correct. According to Cisco, you should limit the number of users on a switch block to 2000.

PrepLogic Question: 12383-1096

4. Review Question p. 45

Answers: B, C

Explanation A. Incorrect. This is not one of the two primary methods for determining switch block capacity.

Explanation B. Correct. If possible, determine how your users will use network resources and other things such as usage time and traffic flow.

Explanation C. Correct. Large organizations typically have departments where multiple users do similar tasks such as accounting or sales departments. Network resource behavior is often similar for users in workgroups and can help judge the size of a switch block.

Explanation D. Incorrect. This is not one of the two primary methods for determining switch block capacity.

Explanation E. Incorrect. This is not one of the two primary methods for determining switch block capacity.

PrepLogic Question: 12383-1097

5. Review Question p. 45

Answers: D

Explanation A. Incorrect. There is not a separate broadcast domain for every switchport.

Explanation B. Incorrect. There may or may not be one broadcast domain on a particular switch. It depends on how the switch is configured.

Explanation C. Incorrect. There is not a broadcast domain for each STP instance.

Explanation D. Correct. Every VLAN is its own broadcast domain.

PrepLogic Question: 12383-1098

6. Review Question p. 45

Answers: D

Explanation A. Incorrect. This is not the primary reason for modeling a design after a hierarchal design methodology.

Explanation B. Incorrect. This is not the primary reason for modeling a design after a hierarchal design methodology.

Explanation C. Incorrect. This is not the primary reason for modeling a design after a hierarchal design methodology.

Explanation D. Correct. Hierarchical network designs help make the network more predictable because they can be built on best-practice documents. Also, it helps to be more scalable and easier to add on other networking components easily.

PrepLogic Question: 12383-1099

7. Review Question p. 46

Answers: B

Explanation A. Incorrect. 4 distribution blocks is not the best practice method inside each switch block.

Explanation B. Correct. Two distribution blocks are the best practice method inside each switch block.

Explanation C. Incorrect. 1 distribution block is not the best practice method inside each switch block.

Explanation D. Incorrect. 8 distribution blocks are not the best practice method inside each switch block.

PrepLogic Question: 12383-1100

8. Review Question p. 46

Answers: D

Explanation A. Incorrect. Dual core is not the correct term.

Explanation B. Incorrect. Distribution core is not the correct term.

Explanation C. Incorrect. Layered core is not the correct term.

Explanation D. Correct. A collapsed core is basically the combination of the core and distribution layers on a single (or redundant pair) switch.

PrepLogic Question: 12383-1101

9. Review Question p. 46

Answers: C

Explanation A. Incorrect. HSRP provides layer 3 redundancy on a network.

Explanation B. Incorrect. VRRP provides layer 3 redundancy on a network.

Explanation C. Correct. RSTP is a layer 2 protocol that prevents loops. It does not do any layer 3 load balancing.

Explanation D. Incorrect. GLBP provides layer 3 redundancy on a network.

PrepLogic Question: 12383-1102

10. Review Question p. 47

Answers: C

Explanation A. Incorrect. HSRP messages are not sent using unicast methods.

Explanation B. Incorrect. HSRP messages are not sent using broadcast methods.

Explanation C. Correct. HSRP messages are sent using the multicast address of 224.0.0.2 on UDP port 1985.

Explanation D. Incorrect. HSRP messages are sent inside IP headers.

PrepLogic Question: 12383-1103

11. Review Question p. 47

Answers: D

Explanation A. Incorrect. The group numbers are not based on VLAN ID.

Explanation B. Incorrect. The group numbers are locally significant.

Explanation C. Incorrect. The group numbers must fall within a range of numbers but not 1 to 1024.

Explanation D. Correct. The group numbers are arbitrary and are locally significant on an interface.

PrepLogic Question: 12383-1104

12. Review Question p. 47

Answers: A

Explanation A. Correct. The command is an interface configuration command and the highest priority becomes the active router.

Explanation B. Incorrect. The priority number in the above command is too low.

