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**Exam Code: H12-224**

**Exam Name: HCNP-R&S Fast Track (Huawei Certified Network Professional - Routing & Switching Fast Track)**



## Exam A

### QUESTION 1

What is the recommended minimum delay for HRP preemption on the Eudemon?

- A. 120s
- B. 60s
- C. 10s
- D. 5s

**Correct Answer: B**

**Section:**

### QUESTION 2

MPLS is a switching standard defined by the IETF. Which device adds or deletes labels?

- A. Label distribution router
- B. LER
- C. LSR
- D. Label transmit router

**Correct Answer: B**

**Section:**

### QUESTION 3

Which of the following is the priority value of the DMZ on the Eudemon?

- A. 10
- B. 50
- C. 75
- D. 85

**Correct Answer: B**

**Section:**

### QUESTION 4

Which of the following NAT functions are supported by the Eudemon? (Choose three.)

- A. NAT/PAT
- B. IPv4 to IPv6 NAT
- C. Bidirectional NAT
- D. NAT server

**Correct Answer: A, C, D**



**Section:**

**QUESTION 5**

On the RSTP network with STP devices, which packets does an RSTP switch use to notify the STP switches of the topology change?

- A. RSTP BPDUs with the TC flag
- B. STP BPDUs with the TCN flag
- C. RSTP BPDUs with the TCA flag
- D. STP BPDUs with the TCA flag

**Correct Answer: B**

**Section:**

**QUESTION 6**

If the customer requires high mobility and easy management, the staff of different departments can be added to different VLANs. In addition, these VLANs are located on different IP subnets. Which VLAN allocation mode can meet these requirements?

- A. VLAN allocation based on source IP addresses
- B. VLAN allocation based on destination IP addresses
- C. VLAN allocation based on source IP addresses and source MAC addresses
- D. VLAN allocation based on destination MAC addresses and destination IP addresses

**Correct Answer: A**

**Section:**

**QUESTION 7**

Which statement about the trunk interface is true?

- A. A trunk interface is always connected to hosts.
- B. "multiple" VLAN IDs can be set on a trunk interface. The VLAN IDs can be the same as or different from the PVID.
- C. The trunk interface cannot have a PVID.
- D. If the trunk interface receives a packet with a VLAN not in the allowed VLAN list, the trunk interface broadcast the packet in the VLAN.

**Correct Answer: B**

**Section:**

**QUESTION 8**

In RSTP, the port status can be discarding and learning. Which statements about the port status are true? (Choose two.)

- A. The port in discarding or learning state does not forward data frames.
- B. The port in discarding state does not learn MAC addresses.
- C. The port in learning state does not learn MAC addresses.
- D. All of the above

**Correct Answer: A, B**

**Section:**



**QUESTION 9**

Which statements about VLAN aggregation are true? (Choose three.)

- A. "multiple" VLANs (broadcast domains) are on the same physical network; therefore, different VLANs belong to the same subnet.
- B. VLAN aggregation can save IP addresses.
- C. Only the super VLAN requires an IP address, but sub-VLANs do not need.
- D. The VLAN that is used to separate broadcast domains is called super VLAN.

**Correct Answer: A, B, C**

**Section:**

**QUESTION 10**

Which statements are true? (Choose three.)

- A. The routing ARP proxy allows the hosts on different physical networks of the same network segment to communicate with each other.
- B. The intra-VLAN ARP proxy allows isolated users on a VLAN to communicate with each other.
- C. The inter-VLAN ARP proxy allows hosts on different VLANs to communicate with each other through Layer 3.
- D. The inter-VLAN ARP proxy function can't be enabled on the VLANIF interface of the super VLAN to implement communication between sub-VLANs.

**Correct Answer: A, B, C**

**Section:**

**QUESTION 11**

Which statement is true?

- A. The principal VLAN must be configured before subordinate VLANs.
- B. The MUX VLAN function takes effect without being enabled on an interface.
- C. In MUX VLAN, a VLAN can function as both principal VLAN and subordinate VLAN.
- D. The MUX VLAN can contain only one subordinate separate VLAN.

**Correct Answer: A**

**Section:**

**QUESTION 12**

A switching network has been enabled with STP protocol. To provide fast access speed to the file server for most of the users, the switch that is directly connected with file server is configured as the root bridge.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 13**

The STP protocol cannot prevent MAC address table flapping caused by loops on the Layer 2 network.

- A. True
- B. False



**Correct Answer: B**

**Section:**

**QUESTION 14**

Which of the following statements about STP is not true?

- A. STP can manage redundant links.
- B. STP can block redundant links to eliminate loops
- C. STP can prevent temporary loss of connectivity
- D. STP can make LAN switch operate normally in a network with loops

**Correct Answer: C**

**Section:**

**QUESTION 15**

RSTP defines different ports compared with STP. Which of the following ports cannot work in forwarding state? (Choose all that apply.)

- A. Root Port
- B. Designated Port
- C. Backup Port
- D. Alternate Port

**Correct Answer: C, D**

**Section:**

**QUESTION 16**

After an STP switch starts, it considers itself as the root switch. Which statements about BPDU parameter setting are true? (Choose three.)

- A. The switch is the designated root.
- B. The designated cost is 0.
- C. The switch is the designated bridge.
- D. The designated port is 0.

**Correct Answer: A, B, C**

**Section:**

**QUESTION 17**

Which statement about the following configuration is true?

```
port link-type hybrid port hybrid pvidvlan 2 port hybrid untagged vlan 2 port hybrid tagged vlan 3
```

- A. The default VLAN of the interface is VLAN 2.
- B. The port hybrid tagged vlan 3 command configures the VLAN for a hybrid interface. Frames in the VLAN then pass through the hybrid interface in untagged mode.
- C. The port hybrid untagged vlan 2 command configures the VLAN for a hybrid interface. Frames in the VLAN then pass through the hybrid interface in tagged mode.
- D. All of the above.

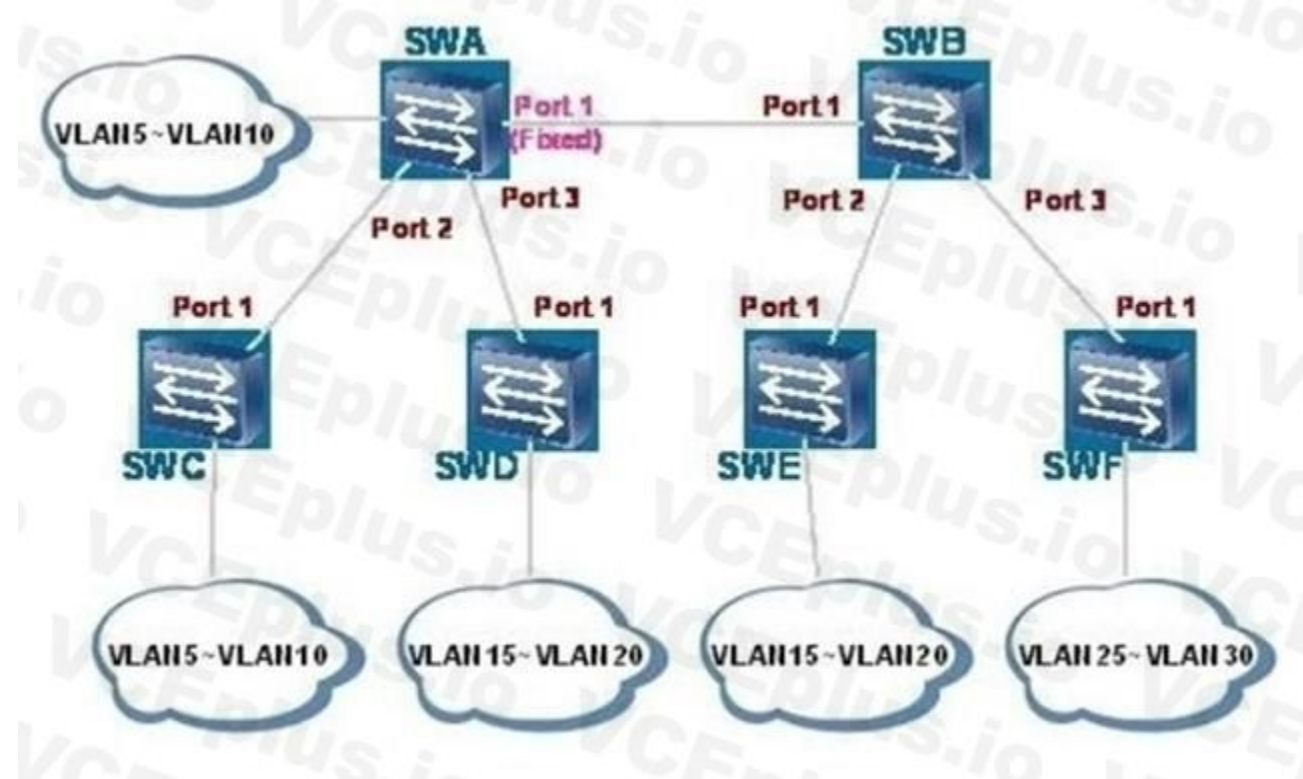
**Correct Answer: A**

**Section:**



**QUESTION 18**

What are the same fields in RSTP BPDUs and STP BPDUs? (Choose two.)



- A. TCN
- B. TC
- C. TCA
- D. All of the above

**Correct Answer: B, C**

**Section:**

**QUESTION 19**

If 802.1x authentication is enabled on an interface, MAC address authentication (enabled by the mac-authen enable command) and direct authentication (enabled by the direct-authen enable command) cannot be enabled on the interface.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 20**

Which of the following standards defines STP?

- A. 802.1J
- B. 802.1X
- C. 802.1D
- D. 802.1P



**Correct Answer: C**

**Section:**

**QUESTION 21**

Which statements about the PVID on the access interface are true?

- A. When receiving a packet without the VLAN tag, the interface adds the VLAN tag to the packet and sets the VID in the tag to the default VLAN ID.
- B. When receiving a packet with a VLAN tag, the interface compares the VLAN ID in the tag with the default VLAN ID. If they are the same, the interface forwards the packets; otherwise, the interface discards the packets.
- C. When the interface sends a packet with a VLAN tag that contains the default VLAN ID, the system removes the VLAN tag of the packet, and then forwards the packet.
- D. None of the above.

**Correct Answer: A, B, C**

**Section:**

**QUESTION 22**

Which statement about ARP proxy is false?

- A. The ARP proxy, namely, the gateway, sends ARP request for the host. The MAC address in the ARP request packet is the MAC address of the host.
- B. The ARP proxy, namely, the gateway, sends ARP request for the host. The MAC address in the ARP request packet is the MAC address of its own interface.
- C. ARP proxy is also called promiscuous ARP or ARP hack.
- D. The ARP proxy allows the hosts on the networks with the same network ID to communicate with each other.

**Correct Answer: A**

**Section:**



**QUESTION 23**

In RSTP network environment, a port can be set as edge port when it is directly connected with terminal.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 24**

Which of the following statements about STP Designated Port is true?

- A. Each of the bridge can have one Designated Port only.
- B. Designated Port is responsible for forwarding packets to its connected network segments.
- C. The only path leading to the Root Bridge is through Designated Port.
- D. Designated Port forwards the data packet from its corresponding switch to the Root Switch.

**Correct Answer: B**

**Section:**

**QUESTION 25**

The following is the command output on a root switch of an MSTP region. How many switches are located in the MSTP region?

- A. Less than 10
- B. Less than 20
- C. Less than 30
- D. Less than 40

**Correct Answer: C**

**Section:**

**QUESTION 26**

If an MSTP switch detects that the neighboring switch works in RSTP mode, which mode does the MSTP switch work?

- A. STP mode
- B. RSTP mode
- C. MSTP mode
- D. All of the above

**Correct Answer: B**

**Section:**

**QUESTION 27**

When the GVRP registration mode is FIXED, which statement is true?

- A. VLANs can be manually created and registered on the interface, and can also be dynamically registered and deregistered on the interface.
- B. VLANs cannot be manually created and registered on the interface, but can be dynamically registered and deregistered on the interface.
- C. VLANs can be manually created and registered on the interface, but cannot be dynamically registered or deregistered on the interface.
- D. VLANs cannot be manually created and registered on the interface, and cannot be dynamically registered or deregistered on the interface.

**Correct Answer: C**

**Section:**

**QUESTION 28**

In a switching network that has been enabled with STP protocol, the priorities of all the switches are the same. The MAC address of switch1 is 00-e0-fc-00-00-40, MAC address of switch2 is 00-e0-fc-00-00-10, MAC address of switch3 is 00e0-fc-00-00-20, and MAC address of switch4 is 00-e0-fc-00-00-80. Which of the switches will be elected as the Root Bridge?

- A. Switch1
- B. Switch2
- C. Switch3
- D. Switch4

**Correct Answer: B**

**Section:**

**QUESTION 29**

Which statements are false?

- A. The VLAN mapping function is usually configured on the edge node of a public network.



- B. The VLAN mapping function can save VLAN resources on a public network.
- C. VLAN mapping allows private networks on different VLANs to communicate with each other over the ISP network.
- D. VLAN mapping allows only the private networks on the same VLAN to communicate with each other.

**Correct Answer: D**

**Section:**

**QUESTION 30**

After detecting a user with a new MAC address, the switch initiates an EAP authentication request. If the client does not respond and the MAC address bypass authentication is not configured, which statement is false?

