Huawei H12-811_V2.0 Mock Exam

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Question 1

Question Type: MultipleChoice

On the network shown in the figure, all switches run STP. All links have a path cost of 20, and SW1 is the root bridge. What is the root path cost (RPC) of SW4?

Options:

A- 20
B- 40
C- 60
D- 80

Answer:

B

Explanation:

The root path cost (RPC) of a switch is the total path cost from that switch to the root bridge along the selected spanning-tree path. Since SW1 is given as the root bridge, its RPC is 0. Each link in the topology has a path cost of 20. To determine SW4's RPC, you identify the shortest active STP path from SW4 to SW1.

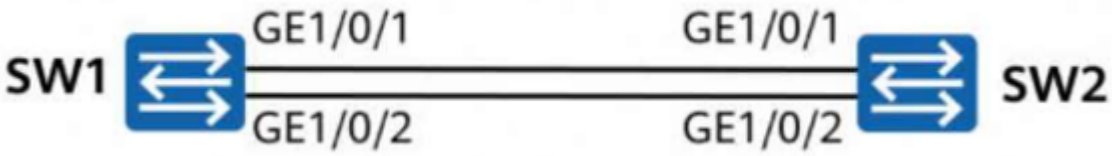
Based on the topology used in the question, SW4 reaches SW1 through a path containing two links. Therefore, the total root path cost is 20 + 20 = 40, which makes option B correct. This is a standard STP calculation. HCIA-Datacom uses RPC as one of the main comparison parameters in root-port election on non-root switches. A lower RPC means a better path toward the root bridge. If multiple candidate ports have the same RPC, the switch then compares the sender's bridge ID and port ID. This question checks whether the learner understands that RPC is cumulative across the spanning-tree forwarding path and is not simply the cost of a single directly connected link unless the switch is directly attached to the root bridge.

Question 2

Question Type: MultipleChoice

On the network shown in the figure, the administrator creates Eth-Trunk 1 in manual mode on SW1 and SW2, and adds GE1/0/1 and GE1/0/2 on both switches to the Eth-Trunk. After the administrator runs the display interface brief command on SW1, the administrator finds that

GE1/0/1 is Up and GE1/0/2 is Down. Which of the following statements is true about this scenario?



Options:

A- Eth-Trunk 1 is Up because it is Up as long as one member interface is Up.
B- Eth-Trunk 1 is Down because the states of member interfaces must be the same in manual mode.
C- Eth-Trunk 1 is Down because it has only two member interfaces and the minimum number of active links is not reached after one member interface is Down.
D- Eth-Trunk 1 is Down because all member interfaces of the Eth-Trunk must be Up.

Answer:

A

Explanation:

For an Eth-Trunk operating in manual load-balancing mode, the logical Eth-Trunk interface can remain Up as long as at least one member link is operational and properly added to the trunk. Therefore, if GE1/0/1 is Up and GE1/0/2 is Down, Eth-Trunk 1 can still stay Up, making option A correct.

Option B is incorrect because member interfaces in a manual Eth-Trunk do not need to be in identical physical states for the trunk itself to remain operational. Option C is also incorrect because there is no inherent rule here that two-member trunks must have both links active unless a separate minimum-links mechanism has been explicitly configured. No such condition is stated in the question. Option D is false because one of the key purposes of Eth-Trunk is redundancy; requiring all member interfaces to be Up would defeat that design advantage. HCIA-Datacom teaches that Eth-Trunk enhances link reliability by allowing continued forwarding when part of the bundle fails, provided the trunk still has an active forwarding member.

Question 3

Question Type: MultipleChoice

In Layer 3 in-path WLAN networking, the WAC and Fit APs are connected at Layer 3. APs can

obtain the WAC's address through broadcast or DHCP.

Options:

A- TRUE
B- FALSE

Answer:

B

Explanation:

This statement is false. In Layer 3 in-path WLAN networking, the WAC and Fit APs communicate over Layer 3, which means the APs must discover the WAC through methods that are valid across Layer 3 boundaries. Broadcast is a Layer 2 mechanism and cannot normally be used for WAC discovery across Layer 3 networks. Therefore, saying that APs can obtain the WAC address through broadcast or DHCP in this scenario is incorrect.