Explanation C. Incorrect. The command is an interface configuration command.

Explanation D. Incorrect. The command is an interface configuration command and the number in the above command is too low.

PrepLogic Question: 12383-1105

13. Review Question p. 48

Answers: C

Explanation A. Incorrect. The holddown timer should be set higher than one half the hello timer setting.

Explanation B. Incorrect. The holddown timer should be set higher than one third the hello timer setting.

Explanation C. Correct. The holddown timer should be three times the hello timer.

Explanation D. Incorrect. The holddown timer should be set higher than two times the hello timer setting.

PrepLogic Question: 12383-1106

14. Review Question p. 48

Answers: B

Explanation A. Incorrect. HSRP monitoring is not the term that describes the mechanism for detecting link failures and gives other HSRP routers the opportunity to

take over the active role.

Explanation B. Correct. Tracking is how non-active HSRP routers monitor the active HSRP router for a failure. If one is detected, the router in standby mode becomes active.

Explanation C. Incorrect. Standby group is not the term that describes the mechanism for detecting link failures and gives other HSRP routers the opportunity to take over the active role.

Explanation D. Incorrect. Standby preempt sis not the term that describes the mechanism for detecting link failures and gives other HSRP routers the opportunity to take over the active role.

PrepLogic Question: 12383-1107

15. Review Question p. 48

Answers: A

Explanation A. Correct. HSRP virtual MACs always have the first 10 Hex digits of 0000.0c07.acXX. The last 2 digits represent the HSRP group number that was configured.

Explanation B. Incorrect. HSRP virtual MACs always have the first 10 Hex digits of 0000.0c07.acXX. The last 2 digits represent the HSRP group number that was configured.

Explanation C. Incorrect. HSRP virtual MACs always have the first 10 Hex digits of 0000.0c07.acXX. The last 2 digits represent the HSRP group number that was configured.

Explanation D. Incorrect. HSRP virtual MACs always have the first 10 Hex digits of 0000.0c07.acXX. The last 2 digits represent the HSRP group number that was configured.

PrepLogic Question: 12383-1108

16. Review Question p. 49

Answers: B

Explanation A. Incorrect. Setting a router to preempt does not mean that it will automatically be used as the primary default gateway.

Explanation B. Correct. The best way to load balance these two gateways is to insure that one gateway is given priority on S1 and the other has priority on S2. That way, you

are load-balancing traffic on a subnet-by-subnet basis.

Explanation C. Incorrect. Setting a router to preempt does not mean that it will automatically be used as the primary default gateway.

Explanation D. Incorrect. Setting a router to preempt does not mean that it will automatically be used as the primary default gateway.

PrepLogic Question: 12383-1109

17. Review Question p. 49

Answers: A

Explanation A. Correct. As long as the router priority is greater, it will automatically become the master.

Explanation B. Incorrect. This command will not cause the router to preempt.

Explanation C. Incorrect. This command will not cause the router to preempt.

Explanation D. Incorrect. This command will not cause the router to preempt.

PrepLogic Question: 12383-1110

18. Review Question p. 50

Answers: A

Explanation A. Correct. Here is the method of choosing the AVG:

1. Highest priority

2. Highest IP address

Explanation B. Incorrect. GLBP does not use the highest MAC address when determining the AVG.

Explanation C. Incorrect. GLBP does not use the lowest priority value when determining the AVG.

Explanation D. Incorrect. GLBP does not use the highest MAC address when determining the AVG.

PrepLogic Question: 12383-1111

19. Review Question p. 50

Answers: D

Explanation A. Incorrect. GLBP hellos are not sent every two seconds.

Explanation B. Incorrect. GLBP hellos are not sent every five seconds.

Explanation C. Incorrect. GLBP hellos are not sent every second.

Explanation D. Correct. The hellos are sent every three seconds.

PrepLogic Question: 12383-1112

20. Review Question p. 51

Answers: B

Explanation A. Incorrect. The GLBP router does not send an ARP refresh multicast.

Explanation B. Correct. The client devices either have to refresh the ARP table manually, wait for the entry to expire, or reboot the device.