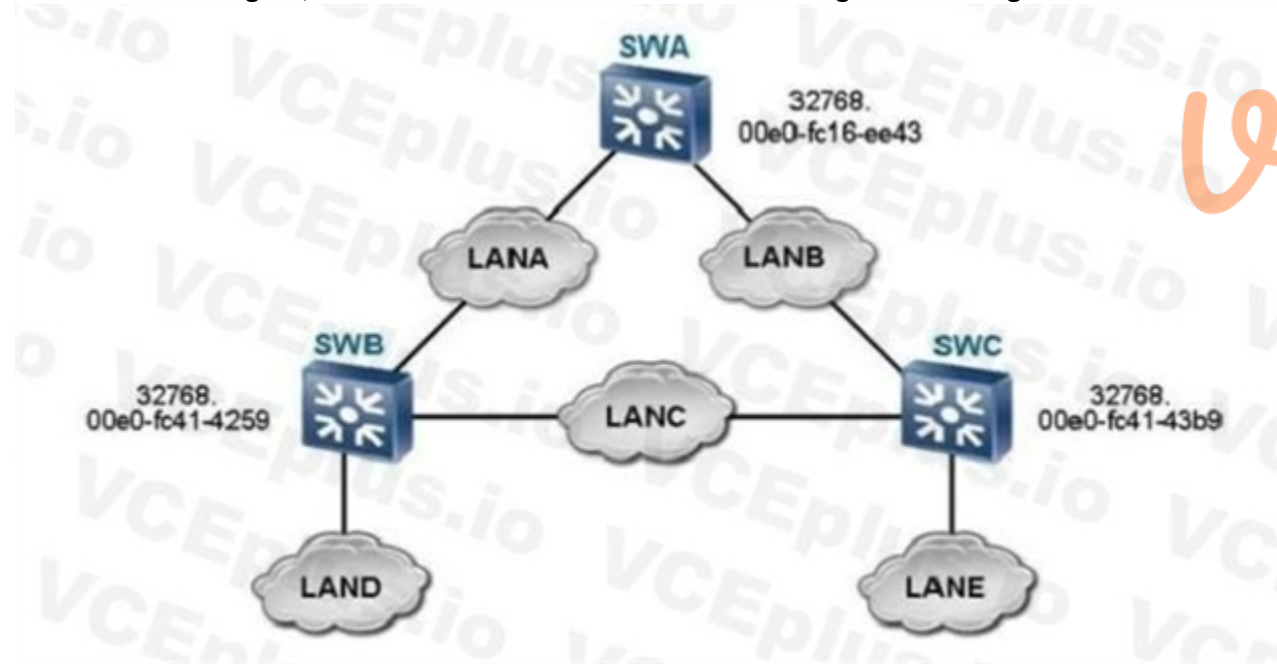
- A. If the client does not respond after the number of authentication requests reaches a specified value, the switch considers that the client software is not installed.
- B. All permissions of the user are prohibited.
- C. The user is allowed to access only the isolated zone.
- D. Detection is initiated again after a period of time.

**Correct Answer: B**

**Section:**

**QUESTION 31**

As shown in the figure, which switch is the root switch according to the configuration?



- A. SWA
- B. SWB
- C. SWC
- D. None of the above

**Correct Answer: A**

**Section:**

**QUESTION 32**

The STP protocol can prevent broadcast storms caused by loops on the Layer 2 network.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 33**

According to the figure, what is the status of Ethernet1/0/13 in MSTI 1?

```
[SWC]display stp brief
MSTID    Port          Role    STP State  Protection
0        Ethernet1/0/2  DESI    FORWARDING NONE
0        Ethernet1/0/3  DESI    FORWARDING NONE
0        Ethernet1/0/12 ALTE    DISCARDING NONE
0        Ethernet1/0/13 ROOT    FORWARDING NONE
1        Ethernet1/0/2  DESI    FORWARDING NONE
1        Ethernet1/0/12 ROOT    FORWARDING NONE
1        Ethernet1/0/13 ALTE    DISCARDING NONE
2        Ethernet1/0/3  DESI    FORWARDING NONE
2        Ethernet1/0/12 ALTE    DISCARDING NONE
2        Ethernet1/0/13 ROOT    FORWARDING NONE
```

- A. Forwarding
- B. Discarding
- C. Learning
- D. None of the above

**Correct Answer: B**

**Section:**

**QUESTION 34**

Which types of interfaces can be configured with selective QinQ? (Choose two.)

- A. Access interface
- B. Trunk interface
- C. Hybrid interface
- D. dot1q-tunnel interface

**Correct Answer: B, C**

**Section:**

**QUESTION 35**

Which of the following statements about the link failure detection in STP protocol is not true?

- A. When network topology is stable, the Designated Port sends BPDU packet at every Hello Time interval.
- B. When network topology is stable, BPDU packets will be transmitted periodically.



- C. When the port does not receive new BPDU within a certain interval, the old configuration BPDU will time out and the link failure can be detected.
- D. The port sends Configuration BPDU at every Hello Time interval. When the link fails, Configuration BPDU cannot be sent out. As a result, this port can detect the link failure.

**Correct Answer: D**

**Section:**

**QUESTION 36**

Which statement about the hybrid interface is true?

- A. A hybrid interface can only be connected to network device.
- B. A hybrid interface can only be connected to host.
- C. A hybrid interface can be connected to host or network device.
- D. A hybrid interface cannot be configured with VLAN ID.

**Correct Answer: C**

**Section:**

**QUESTION 37**

Which statements are true? (Choose three.)

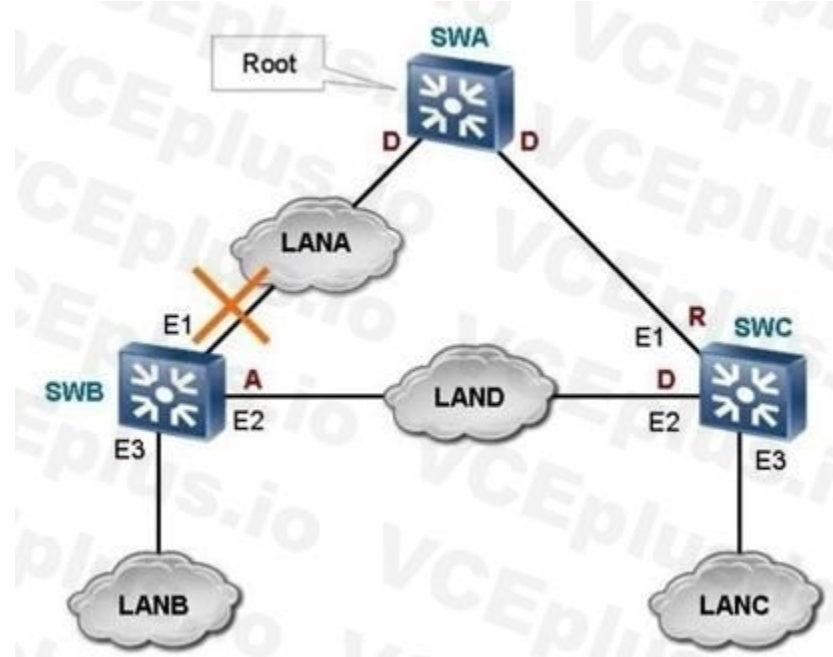
- A. Port isolation is a mechanism that controls the access between switch interfaces.
- B. Port isolation is an isolation mechanism at the physical layer.
- C. Port isolation prevents the computers connected to different ports from accessing each other.
- D. Port isolation can be configured based on VLANs.

**Correct Answer: A, B, C**

**Section:**

**QUESTION 38**

On the RSTP network as shown in the figure, what RSTP operations will occur after the E1 port of SWB fails? (Choose three.)



- A. SWB deletes the MAC address entries with the E1 port as the destination interface.
- B. The spanning tree is recalculated and the E2 port is elected as the new root port.
- C. All the interfaces in forwarding state send topology change notifications (TCNs) to notify other switches of the topology change.
- D. All the non-edge ports in forwarding state send TCNs to notify other switches of the topology change.

**Correct Answer: A, B, D**

**Section:**

#### QUESTION 39

According to the MSTP protocol, each MST instance calculates an independent spanning tree by using the RSTP algorithm.

- A. True
- B. False

**Correct Answer: A**

**Section:**

#### QUESTION 40

When the GVRP registration mode is FORBIDDEN, no VLAN can be created or registered on the interface. In addition, which VLANs are deregistered on the interface?

- A. All VLANs except VLAN 1
- B. All VLANs except VLAN 4095
- C. All VLANs
- D. All VLANs except the VLAN specified by the user

**Correct Answer: A**

**Section:**

#### QUESTION 41

Which statement about the VLAN on a Layer 2 switch is true?

- A. The CFI in the VLAN tag specifies whether the priority in the VLAN tag is valid.
- B. The VLAN tag is located in the Layer 2 header of a packet.
- C. The CFI in the VLAN tag contains two bits.
- D. A VLAN on the switch is a broadcast domain. The broadcast domains are separated.

**Correct Answer: A**

**Section:**

#### QUESTION 42

Which statement about VLAN mapping is false?

- A. VLAN mapping is also called VLAN translation.
- B. VLAN mapping can implement translation between C-VLAN IDs and S-VLAN IDs.
- C. VLAN mapping can be configured.
- D. VLAN mapping means that a VLAN tag is added to packets.



**Correct Answer: D**

**Section:**

**QUESTION 43**

Which are the port roles defined in STP?

- A. Root Port
- B. Designated Port
- C. Alternate Port
- D. All of the above

**Correct Answer: D**

**Section:**

**QUESTION 44**

QinQ provides a simplified Layer 2 VPN tunnel.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 45**

Which VLAN assignment methods are supported by the Huawei S9300? (Choose three.)

- A. Assigning VLANs based on Layer 7 protocols
- B. Assigning VLANs based on protocols
- C. Assigning VLANs based on IP subnets
- D. Assigning VLANs based on MAC addresses

**Correct Answer: B, C, D**

**Section:**

**QUESTION 46**

Which statement about MUX VLAN is false?

- A. Principal VLAN
- B. Subordinate VLAN
- C. Subordinate group VLAN
- D. Guest VLAN

**Correct Answer: D**

**Section:**

**QUESTION 47**

Which is contained in the GVRP VLAN deregistration message?



- A. Specified VLAN ID
- B. Specified IP address
- C. Specified MAC address
- D. Known port number

**Correct Answer: C**

**Section:**

**QUESTION 48**

Which statements are true? (Choose three.)

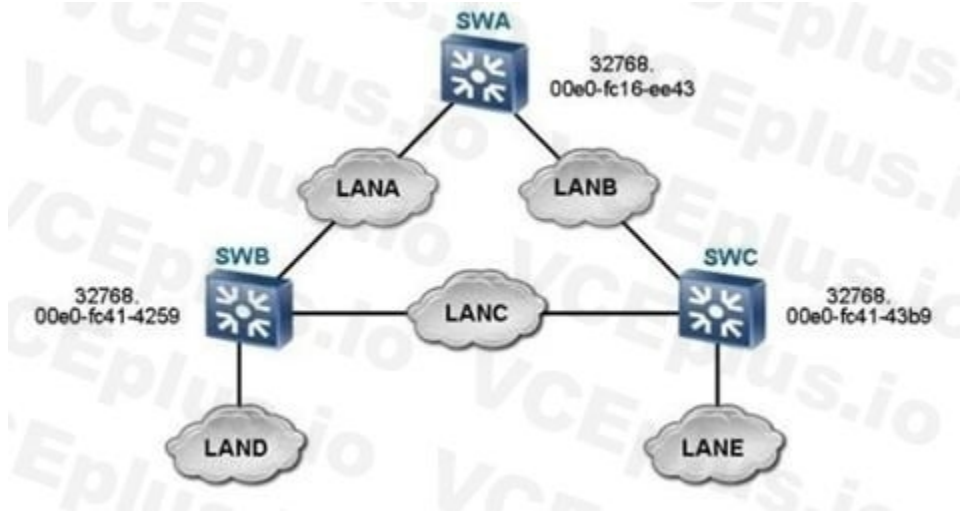
- A. The sub-VLANs are configured in the super VLAN view.
- B. VLANs 1 to 4094 can be configured as a super VLAN.
- C. The aggregate-vlan command is used to configure the super VLAN.
- D. A VLAN to be configured as a super VLAN cannot contain any interface.

**Correct Answer: A, C, D**

**Section:**

**QUESTION 49**

On the STP network as shown in the figure, which device may be the blocked port belong to?



- A. SWA
- B. SWB
- C. SWC
- D. None of the above

**Correct Answer: C**

**Section:**

**QUESTION 50**

Which statements about the VLAN on S series switches are true? (Choose two.)

- A. The VLAN IDs on the switch range from 1 to 4090.

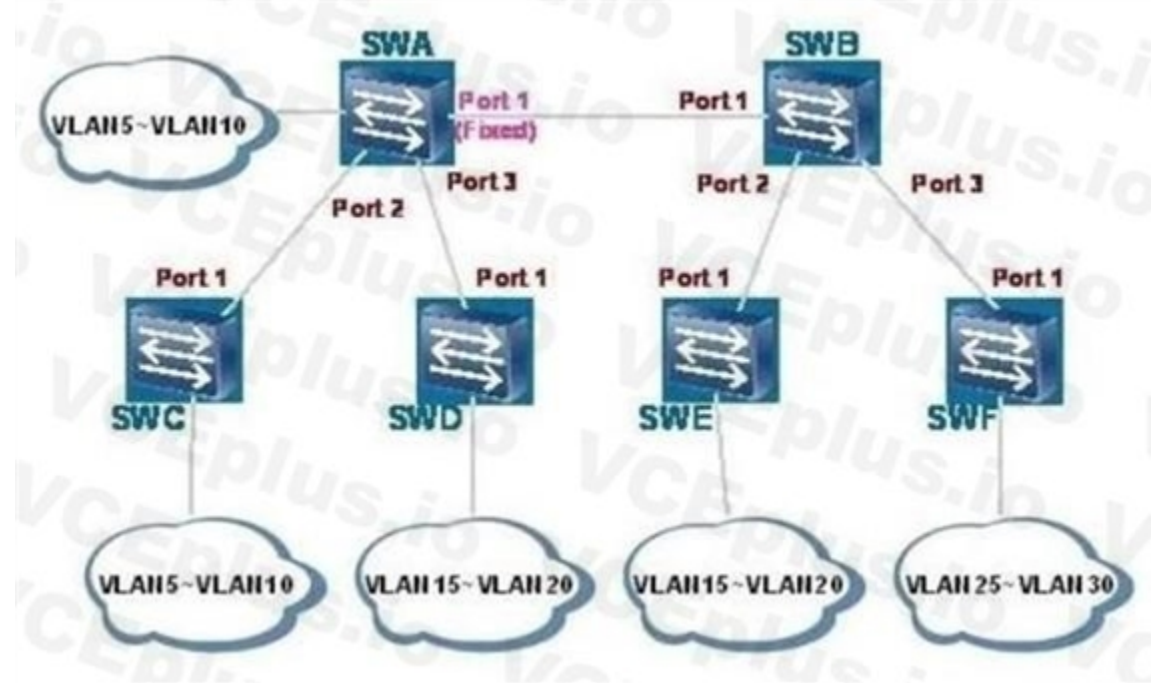
- B. The switch has a default VLAN.
- C. The priority value in the VLAN tag can be changed on the switch.
- D. A VLAN tag contains one byte.