In Huawei WLAN deployments, Fit APs can commonly discover the WAC address through methods such as DHCP option-based discovery, DNS, or preconfigured controller information, depending on the deployment model and product features. Because the WAC and AP are not in the same Layer 2 broadcast domain in Layer 3 in-path networking, broadcast discovery is not the standard mechanism here. HCIA-Datacom stresses the difference between Layer 2 direct discovery and Layer 3 discovery methods because this affects initial AP registration, CAPWAP establishment, and troubleshooting when APs fail to go online. Understanding the discovery mechanism is essential when planning IP addressing, DHCP options, and controller placement in enterprise WLAN designs.

Question 4

Question Type: MultipleChoice

With the release of Wi-Fi 7, wireless networks are now faster, more stable, and more latency-tolerant than ever. Which of the following frequency bands are supported by Wi-Fi 7? (Select all that apply)

Options:

A- 5 GHz

B- 9.6 GHz
C- 6 GHz
D- 2.4 GHz

Answer:

A, C, D

Explanation:

Wi-Fi 7 supports operation in the 2.4 GHz, 5 GHz, and 6 GHz frequency bands, so options A, C, and D are correct. These three bands together provide flexible coverage and capacity options. The 2.4 GHz band offers better propagation and wider coverage, while the 5 GHz and 6 GHz bands provide more channels, higher capacity, and better support for high-speed, low-latency services.

Option B, 9.6 GHz, is incorrect because it is not a Wi-Fi 7 operating band. HCIA-Datacom WLAN content highlights Wi-Fi 7 as a major advancement in wireless performance, bringing improvements in throughput, channel usage, spectrum efficiency, and latency characteristics. The addition and use of the 6 GHz band is especially important because it expands available spectrum resources and helps reduce contention in dense wireless environments. In practical enterprise WLAN design, understanding supported frequency bands is essential for channel planning, interference control, device compatibility assessment, and service optimization. This question checks whether the learner can correctly identify the standard operating bands used by modern Wi-Fi 7 networks.

Question 5

Question Type: MultipleChoice

OSPF has five types of packets. Which type is used to notify an OSPF neighbor of its required LSAs?

Options:

A- DD
B- LSR
C- LSU
D- Hello

Answer:

B

Explanation:

In OSPF, the packet type used to request specific link-state advertisements from a neighbor is the Link State Request (LSR) packet. Therefore, option B is correct. During database synchronization, OSPF neighbors first discover each other with Hello packets, then exchange summaries of their databases using Database Description (DD) packets. If one router finds that it is missing certain LSAs or has older versions, it sends an LSR packet to request the needed LSAs from its neighbor.

The neighbor then responds with a Link State Update (LSU) packet containing the requested LSAs. Finally, the receiving router confirms proper receipt with a Link State Acknowledgment (LSAck) packet. HCIA-Datacom emphasizes understanding the roles of these five OSPF packet types because they are central to neighbor formation, adjacency establishment, and LSDB synchronization. This question specifically tests whether the learner can distinguish between the request packet (LSR) and the update packet (LSU). The router does not use a DD packet to request detailed LSA content; DD packets provide database summaries, while LSR packets explicitly request the LSAs that are needed.

Question 6

Question Type: MultipleChoice

Which of the following IPv6 addresses is a link-local address?

Options:

A- FD00::FA63:DBFF:FE9E:10
B- FC00::FA63:DBFF:FE9E:10
C- FE80::FA63:DBFF:FE9E:10
D- 2001::FA63:DBFF:FE9E:10

Answer:

C

Explanation:

In IPv6, link-local addresses use the prefix FE80::/10. These addresses are automatically

generated or configured for communication on the local link only and are not routed across Layer 3 boundaries. Therefore, among the given options, FE80::FA63:DBFF:FE9E:10 is the correct link-local address, making option C correct.

Options A and B belong to the Unique Local Address (ULA) space, which uses the prefix FC00::/7. These addresses are intended for private internal IPv6 networks, somewhat similar in purpose to private IPv4 address ranges, but they are not link-local addresses. Option D, which starts with 2001::, is a global unicast address, used for routable communication across IPv6 networks. HCIA-Datacom teaches that link-local addresses are essential in IPv6 because they are used for functions such as neighbor discovery, router discovery, and routing protocol communication on the local segment. Even when a device has global unicast addresses, the link-local address still plays an important role in normal IPv6 operation and protocol adjacency establishment.