Explanation C. Incorrect. The GLBP router does not send an ARP refresh broadcast.

Explanation D. Incorrect. The GLBP router does not send an ARP refresh unicast.

PrepLogic Question: 12383-1113

21. Review Question p. 51

Answers: B

Explanation A. Incorrect. This is a valid load-balancing method for GLBP.

Explanation B. Correct. This is not a valid load-balancing method for GLBP.

Explanation C. Incorrect. This is a valid load-balancing method for GLBP.

Explanation D. Incorrect. This is a valid load-balancing method for GLBP.

PrepLogic Question: 12383-1114

22. Review Question p. 52

Answers: D

Explanation A. Incorrect. The GLBP router does not use its own MAC address to respond to clients of the failed gateway.

Explanation B. Incorrect. The peer router will not discard its own MAC address and instead uses the downed peer's MAC address to respond to clients of the failed gateway.

Explanation C. Incorrect. The peer router will not use a new virtual MAC address and requests that clients clear the ARP table so the new MAC will be propagated to all devices using that gateway IP address.

Explanation D. Correct. The peer router will respond using both it's MAC address for clients associated to it as well as the failed peer MAC address to service clients associated to the downed router.

PrepLogic Question: 12383-1115

23. Review Question p. 52

Answers: C

Explanation A. Incorrect. GLBP is a gateway redundancy protocol.

Explanation B. Incorrect. RPR does not actively have layer 2 information maintained on both supervisor modules so that hardware switching can continue during a failover.

Explanation C. Correct. Stateful switchover is different from RPR and RPR+ in the fact that layer 2 information is actively maintained on both supervisor modules.

Explanation D. Incorrect. RPR+ does not actively have layer 2 information maintained on both supervisor modules so that hardware switching can continue during a failover.

PrepLogic Question: 12383-1116

24. Review Question p. 53

Answers: B

Explanation A. Incorrect. This is not the correct syntax for configuring RPR+.

Explanation B. Correct. First you must enter config-red mode and then define the redundancy method between rpr, rpr-plus and sso.

Explanation C. Incorrect. This is not the correct syntax for configuring RPR+.

Explanation D. Incorrect. This is not the correct syntax for configuring RPR+.

PrepLogic Question: 12383-1117

25. Review Question p. 53

Answers: C

Explanation A. Incorrect. This is not the correct action that RPR+ will take.

Explanation B. Incorrect. This is not the correct action that RPR+ will take.

Explanation C. Correct. If RPR+ is configured and the IOS images differ on the supervisors, the switch will revert and use standard RPR which does not require identical IOS versions.

Explanation D. Incorrect. This is not the correct action that RPR+ will take.

PrepLogic Question: 12383-1118

26. Review Question p. 54

Answers: D

Explanation A. Incorrect. NSF is supported on this routing protocol.

Explanation B. Incorrect. NSF is supported on this routing protocol.

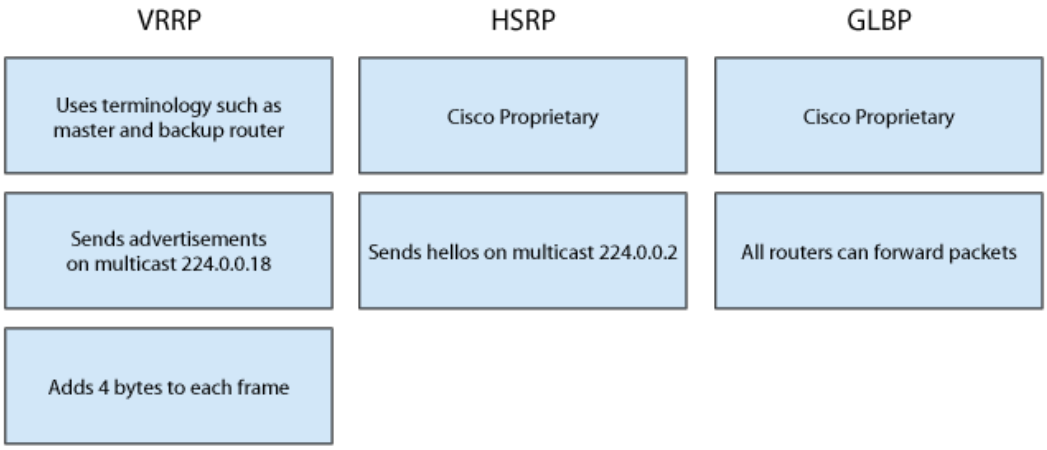
Explanation C. Incorrect. NSF is supported on this routing protocol.