**Correct Answer: B, C**

**Section:**

**QUESTION 51**

As shown in the figure, port 1 of switch A is configured with the Fixed mode, and other ports are configured with the Normal mode. The trunk interfaces allow all VLANs. Which VLANs are registered on port 1 of switch C? (Choose three.)



- A. VLAN 1
- B. VLAN 5 to VLAN 10
- C. VLAN 15 to VLAN 20
- D. VLAN 25 to VLAN 30

**Correct Answer: A, B, C**

**Section:**

**QUESTION 52**

In STP configuration, which statement about BPDUs is true?

- A. BPDUs cannot be sent from the designated port.
- B. BPDUs can be sent only from the designated port.
- C. BPDUs can be sent from any port.
- D. None of the above.

**Correct Answer: B**

**Section:**

**QUESTION 53**



Which statements about the relationship between GVRP and GARP are true? (Choose two.)

- A. GVRP, GARP, and GMRP are the standards of the same type.
- B. GVRP and GARP are defined by IEEE 802.1p.
- C. GVRP is based on GARP, and is an application of GARP.
- D. GVRP is a new definition of GARP.

**Correct Answer: B, C**

**Section:**

**QUESTION 54**

On an RSTP network, when an edge port is in protected state, what operation is performed after the edge port receives BPDUs?

- A. The edge port forwards BPDUs.
- B. The edge port discards BPDUs.
- C. The edge port is shut down.
- D. The edge port obtains required information from BPDUs.

**Correct Answer: C**

**Section:**

**QUESTION 55**

The dot1x authentication-method command is used to set the 802.1x authentication mode. Which is the most secure authentication mode?

- A. PAP
- B. EAP
- C. CHAP
- D. EAP-TTLS

**Correct Answer: C**

**Section:**

**QUESTION 56**

When the topology of a network running RSTP changes, what happens after the change?

- A. Flooding on the entire network.
- B. The aging time of MAC address entries is changed.
- C. Some MAC address entries are deleted.
- D. All of the above

**Correct Answer: C**

**Section:**

**QUESTION 57**

The port isolation function can isolate the ports on the same switch.

- A. True





B. False

**Correct Answer: A**

**Section:**

**QUESTION 58**

Which statement about VLAN mapping is true?

- A. The interface configured with VLAN mapping must be a hybrid interface.
- B. The same VLANs on different interfaces cannot be mapped to different VLANs.
- C. Different VLANs on the same interface can be mapped to the same VLAN.
- D. Any types of interfaces can be configured with VLAN mapping.

**Correct Answer: C**

**Section:**

**QUESTION 59**

Which problems on a single spanning tree network can be solved by MSTP? (Choose three.)

- A. Traffic forwarding paths in some VLANs are faulty.
- B. Traffic cannot be load balanced.
- C. The second best path problem may occur.
- D. The network reliability cannot be improved.

**Correct Answer: A, B, C**

**Section:**

**QUESTION 60**

Which of the following statements about STP Designated Port is true?

- A. Each of the bridge can have one Designated Port only.
- B. Designated Port is responsible for forwarding packets to its connected network segments.
- C. The only path leading to the Root Bridge is through Designated Port.
- D. Designated Port forwards the data packet from its corresponding switch to the Root Switch.

**Correct Answer: B**

**Section:**

**QUESTION 61**

When configuring VLAN mapping, you must set the priority of outer VLAN ID.

- A. True
- B. False

**Correct Answer: B**

**Section:**



**QUESTION 62**

Which are the two parts in the port identifier of the uplink interface on a non-root switch?

- A. 1-bit port priority and 1-bit port number
- B. 1-bit port priority and 2-bit port number
- C. 2-bit port priority and 1-bit port number
- D. 2-bit port priority and 2-bit port number

**Correct Answer: A**

**Section:**

**QUESTION 63**

Before configuring 802.1x services, you need to determine the configuration roadmap and prepare data. Which are general steps in the configuration roadmap? (Choose three.)

- A. Configure a Tftp server.
- B. Configure an AAA authentication template.
- C. Configure a domain.
- D. Configure 802.1x authentication.

**Correct Answer: B, C, D**

**Section:**

**QUESTION 64**

Which statement is false?

- A. The switch supports 1:1 VLAN mapping.
- B. The switch does not support N:1 VLAN mapping on an interface.
- C. The switch can perform VLAN mapping for double-tagged packets.
- D. The switch can map the outer VLAN ID of packets to another VLAN ID.

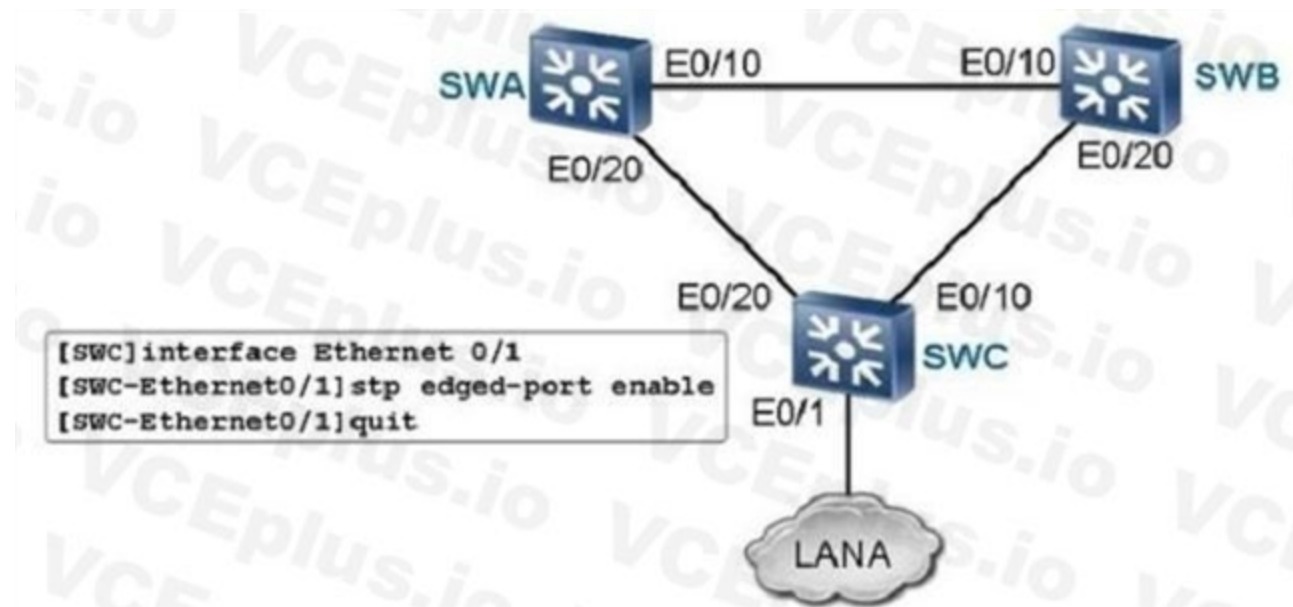
**Correct Answer: B**

**Section:**

**QUESTION 65**

On the RSTP network as shown in the figure, what is the port role of SWC E0/1 according to the configuration? (Choose two.)





- A. Designated port
- B. Root port
- C. Alternate port
- D. Edge port

**Correct Answer: A, D**

**Section:**

**QUESTION 66**

GARP involves various messages. Besides JoinIn message and Leave message, which are also the GARP messages? (Choose three.)

- A. Notice
- B. Empty
- C. JoinEmpty
- D. LeaveAll

**Correct Answer: B, C, D**

**Section:**

**QUESTION 67**

On an STP network, before the interface status transits from non-forwarding to forwarding, how many Forward Delay intervals does the interface wait for?

- A. 2
- B. 3
- C. 4
- D. 5

**Correct Answer: A**

**Section:**

**QUESTION 68**



The dot1x command is used to enable 802.1x authentication globally or on an interface. Which statements about the undo dot1x command are true? (Choose three.)

- A. It is used to disable 802.1x authentication globally.
- B. It will disconnect online users from the interface; therefore, use the command with caution.
- C. It is used to disable 802.1x authentication on an interface.
- D. Ensure that there are no online users before you run the undo dot1x command. Otherwise, running the undo dot1x command fails.

**Correct Answer: A, C, D**

**Section:**

**QUESTION 69**

Which is the port state defined in RSTP?

- A. Discarding
- B. Learning
- C. Forwarding
- D. All of the above

**Correct Answer: D**

**Section:**

**QUESTION 70**

By which can an IP-based advanced ACL filter packets? (Choose five.)

- A. Source IP address and its subnet mask
- B. Destination IP address and its subnet mask
- C. Protocol type
- D. TCP or UDP port number
- E. Priority of the data packet
- F. Length of the data packet

**Correct Answer: A, B, C, D, E**

**Section:**

**QUESTION 71**

IP unnumbered is to borrow an IP address from an interface. If an interface has multiple IP addresses, all its IP addresses will be borrowed and the primary address will continue after these IP addresses are borrowed.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 72**

When two Eudemons are working in dual-system hot backup mode, their session tables are backed up in real time.

- A. True



B. False

**Correct Answer: A**

**Section:**

**QUESTION 73**

Which of the following statements about the firewall technology are true? (Choose three.)

- A. The network gateway of the application layer checks application-layer data carried in packets passing through the gateway.
- B. The network gateway for session status detection checks session information carried in packets only at the session layer.
- C. During packet filtering, the session status is checked and the whole data stream is analyzed.
- D. Address proxy replaces IP addresses and port numbers of hosts within the network with the IP address and port number of the proxy device or router.

**Correct Answer: A, B, D**

**Section:**

**QUESTION 74**

The Eudemon can control traffic and connections based on IP addresses.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 75**

In the scenario where packets are sent and received along different paths, which of the following functions needs to be disabled on the firewall?

- A. Status detection
- B. Attack defense
- C. Packet filtering
- D. Status backup

**Correct Answer: A**

**Section:**

**QUESTION 76**

The variation in packet delay is called jitter.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 77**

Which of the following firewalls is the most popular?



- A. Packet filtering firewall
- B. Stateful firewall
- C. Proxy firewall
- D. Anti-virus firewall

**Correct Answer: B**

**Section:**

**QUESTION 78**

The multi-channel protocol is used to establish at least two channels (sessions) for communications or services.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 79**

Which messages are sent from the client to the server? (Choose three.)

- A. DHCP NAK
- B. DHCP REQUEST
- C. DHCP DISCOVER
- D. DHCP RELEASE

**Correct Answer: B, C, D**

**Section:**

**QUESTION 80**

In DiffServ mode, before the application program sends packets, it needs to confirm that the network has reserved resources for packet transmission.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 81**

The Eudemon generates a blacklist upon detecting an attack.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 82**

Which encapsulation mode is used for the MPLS protocol on an Ethernet network?



- A. Packet mode
- B. Frame mode
- C. Transport mode
- D. Channel mode
- E. Pipe mode

**Correct Answer: B**

**Section:**

**QUESTION 83**

Which of the following DDoS attacks can the Eudemon 1000E defend against? (Choose three.)

- A. SYN flood
- B. UDP flood
- C. ICMP flood
- D. SQL flood

**Correct Answer: A, B, C**

**Section:**

**QUESTION 84**

Which of the following attacks are DDoS attacks? (Choose four.)

- A. SYN flood
- B. SYN/ACK flood
- C. UDP flood
- D. FTP attack
- E. HTTP get flood

**Correct Answer: A, B, C, E**

**Section:**

**QUESTION 85**

Which of the following statements about NAT are true? (Choose three.)

- A. NAT is short for "network address translation".
- B. NAT, also called address proxy, is used for translation between private and public network addresses.
- C. Hosts within the intranet can access the extranet without using NAT.
- D. NAT can effectively resolve the problem of IP address shortage.

**Correct Answer: A, B, D**

**Section:**

**QUESTION 86**

In which of the following modes can the Eudemon be working? (Choose three.)



- A. Routing mode
- B. Transparent mode
- C. Composite mode
- D. Transfer mode

**Correct Answer: A, B, C**

**Section:**

**QUESTION 87**

The end-to-end delay is the sum of transmission delays, processing delays, and queuing delays along the packet forwarding path.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 88**

An address needs to be allocated to a host connected to the network temporarily or a group of IP addresses need to be allocated to the hosts that do not require permanent IP addresses. Which address allocation mode does the DHCP server use?

- A. Automatic allocation
- B. Dynamic allocation
- C. Manual allocation
- D. All of the above

**Correct Answer: B**

**Section:**

**QUESTION 89**

The urgent pointer in the flag field of an IPv4 packet header is generally used for OOB data transmission.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 90**

Which fields does the DHCP binding table contain? (Choose three.)

- A. MAC address
- B. route table
- C. IP address lease time
- D. Interface and VLAN

**Correct Answer: A, C, D**





**Section:**

**QUESTION 91**

QoS in best-effort service mode uses which of the following queue scheduling technology?