Question 7

Question Type: MultipleChoice

When a Huawei network device functions as an FTP server, which of the following are possible causes of an FTP client failing to log in to the FTP server? (Select all that apply)

Options:

A- The FTP server function is not enabled on the device.
B- The authorized directory is not specified for FTP users.
C- The FTP user name and password are not configured.
D- The network between the device and the FTP client is unreachable.

Answer:

A, B, C, D

Explanation:

All four options are possible causes of FTP login failure, so the correct answer is A, B, C, and D.

Option A is correct because if the FTP server function is not enabled on the Huawei device, the device cannot provide FTP services and the client cannot log in. Option B is also correct because if the authorized directory is not specified for the FTP user, the user may not be able to complete login or access file services properly, depending on the FTP user configuration requirements. Option C is correct because an FTP user account must be configured with the required username and password; otherwise, authentication cannot succeed. Option D is also correct because if the

network between the FTP client and the device is unreachable, the client cannot establish the FTP connection at all.

In HCIA-Datacom troubleshooting, FTP login failure is usually checked from four aspects: service enablement, user configuration, permission or directory authorization, and network connectivity. This question tests standard remote maintenance troubleshooting logic for file transfer services on Huawei network devices.

Question 8

Question Type: MultipleChoice

In a wireless communication system, information is first converted into digital signals for easy circuit calculation and processing by the transmitter through source coding, and then converted into radio waves through channel coding and modulation. Which of the following parameters of a carrier are modified during the modulation process based on signal changes? (Select all that apply)

Options:

A- Frequency
B- Phase
C- Channel
D- Amplitude

Answer:

A, B, D

Explanation:

During modulation, the transmitter maps digital information onto certain physical characteristics of a carrier signal so that the information can be transmitted over the air. The three classic carrier parameters that can be modified are amplitude, frequency, and phase. Therefore, options A, B, and D are correct.

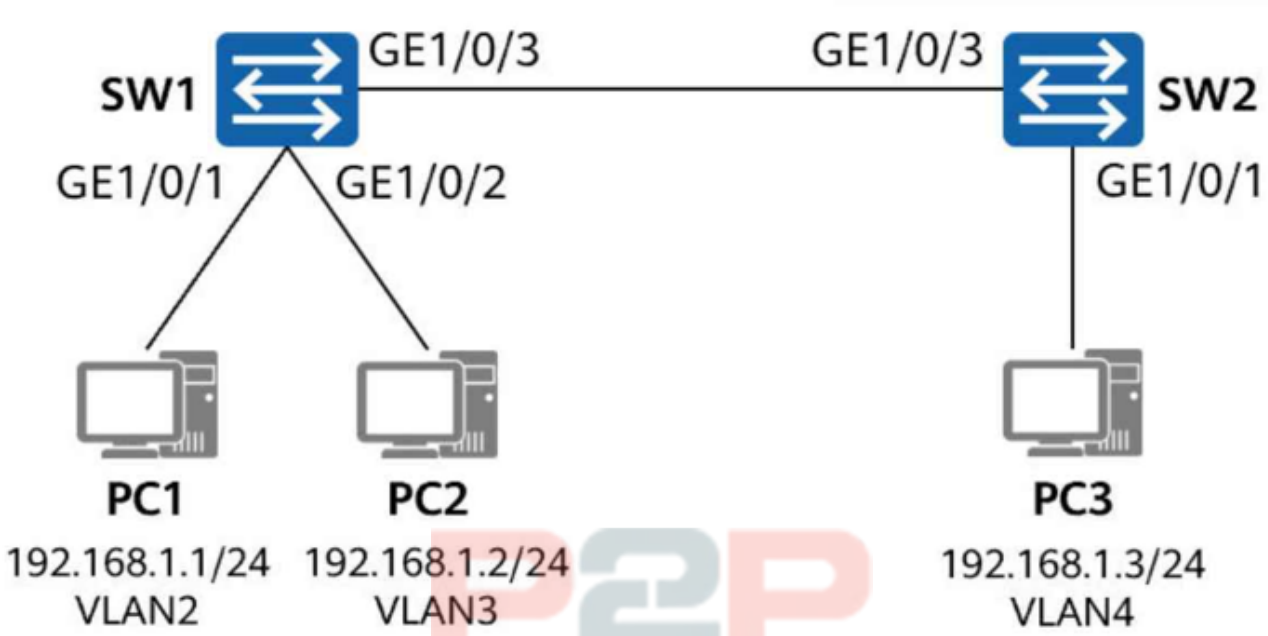
Amplitude modulation changes the strength of the carrier wave. Frequency modulation changes the oscillation rate of the carrier. Phase modulation changes the phase angle of the carrier relative to a reference. Modern wireless communication systems often combine these parameters, especially amplitude and phase, in complex digital modulation schemes such as QPSK, 16-QAM, 64-QAM, or higher-order QAM used in WLAN standards. Option C, channel, is not a