Explanation D. Correct. RIP version 2 (and version 1) does not support NSF.

PrepLogic Question: 12383-1119

27. Review Question p. 55

Answer:

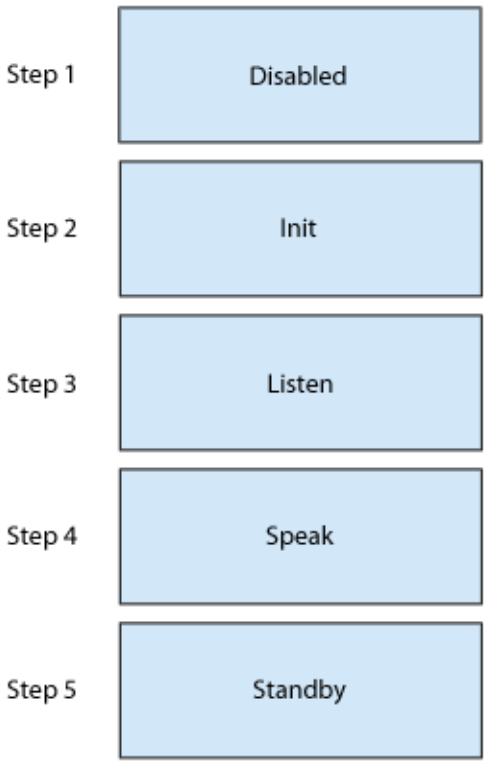


Explanation:

PrepLogic Question: 12383-17

28. Review Question p. 56

Answer:



Explanation:

PrepLogic Question: 12383-18

Explanations: Chapter 4

1. Review Question p. 57

   Answers: A

   Explanation A. Correct. The IEEE 802.3af is a vendor neutral standard.

   Explanation B. Incorrect. Inline Power (ILP) is Cisco proprietary.

   Explanation C. Incorrect. This is not a PoE method.

   Explanation D. Incorrect. Intelligent Power Management (IPM) is not a PoE method but a Cisco proprietary method of managing power on a switch to be more efficiently used.

   PrepLogic Question: 12383-1120

2. Review Question p. 57

   Answers: D

   Explanation A. Incorrect. The maximum power output of a class 0 device is 15.4 Watts.

   Explanation B. Incorrect. The maximum power output of a class 3 device is 15.4 Watts.

   Explanation C. Incorrect. The maximum power output of a class 1 device is 4.0 Watts.

   Explanation D. Correct. The correct answer is Class 2 which powers devices that require up to 7 Watts.

   PrepLogic Question: 12383-1121

3. Review Question p. 58

   Answers: D

   Explanation A. Incorrect. The administrative status of devices is not useful when planning to add additional PoE devices.

   Explanation B. Incorrect. The operational status of devices is not useful when planning to add additional PoE devices.

   Explanation C. Incorrect. The PoE class of devices is not useful when planning to add

additional PoE devices.

Explanation D. Correct. When dealing with adding PoE, the most important thing to verify is the remaining power available on the switch. In this case, there is 289.4 Watts available. You can use this number to determine how many PoE devices can be added to this switch.

PrepLogic Question: 12383-1122

4. Review Question p. 58

Answers: A

Explanation A. Correct. This is how you configure an 802.1p voice vlan on a switchport.

Explanation B. Incorrect. This is not the correct syntax for configuring an 802.1p voice VLAN.