- A. FIFO
- B. WFQ
- C. PQ
- D. RR

**Correct Answer: A**

**Section:**

**QUESTION 92**

Security policies for the firewall are applied to interzones but not to interfaces.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 93**

Which of the following technologies does the Eudemon use to defense against Anti-DDoS attacks? (Choose five.)

- A. TCP agent
- B. Source authentication and detection
- C. Crc check
- D. Fingerprint identification (characteristics detection)
- E. Abnormal session detection
- F. Traffic control

**Correct Answer: A, B, D, E, F**

**Section:**

**QUESTION 94**

Status detection is an advanced communication filtering mechanism. It checks the application layer protocol and monitors the status of the connection-based application layer protocol. For all connections, the status information about each connection is maintained by ASPF and is used to dynamically determine whether to permit or deny data packets to firewalls.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 95**

Network address translation (NAT) translates only IP address information.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 96**

Which of the following attacks are prevented after an IP address and MAC address are bound on the Eudemon? (Choose two.)

- A. IP address spoofing
- B. MAC address spoofing
- C. DoS attack
- D. DDoS attack

**Correct Answer: A, B**

**Section:**

**QUESTION 97**

Different virtual firewall instances on an Eudemon must be configured with the same security policy.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 98**

What are the types of DDoS attacks? (Choose three.)

- A. Attacks by special packets
- B. Scanning attack
- C. Sniff attack
- D. Application-layer attack

**Correct Answer: A, B, D**

**Section:**

**QUESTION 99**

What is the function of the client IP address field in DHCP messages?

- A. It is used by the client in bound, renew, or rebinding state to respond to ARP request packets.
- B. It specifies the IP address allocated by the DHCP server to a client.
- C. It specifies the next server address used in the BootStrap and is contained in DHCP Offer or DHCP ACK messages.
- D. It specifies the DHCP relay address.

**Correct Answer: A**



**Section:**

**QUESTION 100**

How many default zones does the Eudemon supporting multi-instance have?

- A. Two
- B. Three
- C. Four
- D. Five

**Correct Answer: D**

**Section:**

**QUESTION 101**

The Eudemon that is working in transparent mode detects processes data at Layer 2. Its interfaces are not configured with IP addresses.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 102**

The firewall can be working in routing mode, transparent mode, or composite mode. The default mode is the composite mode.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 103**

Which encapsulation mode is used for DHCP messages?

- A. TCP encapsulation
- B. RTP encapsulation
- C. UDP encapsulation
- D. PPP encapsulation

**Correct Answer: C**

**Section:**

**QUESTION 104**

The blacklist function on the firewall can filter packets based on destination IP addresses. A destination IP address can be dynamically added to or deleted from the blacklist.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 105**

What about all outgoing labels in the label forwarding table of a device for the same route with the same next hop?

- A. They must be different.
- B. They must be the same.
- C. They may be the same.

**Correct Answer: B**

**Section:**

**QUESTION 106**

Which of the following high availability (HA) features are supported by the Eudemon 1000E? (Choose two.)

- A. Dual-system hot backup
- B. Multi-system hot backup
- C. Dual-system load balancing
- D. Multi-system load balancing

**Correct Answer: A, C**

**Section:**

**QUESTION 107**

Two Eudemons in dual-system hot backup mode use Huawei Redundancy Protocol (HRP) to back up key information (such as configuration commands and session status) between the active and standby devices.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 108**

MPLS is a switching standard defined by the IETF. Which devices exist on the MPLS network? (Choose two.)

- A. LSR
- B. LER
- C. Label distribution router
- D. Label transmit router

**Correct Answer: A, B**

**Section:**

**QUESTION 109**

The Per-Hop Behavior (PHB) defines the policy and priority applied to a packet when traversing a hop (such as a DS) in a DiffServ network.



- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 110**

Which of the following data traffic is incoming data traffic on the Eudemon? (Choose two.)

- A. Data traffic from a Trust zone to a demilitarized zone (DMZ)
- B. Data traffic from an Untrust zone to a DMZ
- C. Data traffic from a Local zone to a Trust zone
- D. Data traffic from an Untrust zone to a Local zone

**Correct Answer: B, D**

**Section:**

**QUESTION 111**

The Eudemon supports load balancing between multiple uplinks.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 112**

The Eudemon does not support port mapping.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 113**

Which of the following are performance parameters of the firewall? (Choose three.)

- A. Throughput
- B. Maximum number of interface
- C. Number of new connections per second
- D. Process delay

**Correct Answer: A, C, D**

**Section:**

**QUESTION 114**

Which of the following solutions effectively defend against ARP attacks? (Choose three.)



- A. Binding a MAC address and an IP address
- B. Enabling the ARP attack protection function on a Huawei switching device
- C. Adding network segments to different VLANs on a switch
- D. Enabling IP packet filtering

**Correct Answer: A, B, C**

**Section:**

**QUESTION 115**

A firewall filters packets exchanged between zones but does not filter packets exchanged between interfaces in the same zone.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 116**

What is the function of DHCP Offer messages?

- A. DHCP Offer messages are broadcast by the client to detect the available server.
- B. DHCP Offer messages are sent by the server to respond to the DHCP Discover messages sent by the client. Certain configuration parameters are specified in the Offer messages.
- C. DHCP Offer messages are sent by the client to apply to the server for configuration parameters, configuration confirmation, or extension of the IP address lease.
- D. DHCP Offer messages are sent from the server to the client. They contain configuration parameters such as including the IP address.

**Correct Answer: B**

**Section:**

**QUESTION 117**

The option field in DHCP messages has a fixed length of four bytes.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 118**

When an Eudemon is working in composite mode, some of its interfaces are configured with IP addresses (Layer 3 interfaces) and the other interfaces are not configured with IP addresses (Layer 2 interfaces). To enable dual-system hot backup on an Eudemon, you can configure the Eudemon to work in composite mode.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 119**

Virtual firewalls on the Eudemon are not allowed to access each other by default unless a security policy is specified.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 120**

In a Land attack, the source address and destination address of an SYN packet are both the IP address of the attacked object or a loopback address.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 121**

The firewall does not use security rules to filter packets exchanged between interfaces in the same zone.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 122**

When the DHCP relay receives a DHCP request message in which the giaddr (gateway IP address) field is 0, how does the DHCP relay process the DHCP request message?

- A. The DHCP relay fills its IP address in the giaddr field and transmits the DHCP request message to the DHCP server in unicast mode.
- B. The DHCP relay fills its IP address in the giaddr field and transmits the DHCP request message in broadcast mode.
- C. The DHCP relay retains the value of the giaddr field and transmits the DHCP request message to the DHCP server in unicast mode.
- D. The DHCP relay retains the value of the giaddr field and transmits the DHCP request message in broadcast mode.

**Correct Answer: A**

**Section:**

**QUESTION 123**

Assume that the traceroute test is used to detect the packet forwarding path and tracert packets have passed through the firewall. Which of the following attack protection functions needs to be disabled to normally display the tracert result?

- A. ICMP-redirect
- B. ICMP-unreachable
- C. Tracert
- D. Smurf

**Correct Answer: C**

**Section:**

**QUESTION 124**

If only some devices on a network run MPLS (MPLS domain is encapsulated in the IP packet header), labels are generated only for direct routes of devices running MPLS. Labels are not generated for the routes originated from other devices running IP protocols.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 125**

What are the types of firewalls developed so far? (Choose three.)

- A. Packet filtering firewall
- B. Proxy firewall
- C. Anti-virus firewall
- D. Stateful firewall

**Correct Answer: A, B, D**

**Section:**

**QUESTION 126**

Which of the following statements about the zone priorities of the Eudemon are true? (Choose three.)

- A. The priority of the Local zone is 100.
- B. The priority of the Trust zone is 80.
- C. The priority of the Untrust zone is 5.
- D. The priority of the DMZ is 50.

**Correct Answer: A, C, D**

**Section:**

**QUESTION 127**

The traditional packet loss policy uses the Tail-Drop method.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 128**

What are the similarities of DHCP and BOOTP? (Choose two.)

- A. They work in client/server model.





- B. They work in static address allocation mode.
- C. They can dynamically obtain DNS addresses.
- D. They use the same packet structure.

**Correct Answer: A, D**

**Section:**

**QUESTION 129**

Users can change the priorities of default zones on the firewall as required.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 130**

Which of the following attacks can Eudemon defend against? (Choose three.)

- A. SYN-Flood
- B. SQL inject
- C. Port Scan
- D. Ping-Death

**Correct Answer: A, C, D**

**Section:**

**QUESTION 131**

How many user-defined security zones at most are configured on an Eudemon?

- A. 3
- B. 4
- C. 5
- D. 6

**Correct Answer: A**

**Section:**

**QUESTION 132**

Which statements about DHCP snooping are true? (Choose three.)

- A. The DHCP snooping binding table contains dynamic binding entries and static binding entries.
- B. DHCP snooping distinguishes the trusted interface and untrusted interfaces and discards DHCP Reply messages from untrusted interfaces.
- C. The static binding table is manually configured on the inbound interface and the aging time can also be manually set.
- D. When DHCP snooping is used at Layer 2, the interface information can be obtained for the binding table even if the Option 82 function is not configured.

**Correct Answer: A, B, D**



**Section:**

**QUESTION 133**

Which of the following commands is used to display the detailed information about the Eudemon?

- A. Display firewall statistic system
- B. Display firewall session table raw both-direction
- C. Display firewall session table verbose
- D. Display firewall session table detail

**Correct Answer: C**

**Section:**

**QUESTION 134**

The NAT function enabled on the Eudemon does not greatly affect system performance.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 135**

When a client applies for an IP address through DHCP, which message is the unicast message?

- A. DHCP OFFER
- B. DHCP REQUEST
- C. DHCP DISCOVER
- D. None of the above

**Correct Answer: D**

**Section:**

**QUESTION 136**

What is the maximum number of security zones supported by the Eudemon?

- A. 256
- B. 128
- C. 32
- D. 16

**Correct Answer: D**

**Section:**

**QUESTION 137**

If you have run the dot1x port-method command with the port parameter specified (port-based 802.1x authentication), the maximum number of users on an interface changes to 1. In this case, which statements are true? (Choose two.)



- A. You can run the dot1x max-user command to change the maximum number of access users.
- B. You cannot run the dot1x max-user command to set the maximum number of access users.
- C. You need to run the undo dot1x port-method command, and then set the maximum number of access users.
- D. All of the above

**Correct Answer: B, C**

**Section:**

**QUESTION 138**

What is the sequence of applying for an IP address in DHCP?

- A. The host sends a DHCP Request message to apply for an IP address.
- B. The DHCP server replies with a DHCP Offer message.
- C. The host sends a DHCP Discovery message to search for the DHCP server.
- D. The DHCP server replies with a DHCP ACK message after receiving the DHCP Request message.
- E. 1-2-3-4
- F. 1-4-3-2
- G. 3-2-1-4
- H. 3-4-1-2

**Correct Answer: C**

**Section:**

**QUESTION 139**

The IPSec function on the Eudemon supports NAT traversal.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 140**

To process fragmented service packets on an NAT-enabled firewall, which of the following functions needs to be enabled?

- A. Transparent fragment transmission
- B. Fragment cache
- C. Fragment reassembly
- D. MTU check

**Correct Answer: B**

**Section:**

**QUESTION 141**

Based on specific rules, traffic classification identifies packets having the same characteristics. Traffic classification is the prerequisite and basis for differentiated services.



- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 142**

You cannot set an aging time for the blacklist of the Eudemon.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 143**

Which of the following packet drop policies can be applied to the congestion avoidance mechanism? (Choose three.)

- A. Tail-drop
- B. RED
- C. WRED
- D. WFQ

**Correct Answer: A, B, C**

**Section:**



**QUESTION 144**

When recovering from a fault, the active link in a Smart Link group remains blocked and traffic is not switched back to it. In this way, traffic keeps stable.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 145**

RTA connected to a LAN by e0/0 whose IP address is 10.1.1.251 and network Mask is 255.255.255.0. Now create a virtual router with ID 1 and virtual IP address 10.1.1.254 on RTA. Which of the following commands are correct?

- A. [RTA-Ethernet0/0]vrrpvrid 1 virtual-ip 10.1.1.254
- B. [RTA]vrrpvrid 1 virtual-ip 10.1.1.254
- C. [RTA-Ethernet0/0]vrrpvrid 1 virtual-ip 10.1.1.254 mask 255.255.255.0
- D. [RTA]vrrpvrid 1 virtual-ip 10.1.1.254 mask 255.255.255.0

**Correct Answer: A**

**Section:**

**QUESTION 146**

To provide services of different qualities, you can classify services based on such packet information as the packet priority, source IP address, destination IP address, and port number. Which of the following QoS technology can be used to service classification?

- A. Traffic policing
- B. Traffic shaping
- C. Complex traffic classification
- D. Congestion management

**Correct Answer: C**

**Section:**

**QUESTION 147**

Which of the following statements about different detection intervals at both ends of a BFD session is true?

- A. The BFD session can be set up and the greater detection interval is used after negotiation.
- B. The BFD session can be set up and the smaller detection interval is used after negotiation.
- C. The BFD session can be set up and each end sends detection packets at its own interval.
- D. The BFD session cannot be set up.

**Correct Answer: A**

**Section:**

**QUESTION 148**

By using VRRP, the backup router in a VRRP backup group immediately becomes the master router after detecting a fault and instructs its attached hosts to perform a master/slave switchover accordingly. This ensures that services will recover within a short period of time.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 149**

Assume that the VRID of a VRRP virtual router is 100 and the virtual IP address of the virtual router is 192.168.1.1, which of the following addresses is the virtual MAC address of the virtual router?

- A. 00-00-5E-00-01-64
- B. 00-00-5E-00-01-01
- C. 01-00-5E-00-01-64
- D. 01-00-5E-00-01-01

**Correct Answer: A**

**Section:**

**QUESTION 150**

Which of the following are popular link efficiency mechanisms? (Choose two.)