carrier parameter modified during modulation. A channel refers to a frequency resource or spectrum allocation used for communication, not a physical waveform characteristic being directly altered to encode bits. HCIA-Datacom introduces these basic wireless concepts to help learners understand how WLAN signals are transmitted, how data rate improvements are achieved, and why different modulation methods have different requirements for signal quality and interference resistance.

Question 9

Question Type: MultipleChoice

On the network shown in the figure, GE1/0/1 and GE1/0/2 of SW1 are access interfaces, and their PVIDs are VLAN 2 and VLAN 3 respectively. GE1/0/1 of SW2 is also an access interface, and its PVID is VLAN 4. Which of the following configurations on SW1 and SW2 can ensure that data packets sent from PC1 and PC2 can reach PC3?



Options:

A- Configure GE1/0/3 of SW2 as a hybrid interface, add it to VLAN 4 in untagged mode, and retain the default PVID.

B- Configure GE1/0/3 of SW1 as a hybrid interface, add it to VLAN 2 and VLAN 3 in untagged mode, and set its PVID to VLAN 4.

C- Configure GE1/0/3 of SW2 as a trunk interface, configure it to allow packets from VLAN 4 to pass through, and set its PVID to VLAN 4.

D- Configure GE1/0/3 of SW1 as a trunk interface, configure it to allow packets from VLAN 2 and VLAN 3 to pass through, and set its PVID to VLAN 4.

Answer:

B, C

Explanation:

PC1 and PC2 are in different VLANs on SW1, while PC3 is in VLAN 4 on SW2. To allow traffic from VLAN 2 and VLAN 3 users to reach PC3 through the inter-switch link, SW1 must be able to send frames from PC1 and PC2 toward SW2 in a form that SW2 can place into VLAN 4.

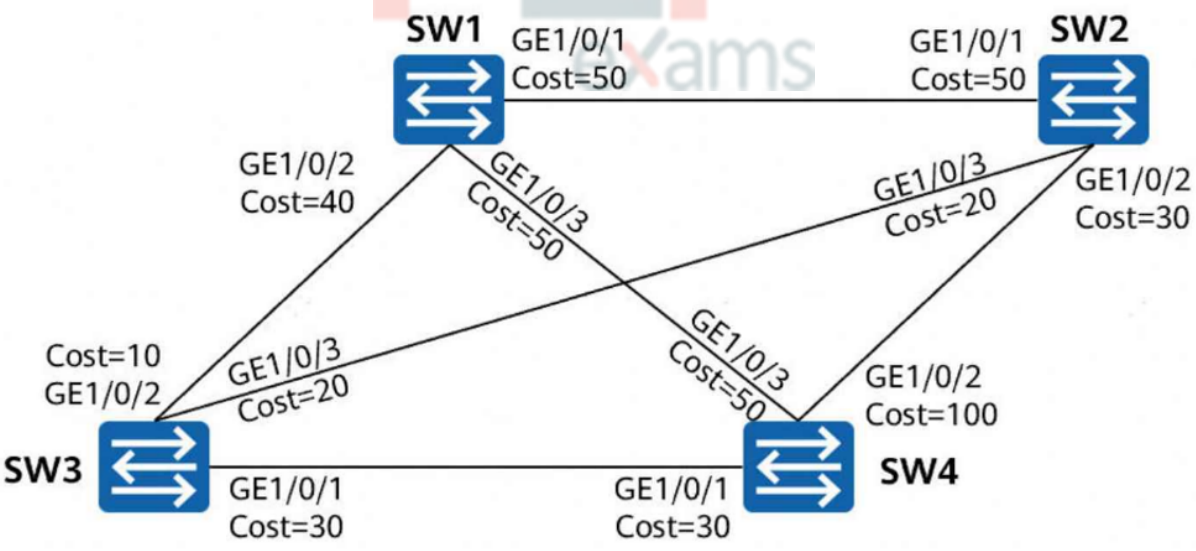
Option B is valid because a hybrid interface on SW1 can send frames from VLAN 2 and VLAN 3 untagged, and setting the PVID to VLAN 4 allows untagged inbound frames on the peer side to be associated appropriately when matched with the SW2 configuration. Option C is also valid because configuring SW2's GE1/0/3 as a trunk allowing VLAN 4 and setting its PVID to VLAN 4 means untagged frames arriving from SW1 are treated as belonging to VLAN 4 and can then be forwarded to PC3 through its access interface.