Explanation C. Incorrect. This is not the correct syntax for configuring an 802.1p voice VLAN.

Explanation D. Incorrect. This is not the correct syntax for configuring an 802.1p voice VLAN.

PrepLogic Question: 12383-1123

5. Review Question p. 59

Answers: C

Explanation A. Incorrect. This is a valid tagging method.

Explanation B. Incorrect. This is a valid tagging method.

Explanation C. Correct. This is not a valid tagging method.

Explanation D. Incorrect. This is a valid tagging method.

PrepLogic Question: 12383-1124

6. Review Question p. 59

Answers: B

Explanation A. Incorrect. QoS helps to smooth out transmissions of voice calls, which reduces jitter.

Explanation B. Correct. This is not something that QoS does.

Explanation C. Incorrect. QoS helps to eliminate dropped voice packets on congested networks by insuring that less important packets are dropped first.

Explanation D. Incorrect. QoS helps to lower packet delay by giving it priority on the network.

PrepLogic Question: 12383-1125

7. Review Question p. 59

Answers: C

Explanation A. Incorrect. Voice traffic is not typically tagged with an IP precedence of 1.

Explanation B. Incorrect. Voice traffic is not typically tagged with an IP precedence of 0.

Explanation C. Correct. Voice traffic is most commonly tagged with an IP precedence value of 5.

Explanation D. Incorrect. Voice traffic is not typically tagged with an IP precedence of 7.

PrepLogic Question: 12383-1126

8. Review Question p. 60

Answers: A

Explanation A. Correct. Class 0 is for best effort traffic. Most data traffic is classified here.

Explanation B. Incorrect. A IP precedence of class 0 is not referred to as assured forwarding.

Explanation C. Incorrect. An IP precedence of class 0 is not referred to as expedited forwarding.

Explanation D. Incorrect. An IP precedence of class 0 is not referred to as network control forwarding.

PrepLogic Question: 12383-1127

9. Review Question p. 60

Answers: A, D

Explanation A. Correct. The first portion of the DSCP value is a 3-bit class selector.

Explanation B. Incorrect. The DSCP value is not divided into a 3-bit checksum value.

Explanation C. Incorrect. The DSCP value is not divided into a 3-bit TOS value.

Explanation D. Correct. The second portion of the DSCP value is a 3-bit Drop Precedence value.

Explanation E. Incorrect. The DSCP value is not divided into a 3-bit QoS tag value.

PrepLogic Question: 12383-1128

10. Review Question p. 60

Answers: D

Explanation A. Incorrect. This is a valid trust option.

Explanation B. Incorrect. This is a valid trust option.

Explanation C. Incorrect. This is a valid trust option.

Explanation D. Correct. RSTP is not a trust option. It is a spanning-tree method.

PrepLogic Question: 12383-1129

11. Review Question p. 61

Answers: B

Explanation A. Incorrect. The command given in the answer is not the correct syntax for viewing QoS trust status information.

Explanation B. Correct. This command shows QoS port information including trust state, trust mode, and trust enabled flag.

Explanation C. Incorrect. The command given in the answer is not the correct syntax for viewing QoS trust status information.

Explanation D. Incorrect. The command given in the answer is not the correct syntax for viewing QoS trust status information.

PrepLogic Question: 12383-1130

Explanations: Chapter 5

1. Review Question p. 62
   Answers: C

   Explanation A. Incorrect. Cisco Port security is not based on IP address.

   Explanation B. Incorrect. Cisco Port security is not based on static routes.

   Explanation C. Correct. Port security is based on MAC addresses.

   Explanation D. Incorrect. Cisco Port security is not based on VLAN number.

   PrepLogic Question: 12383-1131

2. Review Question p. 62
   Answers: D

   Explanation A. Incorrect. The maximum number is not 254.

   Explanation B. Incorrect. The maximum number is not 128.

   Explanation C. Incorrect. The maximum number is not unlimited.

   Explanation D. Correct. When port security is enabled on a switch, you can configure the switch to learn a maximum of 1024 MAC addresses with which it will allow.