- A. IPHC

- B. LFI
- C. HDLC
- D. PPP

**Correct Answer: A, B**

**Section:**

**QUESTION 151**

In traffic policing using two token buckets, tokens are put into the CBS bucket at the committed information rate (CIR).



```

[RTB]display ospf error
  OSPF Process 1 with Router ID 2.2.2.2
  OSPF error statistics:
General packet errors:
0  : IP: received my own packet      0  : Bad packet
0  : Bad version                     0  : Bad checksum
7  : Bad area id                     0  : Drop on unnumbered interface
0  : Bad virtual link                0  : Bad authentication type
0  : Bad authentication key          0  : Packet too small
0  : Packet size>ip length           0  : Transmit error
0  : Interface down                  0  : Unknown neighbor
HELLO packet errors:
0  : Netmask mismatch                0  : Hello timer mismatch
0  : Dead timer mismatch              0  : Extern option mismatch
9  : Router id confusion              0  : Virtual neighbor unknown
0  : NBMA neighbor unknown
DD packet errors:
0  : Neighbor state low               0  : Router id confusion
0  : Extern option mismatch           0  : Unknown LSA type
0  : MTU option mismatch
LS ACK packet errors:
0  : Neighbor state low               0  : Bad ack
0  : Duplicate ack                   0  : Unknown LSA type
LS REQ packet errors:
0  : Neighbor state low               0  : Empty request
0  : Bad request
LS UPD packet errors:
0  : Neighbor state low               0  : Newer self-generate LSA
0  : LSA checksum bad                 0  : Received less recent LSA
0  : Unknown LSA type
Opaque errors:
0  : 9-out of flooding scope          0  : 10-out of flooding scope
0  : 11-out of flooding scope
Retransmission for packet over Limitation errors:
0  : Number for DD Packet              0  : Number for Update Packet
0  : Number for Request Packet
Receive Grace LSA errors:
0  : Number of invalid LSAs           0  : Number of policy failed LSAs
0  : Number of wrong period LSAs
Configuration errors:
0  : Tunnel cost mistake
0  : The network type of the neighboring interface is not consistent

```



The peak burst size (PBS) bucket is filled in only after the CBS bucket is full.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 152**

Which of the following authentication modes does VRRP use? (Choose three.)

- A. No authentication
- B. Simple text password
- C. MD5
- D. CHAP

**Correct Answer: A, B, C**

**Section:**

**QUESTION 153**

Which of the following addresses is the destination address of VRRP packets?

- A. 224.0.0.18
- B. 224.0.0.19
- C. 224.0.1.18
- D. 224.0.1.19

**Correct Answer: A**

**Section:**

**QUESTION 154**

A BFD session is set up following the three-way handshake during which parameters for the BFD session are negotiated. After the BFD session is set up, modifying the detection time parameters does not take effect.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 155**

Which of the following statements about traffic policing are true? (Choose three.)

- A. Is used to limit the traffic transmission rate.
- B. Is used to color packets.
- C. Caches packets whose transmission rate exceeds the limit.
- D. Re-marks packets with priorities.

**Correct Answer: A, B, D**

**Section:**

**QUESTION 156**

Which of the following statements are correct regarding Master in VRRP? (Choose two.)



```
[SWA]display stp
-----[CIST Global Info] [Mode MSTP]-----
CIST Bridge       : 0.000f-e212-f8e1
Bridge Times      : Hello 2s MaxAge 20s FwDly 15s MAXHop 30
CIST Root/ERPC    : 0.000f-e212-f8e1 / 0
CIST RegRoot/IRPC : 0.000f-e212-f8e1 / 0
CIST RootportId   : 0.0
BPDU-Protection   : disabled
CIST Root Type    : PRIMARY root
TC or TCN received : 3
Time since last TC : 0 days 1h:23m:36s
```

- A. The router with highest priority will become Master.
- B. The router with smallest priority will become Slave.
- C. The router with highest priority may not always be Master.
- D. The router with smallest priority may not always be Slave.

**Correct Answer: C, D**

**Section:**

#### QUESTION 157

Assume that there are four flows a, b, c, and d, the transmission rate of each flow is 50 Mbit/s, and the total bandwidth of the interface for flow transmission is 100 Mbit/s. In the case of congestion, WFQ is available for flows a, b, c, and d, with the weight proportion being 1:2:3:4. Which of the following statement about the interface bandwidth allocated to each flow is true?

- A. Interface bandwidths allocated to flows a, b, c, and d are 10 Mbit/s, 20 Mbit/s, 30 Mbit/s, and 40 Mbit/s respectively.
- B. Interface bandwidths allocated to flows a, b, c, and d are 50 Mbit/s, 50 Mbit/s, 0 Mbit/s, and 0 Mbit/s respectively.
- C. Interface bandwidths allocated to flows a, b, c, and d are 40 Mbit/s, 30 Mbit/s, 20 Mbit/s, and 10 Mbit/s respectively.
- D. Flows a, b, c, and d are discarded.

**Correct Answer: A**

**Section:**

#### QUESTION 158

Which of the following are factors that affect QoS? (Choose three.)

- A. Bandwidth
- B. Cost
- C. Jitter
- D. Loss of packet

**Correct Answer: A, C, D**

**Section:**

#### QUESTION 159

Which of the following statements are correct regarding MAC address of VRRP packet? (Choose two.)

```
[SWC]display stp brief
MSTID    Port                Role    STP State    Protection
0        Ethernet1/0/2        DESI    FORWARDING   NONE
0        Ethernet1/0/3        DESI    FORWARDING   NONE
0        Ethernet1/0/12       ALTE    DISCARDING   NONE
0        Ethernet1/0/13       ROOT    FORWARDING   NONE
1        Ethernet1/0/2        DESI    FORWARDING   NONE
1        Ethernet1/0/12       ROOT    FORWARDING   NONE
1        Ethernet1/0/13       ALTE    DISCARDING   NONE
2        Ethernet1/0/3        DESI    FORWARDING   NONE
2        Ethernet1/0/12       ALTE    DISCARDING   NONE
2        Ethernet1/0/13       ROOT    FORWARDING   NONE
```

- A. The destination MAC is broadcast MAC address.
- B. The destination MAC is multicast MAC address.
- C. The source address is virtual MAC address.
- D. The source address is physical MAC address of Master.

**Correct Answer: B, C**

**Section:**

**QUESTION 160**

Which of the following statements about the refreshing mechanism in the case of link switchover in a Smart Link group is false?

- A. MAC and ARP entries are refreshed automatically against traffic.
- B. The Smart Link group uses a new link to send Flush packets.
- C. When the active link recovers from a fault, Flush packets are sent to refresh entries.
- D. When recovering from a fault, the active link remains blocked and traffic is not switched back to it. In this way, traffic keeps stable.

**Correct Answer: C**

**Section:**

**QUESTION 161**

Assume that the WRED policy for packets with the priority of AF21 is that the length of the queue for saving packets ranges from 35 to 40, and the discarding percentage is 50%. When a packet with the priority being AF21 arrives, which of the following statements are true? (Choose three.)

- A. If the average length of the queue is smaller than 35, the packet is added to the queue.
- B. If the length of the queue ranges between 35 and 40, the packet may be discarded with a possibility of 50%.
- C. If the average length of the queue is greater than 40, the packet is added to the queue.
- D. If the average length of the queue is greater than 40, the packet is discarded.

**Correct Answer: A, B, D**

**Section:**

**QUESTION 162**

Which of the following PHB types are defined in IETF DiffServ? (Choose three.)

- A. Default PH
- B. Class-Selector PHB
- C. Fast Forwarding PHB
- D. Assured Forwarding PHB

**Correct Answer: A, B, D**

**Section:**

#### QUESTION 163

Which of the following statements are correct regarding the function of VRRP?

- A. VRRP can improve the reliability of default gateway.
- B. VRRP increase the convergence speed of routing protocol.
- C. VRRP is mainly used for traffic balance.
- D. VRRP can provide one default gateway for different network segments, it simplifies the gateway configuration for PC.

**Correct Answer: A**

**Section:**

#### QUESTION 164

Which of the following statements are correct regarding priority in VRRP?

- A. The IP address owner always uses 255 as its priority regardless its config priority.
- B. The IP address owner always uses 0 as its priority regardless its config priority.
- C. We can configure the priority as 0 to make the router never attend the Master election.
- D. If a VRRP router changes from Master to Slave, it will send out a VRRP message with priority 0 in the network.



**Correct Answer: A**

**Section:**

#### QUESTION 165

Which of the following statements about a backup router in a VRRP backup group are true? (Choose three.)

- A. It receives VRRP packets from the master router and determines whether the master router is functioning properly.
- B. It does not respond to the ARP requests sent from a virtual IP address.
- C. It forwards an IP packet whose destination MAC address is a virtual MAC address.
- D. It discards an IP packet whose destination IP address is a virtual IP address.

**Correct Answer: A, B, D**

**Section:**

#### QUESTION 166

Most fields in IP headers of packets in the same data flow are identical. You can compress these fields to improve the link transmission efficiency.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 167**

When a local BFD session in the Init state receives packets with the Stat field being Down, the local BFD session changes its status to Down.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 168**

In traffic shaping, the packet whose transmission rate exceeds the rate limit will be discarded or re-marked.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 169**

BFD packets are classified into control packets and echo packets.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 170**

Assume that the following WRED policies are used in QoS:

The length of the queue for saving DSCP packets with the priority being AF21 ranges from 35 to 40.

The length of the queue for saving DSCP packets with the priority being AF22 ranges from 30 to 40.

The length of the queue for saving DSCP packets with the priority being AF23 ranges from 25 to 40.

In the case of congestion, DSCP packets with which of the following priority value will be discarded first?

- A. AF21
- B. AF22
- C. AF23
- D. All the same

**Correct Answer: C**

**Section:**

**QUESTION 171**

Availability identifies the utility of a system. The availability of the system increases if the MTBF decreases or the MTTR increases.



- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 172**

Traffic policing usually uses which of the following QoS technologies?

- A. GTS
- B. LR
- C. CAR
- D. WRED

**Correct Answer: C**

**Section:**

**QUESTION 173**

Assume that there are four flows a, b, c, and d, the transmission rate of each flow is 50 Mbit/s, and the total bandwidth of the interface for flow transmission is 100 Mbit/s. In the case of congestion, PQ is available for flow a. WFQ is available for flows b, c, and d, with the weight proportion being 1:2:3:4. Which of the following statement about the interface bandwidth allocated to each flow is true? (Choose two.)

- A. The interface bandwidth allocated to flow a is 100 Mbit/s.
- B. The interface bandwidth allocated to flow a is 50 Mbit/s.
- C. The interface bandwidth allocated to flows b is 10 Mbit/s and interface bandwidths allocated to flows c and d are 20 Mbit/s each.
- D. The interface bandwidth allocated to flows b is 25 Mbit/s and interface bandwidths allocated to flows c and d are 12.5 Mbit/s each.

**Correct Answer: B, C**

**Section:**

**QUESTION 174**

Which of the following statements about the VRRP working process is false?

- A. The router with the highest priority is elected as the master router.
- B. The master router sends gratuitous ARP packets to inform connected devices or hosts of its virtual MAC address.
- C. If the master router fails, the backup router with the highest priority is elected as the new master router.
- D. To ensure fast convergence, a backup router immediately becomes the master router if the priority of the backup router is higher than the priority of the master router.

**Correct Answer: D**

**Section:**

**QUESTION 175**

Based on fields IP precedence, MPLS EXP, or 802.1p, packets can be classified into how many service types?

- A. 4
- B. 6
- C. 7
- D. 8

**Correct Answer: D**

**Section:**

**QUESTION 176**

IP network can provide various packet forwarding service, the service demands that users care during packet forwarding include. (Choose three.)

- A. Throughput
- B. Delay
- C. Cost
- D. Loss of packet

**Correct Answer: A, B, D**

**Section:**

**QUESTION 177**

QoS includes which of the following aspects? (Choose three.)

- A. Transmission bandwidth
- B. Transmission delay and jitter
- C. Packet loss ratio
- D. Network security

**Correct Answer: A, B, C**

**Section:**

**QUESTION 178**

Which of the following link efficiency mechanism can be used to compress RTP and TCP packet headers?

- A. IPHC
- B. LFI
- C. PPP
- D. All of the above

**Correct Answer: A**

**Section:**

**QUESTION 179**

The Committed Access Rate (CAR) technology uses the token bucket (TB) to control traffic.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 180**

Which of the following statements about the jitter and delay are true? (Choose three.)



- A. The end-to-end delay is the sum of transmission delays, processing delays, and queuing delays along the packet forwarding path.
- B. The variation in packet delay is called jitter.
- C. The jitter depends on the delay. The lower the delay, the less the jitter.
- D. The jitter is independent of the delay.

**Correct Answer: A, B, C**

**Section:**

**QUESTION 181**

Assume that congestion occurs on the outbound interface, packet A is cached in the PQ, and packet B is cached in the WFQ, which of the following statement about packet scheduling is true?

- A. Packet A is scheduled first.
- B. Packet B is scheduled first.
- C. Packets A and B are scheduled at the same time.
- D. Packets A and B are discarded.

**Correct Answer: A**

**Section:**

**QUESTION 182**

Which of the following are disadvantages of the traditional tail drop mechanism? (Choose three.)

- A. TCP global synchronization
- B. TCP starvation
- C. High Average Link Utilization
- D. Packet drop is not based on priorities



**Correct Answer: A, B, D**

**Section:**

**QUESTION 183**

QoS can provide different quality of service according to different demands, which of the following are functions of QoS? (Choose three.)

- A. Providing private bandwidth for users
- B. Reducing cost of the network
- C. Congestion management and avoidance
- D. Specifying priority of packets

**Correct Answer: A, C, D**

**Section:**

**QUESTION 184**

Which of the following statements about the VRRP authentication is false?

- A. VRRP provides no authentication.
- B. VRRP provides the simple text authentication.