Option A is incomplete because only configuring SW2 does not solve the VLAN handling on SW1. Option D is incorrect because a trunk on SW1 would send VLAN 2 and VLAN 3 frames tagged, which would not match the VLAN 4-only expectation on SW2 in this scenario.

Question 10

Question Type: MultipleChoice

On the switched network shown in the figure, STP is enabled on all devices. SW1 is the root bridge. The port costs are shown in the figure. Other parameters retain the default values. After the network is stable, which of the following paths is used by SW1 to send traffic to SW4?



Options:

A- SW1 SW2 SW4
B- SW1 SW3 SW4
C- SW1 SW2 SW3 SW4
D- SW1 SW4

Answer:

B

Explanation:

After STP convergence, only ports in the forwarding state participate in active traffic forwarding, while redundant ports may be placed into the blocking or discarding state to eliminate loops. According to the topology and STP role election shown in the question, the valid forwarding path from SW1 to SW4 is SW1 SW3 SW4, so option B is correct.

This means that the direct alternative path or the path through SW2 is not the active spanning-tree forwarding path after election and state transition. STP selects paths based on the root bridge, path cost, bridge ID, and port ID. Once the root bridge and port roles are determined, some links remain active and others are blocked to ensure a loop-free Layer 2 topology. HCIA-Datacom emphasizes that the resulting forwarding topology is a tree, not a mesh, even if the physical topology contains redundant links. Understanding the actual forwarding path after STP convergence is important for troubleshooting connectivity, predicting traffic behavior, and verifying whether bridge priority and path-cost settings have produced the intended design outcome in campus switching networks.

Question 11

Question Type: MultipleChoice

During WLAN deployment, a Fit AP fails to go online on the WAC. You log in to the WAC and run the display ap online-fail-record command to locate the fault. The command output shows that the cause is Insufficient license resources. This means that the license resources on the WAC are insufficient and that you need to expand the license capacity.

Options:

A- TRUE
B- FALSE

Answer:

A

Explanation:

This statement is true. On a Huawei WAC, the number of APs that can go online is controlled by the available license resources. If a Fit AP fails to come online and the command display ap online-fail-record shows Insufficient license resources, it means the controller does not currently have enough licensed capacity to allow additional APs to register successfully.

In this case, the administrator must expand the license capacity or adjust existing license allocation so that the AP can be admitted. This is a common WLAN deployment issue, especially when new APs are added without first verifying the current AP license limit on the WAC. HCIA-Datacom troubleshooting methodology emphasizes interpreting controller diagnostics and fault records accurately. An AP can fail to go online for many reasons, including CAPWAP reachability problems, version mismatch, authentication issues, or licensing limitations. When the failure reason explicitly indicates insufficient license resources, the troubleshooting direction is clear: the controller's AP license capacity must be checked and, if necessary, increased. This question tests the ability to map a specific WAC alarm record to the correct operational response.