   PrepLogic Question: 12383-1132

3. Review Question p. 62
   Answers: B

   Explanation A. Incorrect. This is a valid port security violation action.

   Explanation B. Correct. This is not a valid port security violation action.

   Explanation C. Incorrect. This is a valid port security violation action.

   Explanation D. Incorrect. This is a valid port security violation action.

   PrepLogic Question: 12383-1133

4. Review Question p. 63

Answers: A

Explanation A. Correct. RADIUS servers are remote authentication servers. This command states that 802.1x will use these servers to authenticate clients.

Explanation B. Incorrect. Using this command, the switch will look to a non-local source for authentication.

Explanation C. Incorrect. There is no such thing as 802.1x trunking.

Explanation D. Incorrect. The word "radius" in the command is not a local user but a special group that contains a list of one or more authentication servers.

PrepLogic Question: 12383-1134

5. Review Question p. 63

Answers: A

Explanation A. Correct. Once the client has a default gateway of the offending DHCP server, all traffic can be seen, recorded and manipulated.

Explanation B. Incorrect. A DHCP Spoofing attack does not originate from a client device.

Explanation C. Incorrect. A DHCP Spoofing attack goes after end devices such as PC's. Routers are not commonly configured as DHCP clients.

Explanation D. Incorrect. A DHCP Spoofing attack goes after end devices such as PC's. Switches are not commonly configured as DHCP clients.

PrepLogic Question: 12383-1135

6. Review Question p. 63

Answers: B

Explanation A. Incorrect. This is a valid way to verify ARP reply packets.

Explanation B. Correct. This is not a valid way to verify ARP reply packets.

Explanation C. Incorrect. This is a valid way to verify ARP reply packets.

Explanation D. Incorrect. This is a valid way to verify ARP reply packets.

PrepLogic Question: 12383-1136

7. Review Question p. 64

Answers: C

Explanation A. Incorrect. VACLs cannot rewrite IP packets.

Explanation B. Incorrect. VACLs cannot rate limit IP packets.

Explanation C. Correct. VACLs can drop, forward and redirect packets.

Explanation D. Incorrect. VACLs cannot mirror IP packets.

PrepLogic Question: 12383-1137

8. Review Question p. 64

Answers: C

Explanation A. Incorrect. The isolated PVLAN has complete Layer 2 separation from the other ports within the same PVLAN, but not from promiscuous ports.

Explanation B. Incorrect. The promiscuous PVLAN can communicate with all interfaces, including the isolated and community ports within a PVLAN.

Explanation C. Correct. The Community PVLAN allows clients to communicate with each other and with the primary VLAN but not with any other secondary VLAN.

Explanation D. Incorrect. There is no such thing as a guarded PVLAN port.

PrepLogic Question: 12383-1138

9. Review Question p. 64

Answers: C

Explanation A. Incorrect. This is one of the conditions that must be met.

Explanation B. Incorrect. This is one of the conditions that must be met.

Explanation C. Correct. This is not one of the conditions that must be met for VLAN hopping to work.

Explanation D. Incorrect. This is one of the conditions that must be met.

PrepLogic Question: 12383-1139

10. Review Question p. 65

Answers: B

Explanation A. Incorrect. The command is not performed in interface configuration mode.

Explanation B. Correct. This forces the switch to tag the native VLAN. By default, 802.1q trunks do not tag the native VLAN which can cause security issues.

Explanation C. Incorrect. This is not the correct syntax or configuration mode.

Explanation D. Incorrect. This is not the correct syntax for enabling VLAN tagging on native 802.1q trunks.

PrepLogic Question: 12383-1140

11. Review Question p. 65

Answers: A

Explanation A. Correct. The promiscuous mode is for gateway devices. All other devices such as PC's and other end stations should use the host command.

Explanation B. Incorrect. The given command is not the correct syntax.

Explanation C. Incorrect. The given command is not the correct syntax.

Explanation D. Incorrect. The given command is not the correct syntax.

PrepLogic Question: 12383-1141