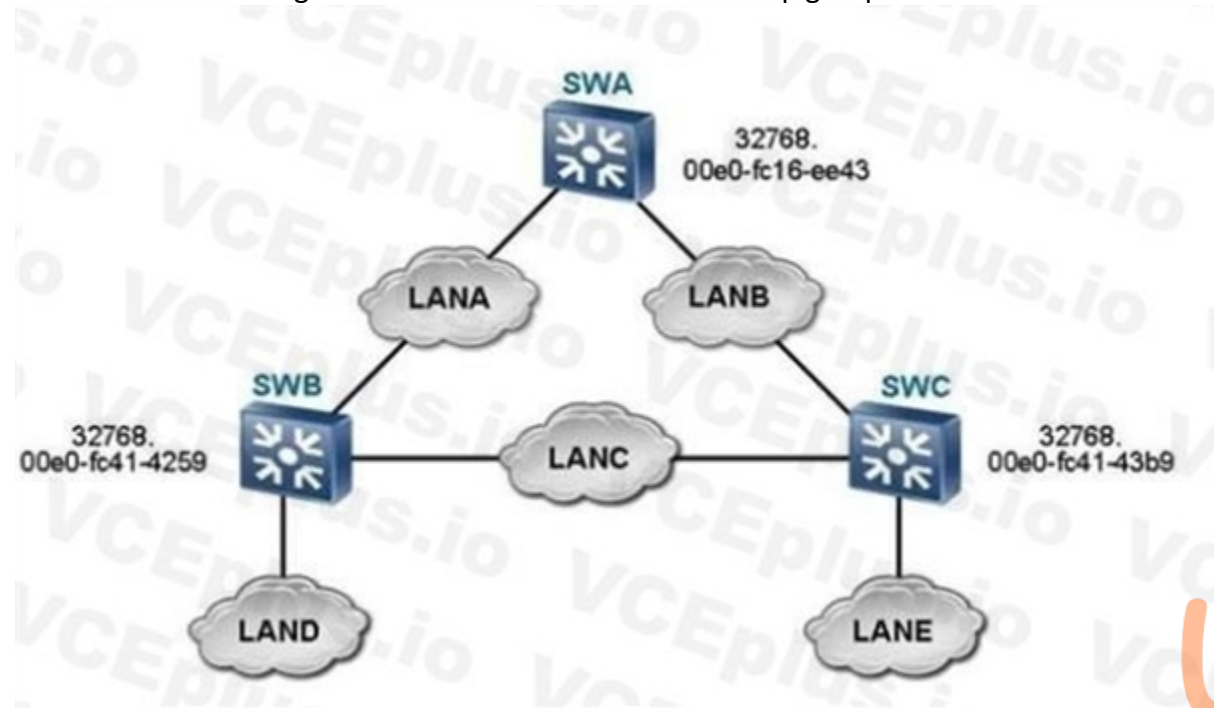
- C. VRRP provides the MD5 authentication.
- D. VRRP provides the RSA key authentication.

**Correct Answer: D**

**Section:**

**QUESTION 185**

Which of the following statements about the mVRRP backup group is false?



- A. Multiple service VRRP backup group can be bound to one mVRRP backup group.
- B. An mVRRP backup group can serve as a service VRRP backup group and thus be bound to another mVRRP backup group.
- C. One service VRRP backup group can be bound to only one mVRRP backup group.
- D. After multiple service VRRP backup groups are bound to an mVRRP backup group, the mVRRP backup group determines the status of all the service VRRP backup groups by sending VRRP packets. This can reduce the number of VRRP packets to be sent and improve the packet processing efficiency.

**Correct Answer: B**

**Section:**

**QUESTION 186**

Which of the following information in a packet can be marked or re-marked?

- A. IP DSCP, IP precedence, and 802.1p information
- B. IP source and destination addresses
- C. MAC address
- D. Any information in the packet

**Correct Answer: A**

**Section:**

**QUESTION 187**



Congestion occurs when a link or node is carrying so much data that its quality of service deteriorates.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 188**

If the Open message sent from a BGP speaker has the GR capability field but no <AFI, SAFI> field, the BGP speaker has no backup forwarding table. Such a BGP speaker functions as only the GR helper to help its neighbors complete the GR process.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 189**

The NSF function takes effect only after the GR function is enabled on two directly connected routers that use static routes for communication between users in different network segments.

- A. True
- B. False

**Correct Answer: B**

**Section:**



**QUESTION 190**

None Stop Forwarding (NSF) is an important high availability (HA) technology. It ensures the normal data forwarding even in the case of a fault in the control plane of the router, protecting key services on the network from interruption.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 191**

Ethernet0/0 of RTA and Ethernet0/0 of RTB connect to the same LAN, both are enabled with VRRP. Create a virtual router with ID 1 and virtual IP address 10.1.1.254. Which of the following commands can make RTB Master without modifying the priority of RTA?

- A. [RTB-Ethernet0/0]vrrpvrid 1 priority 200
- B. [RTB-Ethernet0/0]vrrpvrid 1 virtual-ip 10.1.1.254 priority 200
- C. [RTB-Ethernet0/0]vrrpvrid 1 force-master
- D. [RTB]vrrpvrid 1 force-master

**Correct Answer: A**

**Section:**

**QUESTION 192**

A VRRP backup group is able to track the status of an interface. If the interface configured with a VRRP backup group fails or any interface on the router fails, the VRRP backup group provides a backup for the faulty interface.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 193**

What is the legal virtual MAC address in VRRP?

- A. 01-01-5E-00-01-01
- B. 01-00-5E-00-01-00
- C. 00-00-5E-00-01-01
- D. 01-01-5E-00-00-01

**Correct Answer: C**

**Section:**

**QUESTION 194**

Simple traffic classification can be performed based on which of the following information in IPv4 packets? (Choose two.)

- A. DSCP
- B. IP precedence
- C. EXP
- D. 802.1p

**Correct Answer: A, B**

**Section:**

**QUESTION 195**

Which of the following statements about a backup router in a VRRP backup group are true? (Choose three.)

- A. It receives VRRP packets from the master router and determines whether the master router is functioning properly.
- B. It responds to the ARP requests sent from a virtual IP address.
- C. It discards an IP packet whose destination MAC address is a virtual MAC address.
- D. It discards an IP packet whose destination IP address is a virtual IP address.

**Correct Answer: A, C, D**

**Section:**

**QUESTION 196**

The formula for calculating the MTTR is:  $MTTR = \text{Fault detection time} + \text{Board replacement time} + \text{System initialization time} + \text{Link recovery time} + \text{Route convergence time} + \text{Forwarding recovery time}$ . The smaller the addends are, the smaller the MTTR is and the higher the device availability is.

- A. True



B. False

**Correct Answer: A**

**Section:**

**QUESTION 197**

Which of the following is not the BFD fault detection mode?

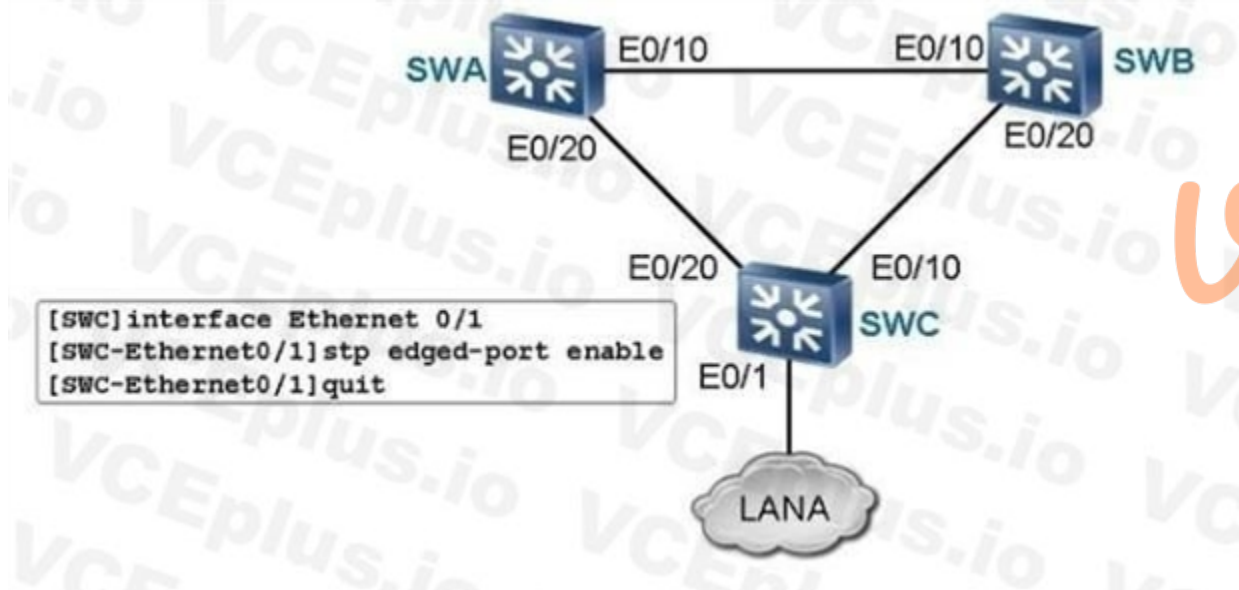
- A. Asynchronous mode
- B. Demand mode
- C. Echo mode
- D. Peer mode

**Correct Answer: D**

**Section:**

**QUESTION 198**

Which of the following statements about the mVRRP backup group are true? (Choose three.)



- A. An mVRRP backup group can be bound to other service VRRP backup groups.
- B. An mVRRP backup group cannot be bound to multiple service VRRP backup groups but can function as a service VRRP group to be bound to another mVRRP group.
- C. After a VRRP backup group member is bound to an mVRRP backup group, the state machine of the VRRP backup group member becomes dependent. That is, the VRRP backup group member deletes the protocol timer, and no longer sends or receives packets, and implements its state machine by directly copying the status of the mVRRP backup group.
- D. A VRRP backup group member can be bound to only one mVRRP backup group.

**Correct Answer: A, C, D**

**Section:**

**QUESTION 199**

Which of the following congestion avoidance mechanisms can be used to avoid global TCP synchronization? (Choose two.)

- A. RED
- B. WRED

- C. FIFO
- D. WFQ

**Correct Answer: A, B**

**Section:**

**QUESTION 200**

Which of the following statement about the jitter and delay is false?

- A. The jitter depends on the delay.
- B. The variation in packet delay is called jitter.
- C. The lower the delay is, the less the jitter is.
- D. The jitter is independent of the delay.

**Correct Answer: D**

**Section:**

**QUESTION 201**

The interface IP address and virtual IP address configured for VRRP must not be identical.

- A. True
- B. False

**Correct Answer: B**

**Section:**



**QUESTION 202**

Which of the following statements are correct regarding default gateway of PC in the network running VRRP?

- A. Configure only one gateway for the PC which is the IP address of Master.
- B. Configure only one gateway for the PC which is the IP address of virtual router.
- C. Configure two gateways for the PC which are the IP addresses of Master and Slave.
- D. Configure three gateways for the PC which are the IP addresses of Master, Slave and virtual router.

**Correct Answer: B**

**Section:**

**QUESTION 203**

In traffic policing using two token buckets & two-rate, when the CIR is set to 1 Mbit/s and the PIR is set to 2 Mbit/s, what is the maximum transmission rate for the traffic in green?

- A. 1 Mbit/s
- B. 2 Mbit/s
- C. 3 Mbit/s
- D. 4 Mbit/s

**Correct Answer: A**

**Section:**

**QUESTION 204**

WFQ can effectively control the delay and jitter by means of configuring weights for different services.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 205**

The IP packet has a special field to mark the QoS. For example, the last 6 bits in the ToS field of an IPv4 packet mark the DSCP value.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 206**

Which of the following statements about the device state change is correct after failure in the intermediate link for transmitting VRRP heartbeats?

- A. The status of the master and slave devices remains unchanged.
- B. Both the master and slave devices enter the Master state.
- C. Both the master and slave devices enter the Slave state.
- D. Both the master and slave devices enter the Initial state.



**Correct Answer: B**

**Section:**

**QUESTION 207**

IP QoS models include: (Choose three.)

- A. Best-Effort
- B. Integrated Service
- C. Differentiated Service
- D. FIFO Service

**Correct Answer: A, B, C**

**Section:**

**QUESTION 208**

The virtual router uses a virtual MAC address but not the actual MAC address of the interface to respond to an ARP request.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 209**

A VRRP virtual router can have one or more IP addresses.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 210**

After the session is re-established between the BGP GR helper and its neighbor, original forwarding entries are deleted.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 211**

Which of the following statements about the master router in a VRRP backup group are true? (Choose three.)

- A. It regularly sends VRRP packets.
- B. It uses a virtual MAC address to respond to ARP requests sent from a virtual IP address.
- C. It forwards an IP packet whose destination MAC address is a physical MAC address.
- D. It changes to the Backup state if the priority carried in the received packet is greater than its own priority.

**Correct Answer: A, B, D**

**Section:**

**QUESTION 212**

The reliability of a product or a system is generally evaluated with the two indicators of Mean Time to Repair (MTTR) and Mean Time Between Failures (MTBF).

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 213**

During the GR of dynamic routing protocols (such as OSPF and BGP) neighbor relationships remain unchanged.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 214**

Complex traffic classification matches packets with rules and then takes actions to matching packets.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 215**

Which of the following technologies are available for traffic shaping? (Choose two.)

- A. GTS
- B. LR
- C. CAR
- D. WRED

**Correct Answer: A, B**

**Section:**

**QUESTION 216**

Traffic shaping uses queues to cache traffic whose transmission rate exceeds the limit. Which of the following statement about traffic shaping is not true?

- A. Compared with traffic policing, traffic shaping is advanced in terms of caching burst traffic.
- B. With traffic shaping, packets can be transmitted at an even rate.
- C. Caching packets in the queue increases the packet delay in case of congestion.
- D. In case of congestion, traffic shaping causes the packet loss ratio to increase.



**Correct Answer: D**

**Section:**

**QUESTION 217**

Which of the following statements are correct regarding VRRP?

- A. Only Master can process the data packets sending to virtual router.
- B. Only Slave can process the data packets sending to virtual router.
- C. Both Master and Slave can process the data packets sending to the same virtual router to realize load balance.
- D. By default, only Master can process the data packets sending to virtual router; but we can do some configuration to make the Slave process the data packets sending to virtual router.

**Correct Answer: A**

**Section:**

**QUESTION 218**

Which of the following statement about QoS in DiffServ mode is false?

- A. The parameter field in the IP packet header informs devices on the network of the QoS requirements of the application.
- B. Every device on the packet transmission paths can learn the service request types by analyzing the IP packet header.
- C. Before sending packets, the application program needs to confirm that the network has reserved resources for packet transmission.

D. DiffServ is a QoS solution based on packets.

**Correct Answer: C**

**Section:**

**QUESTION 219**

In addition to traffic rate limit, the CAR can mark packets with colors. If one token bucket & one-rate is used in traffic policing and the number of tokens is insufficient, packets are marked with which of the following color?

- A. Red
- B. Green
- C. Yellow
- D. Blue

**Correct Answer: A**

**Section:**

**QUESTION 220**

BFD is a common fast detection technology. It implements the fast switchover function only when collaborating with other fast switchover technologies.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 221**

Which of the following statement about packet marking is false?

- A. TheQosInfo field of the packet can be marked.
- B. The DSCP and IP precedence fields of the IP packet can be marked.
- C. The 802.1p field of the VLAN packet can be marked.
- D. The IP address of the packet can be marked.

**Correct Answer: D**

**Section:**

**QUESTION 222**

BFD (a fast detection technology) enabled on a device quickly identifies a fault and reports the fault to the appropriate protocol module after detecting a master/ slave switchover on the neighboring device. This causes the protocol module to quit the GR. As such, BFD and GR cannot be used together.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 223**

QoS can be performed in which of the following modes? (Choose three.)





- A. Best-effort service
- B. Integrated service
- C. Differentiated service
- D. Assured forwarding service

**Correct Answer: A, B, C**

**Section:**

**QUESTION 224**

Exhibit:



```

[RTB]display ospf error
      OSPF Process 1 with Router ID 2.2.2.2
      OSPF error statistics:
General packet errors:
0  : IP: received my own packet      0  : Bad packet
0  : Bad version                    0  : Bad checksum
0  : Bad area id                    0  : Drop on unnumbered interface
0  : Bad virtual link                0  : Bad authentication type
0  : Bad authentication key          0  : Packet too small
0  : Packet size>ip length           0  : Transmit error
0  : Interface down                 0  : Unknown neighbor
HELLO packet errors:
9  : Netmask mismatch               0  : Hello timer mismatch
0  : Dead timer mismatch            0  : Extern option mismatch
0  : Router id confusion            0  : Virtual neighbor unknown
0  : NBMA neighbor unknown
DD packet errors:
0  : Neighbor state low              0  : Router id confusion
0  : Extern option mismatch          0  : Unknown LSA type
0  : MTU option mismatch
LS ACK packet errors:
0  : Neighbor state low              0  : Bad ack
0  : Duplicate ack                  0  : Unknown LSA type
LS REQ packet errors:
0  : Neighbor state low              0  : Empty request
0  : Bad request
LS UPD packet errors:
0  : Neighbor state low              0  : Newer self-generate LSA
0  : LSA checksum bad               0  : Received less recent LSA
0  : Unknown LSA type
Opaque errors:
0  : 9-out of flooding scope         0  : 10-out of flooding scope
0  : 11-out of flooding scope
Retransmission for packet over Limitation errors:
0  : Number for DD Packet            0  : Number for Update Packet
0  : Number for Request Packet
Receive Grace LSA errors:
0  : Number of invalid LSAs          0  : Number of policy failed LSAs
0  : Number of wrong period LSAs
Configuration errors:
0  : Tunnel cost mistake
0  : The network type of the neighboring interface is not consistent

```



Based on the DSCP field (first 6 bits of the ToS field), packets can be classified into how many types?

- A. 4
- B. 8
- C. 16
- D. 64

**Correct Answer: D**

**Section:**

**QUESTION 225**

Simple traffic classification can be performed based on which of the following information in VLAN packets?

- A. DSCP
- B. IP precedence
- C. MPLX EXP
- D. 802.1p

**Correct Answer: D**

**Section:**

**QUESTION 226**

The dynamic LACP requires devices at both ends to exchange protocol packets, while the static LACP does not require so.

- A. True
- B. False

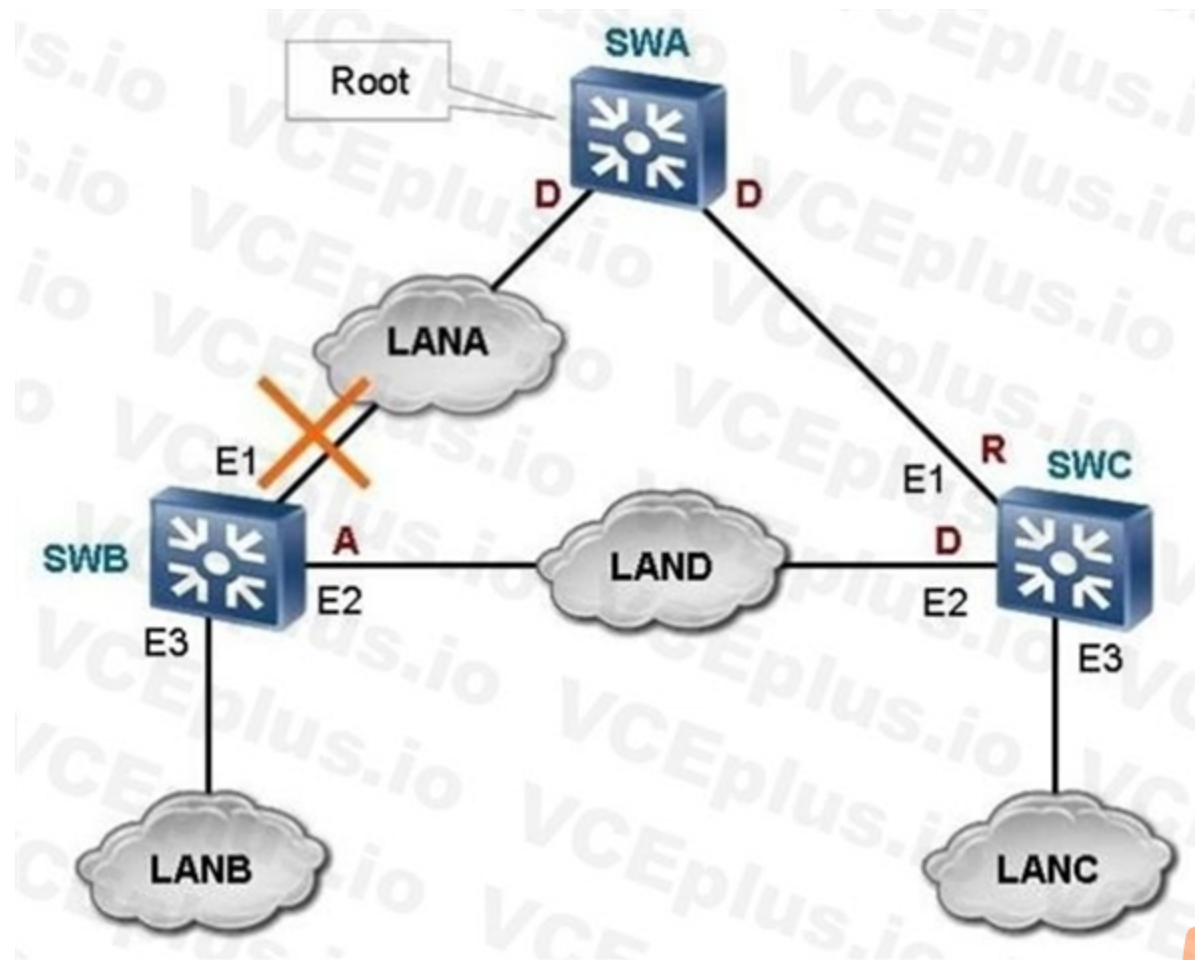
**Correct Answer: B**

**Section:**

**QUESTION 227**

Which of the following statements about VRRP fast switchover are true? (Choose three.)





- A. When VRRP is used to track a BFD or EFM session, if a tracked BFD or EFM session status changes, the BFD or EFM module notifies the VRRP module of the change. After that, the VRRP module implements a rapid master/backup switchover.
- B. A VRRP backup group can monitor a peer BFD session, a link BFD session, and a normal BFD session at the same time. In addition, it can monitor the interface status.
- C. When the status of a BFD session detected by a VRRP backup group changes, the master/slave switchover of routers in the VRRP backup group occurs by changing priorities of the master and slave routers.
- D. A VRRP backup group can monitor several BFD sessions at the same time. The status changes of these BFD sessions affect each other.

**Correct Answer: A, B, C**

**Section:**

**QUESTION 228**

Which of the following numbers is the protocol number of VRRP packets?

- A. 112
- B. 113
- C. 114
- D. 115

**Correct Answer: A**

**Section:**

**QUESTION 229**

Traffic shaping usually buffers packets that need to be dropped by traffic policing by means of buffer and token bucket.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 230**

In case of congestion, which of the following indexes will affect QoS? (Choose three.)

- A. Transmission delay
- B. Transmission jitter
- C. Packet loss ratio
- D. Transmission distance

**Correct Answer: A, B, C**

**Section:**

**QUESTION 231**

BFD detects the link status immediately after a BFD session is set up. If BFD parameters are modified or deleted at one end of the BFD session, the other end will consider such a modification or deletion as a fault and services will be then affected. Therefore, exercise caution when modifying or deleting BFD parameters.

- A. True
- B. False

**Correct Answer: B**

**Section:**



**QUESTION 232**

Which of the following statements are correct regarding VRRP advertisement message?

- A. VRRP has two kinds of advertisement message, one is sent by Master, the other is sent by Slave.
- B. VRRP has one kind of advertisement message which is sent by Master.
- C. VRRP has one kind of advertisement message which is sent by Slave.
- D. VRRP has two kinds of advertisement message, one is used for Master election, the other one is used in stable network after Master election.

**Correct Answer: B**

**Section:**

**QUESTION 233**

Complex traffic classification can be performed based on which of the following packet information? (Choose three.)

- A. Packet priority
- B. Source and destination addresses
- C. Total Length of the Packet
- D. Source and destination port numbers

**Correct Answer: A, B, D**

**Section:**

**QUESTION 234**

Which of the following queue scheduling technology can achieve better fairness?

- A. WFQ
- B. PQ
- C. CQ
- D. RR

**Correct Answer: A**

**Section:**

**QUESTION 235**

Simple traffic classification in QoS classifies packets based on the 5-tuple information, including the source IP address, source port number, protocol number, destination IP address, and destination port number.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 236**

Which LSA is used by OSPF to implement GR?

- A. Type-3 LSA
- B. Type-5 LSA
- C. Type-9 LSA
- D. Type-10 LSA

**Correct Answer: C**

**Section:**

**QUESTION 237**

None Stop Forwarding (NSF) is an important HA technology. It keeps neighbor relationships unchanged even in the case of a fault in the control plane of the router, protecting key services on the network from interruption.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 238**

Which of the following BFD versions is supported in VRP 5.7?

- A. Version 0
- B. Version 1



- C. Version 2
- D. Version 3

**Correct Answer: B**

**Section:**

**QUESTION 239**

Which of the following statements about VRRP are true? (Choose three.)

- A. VRRP determines the roles of routers (master or backup) in a virtual router based on their priorities.
- B. If a backup router works in non-preemption mode and has a higher priority than the master router, it will become the master router unless the master router fails.
- C. After a backup router in preemption mode receives a VRRP packet from the master router, it compares its priority with the priority carried in the VRRP packet. If its priority is higher than the priority of the master router, it preempts to become the master router; if not, it remains in the backup state.
- D. If two routers competing for the master router have the same priority, the router with a higher interface IP address becomes the master router.

**Correct Answer: A, C, D**

**Section:**

**QUESTION 240**

Which of the following statements about VRRP are true? (Choose three.)

- A. VRRP is a redundancy protocol designed for a multicast- or broadcast-capable LAN such as the Ethernet. VRRP ensures that traffic is switched to another router when the next-hop router for a host on the LAN fails. This guarantees reliability and non-stop forwarding of services.
- B. In VRRP, two virtual router ID and a virtual IP address need to be configured on a router to generate a virtual MAC address. A virtual router is formed.
- C. Hosts on a network can communicate with a virtual router without knowing any information about physical routers on the network.
- D. A virtual router consists of a master router and several backup routers. The master router forwards packets. When the master router fails, a backup router takes over as the master router.

**Correct Answer: A, C, D**

**Section:**

**QUESTION 241**

BFD control packets are encapsulated in UDP packets for transmission. Which of the following is the destination port number for single-hop BFD control packets?

- A. 3784
- B. 4784
- C. 5784
- D. 6784

**Correct Answer: A**

**Section:**

**QUESTION 242**

Based on classification rules, traffic classification can be divided into which of the following types? (Choose two.)

- A. Simple traffic classification
- B. Complex traffic classification
- C. On-demand traffic classification



D. Service traffic classification

**Correct Answer: A, B**

**Section:**

**QUESTION 243**

A company has four departments. Department A has 80 PCs, Departments B and C both have 20 PCs, and Department D has 30 PCs. Assuming the IP address 192.168.1.0/x is used, which of the following statements are true if the VLSM technology is used to divide subnets? (Choose two.)

- A. Plan subnet 192.168.1.0/25 for DepartmentA. The range of host addresses is 1 to 126.
- B. Plan subnet 192.168.1.128/27 for DepartmentB. The range of host addresses is 129 to 159.
- C. Plan subnet 192.168.1.160/27 for DepartmentC. The range of host addresses is 161 to 190.
- D. Plan subnet 192.168.1.192/27 for DepartmentD. The range of host addresses is 192 to 222.

**Correct Answer: A, C**

**Section:**

**QUESTION 244**

Which statement about OSPF is false?

- A. The router with a higher Router Priority also has a higher DR election priority.
- B. When two routers have the same Router Priorities, the router with a larger Router ID has a higher DR election priority.
- C. If a DR fails, the BDR automatically takes over as the DR and a new BDR is elected.
- D. If a BDR fails, the DR will not take over as the BDR and awaits the fault recovery of the BDR. No new BDR will be elected.

**Correct Answer: D**

**Section:**

**QUESTION 245**

The network 154.27.0.0 without any subnet can support() hosts?

- A. 254
- B. 1024
- C. 65,534
- D. 16,777,206

**Correct Answer: C**

**Section:**

**QUESTION 246**

Which of the following statements about a neighbor state machine is true?

- A. The Attempt state appears only on an NBMA network or a broadcast network.
- B. The Attempt state appears only on an NBMA network or a P2MP network.
- C. LSR packets can be sent in the Exchange state.
- D. The Full state indicates that LSDB synchronization is complete. No LSDB information will be exchanged.



**Correct Answer: C**

**Section:**

**QUESTION 247**

Which of the following IP addresses are network addresses? (Choose two.)

- A. 64.104.3.7/28
- B. 192.168.12.64/26
- C. 192.135.12.191/26
- D. 198.18.12.16/28

**Correct Answer: B, D**

**Section:**

**QUESTION 248**

Assume that the VRID of a VRRP virtual router is 100 and the virtual IP address of the virtual router is 192.168.1.1, which of the following addresses is the virtual MAC address of the virtual router?

- A. 00-00-5E-00-01-64
- B. 00-00-5E-00-01-01
- C. 01-00-5E-00-01-64
- D. 01-00-5E-00-01-01

**Correct Answer: A**

**Section:**

**QUESTION 249**

What are the OSPF message types? (Choose four.)

- A. Hello
- B. Database Description
- C. Link State Request
- D. Link State Update
- E. Link State Advertisement

**Correct Answer: A, B, C, D**

**Section:**

**QUESTION 250**

Which of the following statements are correct regarding Network LSA in OSPF network? (Choose two.)

- A. Network LSA is generated by ABR.
- B. Only the router which connects NBMA or Broadcast Network may generate Network LSA.
- C. DR uses Network LSA to describe routers that have established adjacency relation with it in the network.
- D. Network LSA is flooded in the whole AS.

**Correct Answer: B, C**

**Section:**



**QUESTION 251**

A broadcast and an NBMA network, each having two or more routers, must both have a DR and a BDR.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 252**

ABRs advertise link status information about connected non-backbone areas to the backbone area. The backbone area then advertises the routing information to other non-backbone areas. Link status information about the backbone area cannot be advertised to non-backbone areas.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 253**

OSPF directly runs over the IP protocol. Its IP protocol number is 89.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 254**

Which of the following statements about link aggregation are true? (Choose three.)

- A. Link aggregation binds a group of physical interfaces together as a logical interface to increase the bandwidth and reliability.
- B. Link aggregation complies with IEEE 802.3az.
- C. The logical link formed by bundling multiple physical links together is called a link aggregation group (LAG) or a trunk.
- D. Active and inactive interfaces exist in link aggregation. Active interfaces forward data, whereas inactive interfaces do not.

**Correct Answer: A, C, D**

**Section:**

**QUESTION 255**

When links are switched in a Smart Link group, which of the following mechanisms can be used to refresh MAC and ARP entries? (Choose three.)

- A. MAC and ARP entries are refreshed automatically with respect to traffic.
- B. The Smart Link group uses a new link to send Flush packets.
- C. MAC entries are refreshed after the aging time expires.
- D. ARP entries are refreshed after the aging time expires

**Correct Answer: A, B, C**



**Section:**

**QUESTION 256**

Which of the following statements about the BFD asynchronous mode are true? (Choose two.)

- A. The local system regularly sends BFD control packets, and the remote system detects the BFD control packets sent from the local system.
- B. The local system detects the BFD control packets sent by itself.
- C. If one system does not receive any BFD packets from its peer within a detection period, it advertises a session Down event.
- D. Each system confirms its connections with other systems in a particular method. After a BFD session is set up, BFD control packets are no longer sent.

**Correct Answer: A, C**

**Section:**

**QUESTION 257**

Routes 172.1.12.0/24, 172.1.13.0/24, 172.1.14.0/24, and 172.1.15.0/24 can be summarized into route 172.1.8.0/21.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 258**

Which of the following statements are true? (Choose three.)

- A. The neighbor state machine can transition from the Down state to the Exchange state.
- B. The neighbor state machine can transition from the Down state to the Init state.
- C. The neighbor state machine can transition from the Init state to the Exstart state.
- D. The neighbor state machine can transition from the Init state to the 2-Way state.

**Correct Answer: B, C, D**

**Section:**

**QUESTION 259**

A router receives a data packet, with the destination address being 195.26.17.4. Which subnet is this address in?

- A. 195.26.0.0/21
- B. 195.26.16.0/20
- C. 195.26.8.0/22
- D. 195.26.20.0/22

**Correct Answer: B**

**Section:**

**QUESTION 260**

Which of the following statements about the reliability requirement level are true? (Choose three.)



- A. Faults seldom occur in the system software or hardware.
- B. System functions are affected by faults.
- C. System functions are affected by faults but can rapidly recover.
- D. System functions can be ensured by using redundancy design, switchover policy, and high success rate in switchover.

**Correct Answer: A, C, D**

**Section:**

**QUESTION 261**

The value of ospfdr-priority ranges from 0 to 255 and the default value is 64.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 262**

For a network like 175.25.128.0/19, the mask value is?

- A. 255.255.0.0
- B. 255.255.224.0
- C. 255.255.24.0
- D. Different based on the address type

**Correct Answer: B**

**Section:**

**QUESTION 263**

Which of the following statements about Stub areas is false?

- A. An AS-external-LSA cannot be advertised to a Stub area.
- B. The ABR in the Stub area generates a default route to guide forwarding of packets destined for other areas.
- C. A Transit area cannot be configured as a Stub area.
- D. Any area can be configured as a Stub area.

**Correct Answer: D**

**Section:**

**QUESTION 264**

If the network address 172.29.100.0/16 is subnetted, which of the following valid VLSM subnets can be obtained?

- A. 172.29.100.8/28
- B. 172.29.100.32/28
- C. 172.29.100.60/28
- D. 172.29.100.104/28



**Correct Answer: B**

**Section:**

**QUESTION 265**

Which of the followings are OSPF packet type? (Choose three.)

- A. LSA
- B. LS Request
- C. LSP
- D. LS Update
- E. LS Ack

**Correct Answer: B, D, E**

**Section:**

**QUESTION 266**

The IP address 0.0.0.0 indicates ().

- A. Network address
- B. Broadcast address of specially designated network segment
- C. All networks
- D. Broadcast address of all nodes of local network segment

**Correct Answer: C**

**Section:**

**QUESTION 267**

What is the link ID of an ASBR-Summary-LSA?

- A. OSPF Router ID of an LSA's originator
- B. Port IP address of the DR on the described network segment
- C. Address of the destination network segment
- D. Router ID of the destination ASBR

**Correct Answer: D**

**Section:**

**QUESTION 268**

When the GR Restarter performs the active/standby switchover, the neighbor performs which of the following operations when detecting that a TCP disconnection? (Choose three.)

- A. Keeping the routing tables of various address families advertised by the GR Restarter during negotiation, marking entries in these tables with stale tags, and starting a stale timer
- B. Starting a restart timer.
- C. Clearing all routing entries and forwarding entries related to the GR restarter if the GR restarter fails to re-establish the BGP connection with the neighbor after the restart timer expires.
- D. Remaining the neighbor relationship unchanged.

**Correct Answer: A, B, C**

**Section:**



**QUESTION 269**

On a broadcast network or an NBMA network, not all neighbors need to set up adjacencies. Therefore, the concept about the adjacency is applicable to only the broadcast network or the NBMA network.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 270**

Which is the default network mask length of 219.25.23.56?

- A. 8
- B. 16
- C. 24
- D. 32

**Correct Answer: C**

**Section:**

**QUESTION 271**

If both the ospf cost and bandwidth-reference commands are configured on an interface, the value set in the ospf cost command is used as the cost of the interface.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 272**

The vlink-peer command is used to specify a peer IP address for setting up a virtual link.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 273**

The bandwidth-reference parameter is measured in Mbit/s.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 274**

Which of the following statements about BFD are true? (Choose three.)

- A. It cannot be used to detect MPLS networks.
- B. It provides low-load and short-duration detection for paths between adjacent forwarding engines.
- C. It provides a unified mechanism for detecting all types of media and BFD-supporting protocols.
- D. It is a bidirectional detection mechanism.

**Correct Answer: B, C, D**

**Section:**

**QUESTION 275**

Which of the following statements about the Monitor Link group is false?

- A. A Monitor Link group has uplink and downlink interfaces.
- B. A Monitor Link group has one uplink interface and several downlink interfaces.
- C. In a Monitor Link group, the status of the downlink interface changes in accordance with the status of the uplink interface.
- D. The Smart Link group can only serve as a downlink interface.

**Correct Answer: D**

**Section:**

**QUESTION 276**

An OSPF neighbor relationship fails to be established and the display ospf error command output is as follows.



```

[RTB]display ospf error
  OSPF Process 1 with Router ID 2.2.2.2
  OSPF error statistics:
General packet errors:
0  : IP: received my own packet      0  : Bad packet
0  : Bad version                    0  : Bad checksum
7  : Bad area id                    0  : Drop on unnumbered interface
0  : Bad virtual link               0  : Bad authentication type
0  : Bad authentication key         0  : Packet too small
0  : Packet size>ip length          0  : Transmit error
0  : Interface down                 0  : Unknown neighbor
HELLO packet errors:
0  : Netmask mismatch               0  : Hello timer mismatch
0  : Dead timer mismatch            0  : Extern option mismatch
9  : Router id confusion            0  : Virtual neighbor unknown
0  : NBMA neighbor unknown
DD packet errors:
0  : Neighbor state low              0  : Router id confusion
0  : Extern option mismatch          0  : Unknown LSA type
0  : MTU option mismatch
LS ACK packet errors:
0  : Neighbor state low              0  : Bad ack
0  : Duplicate ack                  0  : Unknown LSA type
LS REQ packet errors:
0  : Neighbor state low              0  : Empty request
0  : Bad request
LS UPD packet errors:
0  : Neighbor state low              0  : Newer self-generate LSA
0  : LSA checksum bad               0  : Received less recent LSA
0  : Unknown LSA type
Opaque errors:
0  : 9-out of flooding scope        0  : 10-out of flooding scope
0  : 11-out of flooding scope
Retransmission for packet over Limitation errors:
0  : Number for DD Packet            0  : Number for Update Packet
0  : Number for Request Packet
Receive Grace LSA errors:
0  : Number of invalid LSAs         0  : Number of policy failed LSAs
0  : Number of wrong period LSAs
Configuration errors:
0  : Tunnel cost mistake
0  : The network type of the neighboring interface is not consistent

```



Which of the following is the probable cause?

- A. Router IDs conflict.
- B. Area IDs are mismatched.
- C. Network masks are inconsistent.
- D. Authentication types are inconsistent.



**Correct Answer: B**

**Section:**

**QUESTION 277**

A network administrator needs to construct a small-scale network containing only 22 hosts and the ISP assigns only one public IP address as the egress address. Which of the following addresses can be used by the network administrator to plan the network?

- A. 10.11.12.16/28
- B. 172.31.255.128/27
- C. 192.168.1.0/28
- D. 209.165.202.128/27

**Correct Answer: B**

**Section:**

**QUESTION 278**

Which of the following statements about state transition are true? (Choose three.)

- A. The neighbor state machine transitions from the Loading state to the Full state if a LoadingDone event occurs.
- B. The neighbor state machine transitions from the Exstart state to the Full state if a NegotiationDone event occurs.
- C. The neighbor state machine transitions from the Exchange state to the Full state if an ExchangeDone event occurs.
- D. The neighbor state machine transitions from the Exchange state to the Loading state if an ExchangeDone event occurs.

**Correct Answer: A, C, D**

**Section:**



**QUESTION 279**

On a non-broadcast network, OSPF has two operating modes: NBMA and P2MP.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 280**

The most remarkable characteristic of OSPF is that OSPF supports the link-state algorithm.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 281**

The ABR in a Totally Stubby area will not advertise Type-3, Type-4, and Type-5 LSAs to the Totally Stubby area. Instead, the ABR will advertise a default route to the Totally Stubby area to guide forwarding of packets destined for other areas.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 282**

What is the maximum bits of a Class C address can be used for subnet?

- A. 6
- B. 8
- C. 12
- D. 14

**Correct Answer: A**

**Section:**

**QUESTION 283**

Which of the following statements about the setup of a BFD session are true? (Choose three.)

- A. A BFD session can be set up in either static or dynamic mode.
- B. A static BFD session is set up by manually configuring BFD session parameters and delivering requests for setting up a BFD session. BFD session parameters include the local and remote discriminators.
- C. A dynamic BFD session is set up by dynamically allocating local discriminators.
- D. Static and dynamic BFD sessions are not differentiated.



**Correct Answer: A, B, C**

**Section:**

**QUESTION 284**

Which of the following statements about the Smart Link group is false?

- A. A Smart Link group has two interfaces at most. The two interfaces if configured are an active interface and a standby interface.
- B. Among the two interfaces in a Smart Link group, one is in the active state and the other one in the standby state in normal situations.
- C. When the active interface goes down, the Smart Link group automatically blocks it and changes the status of the standby interface to active.
- D. When the active interface recovers from a fault, traffic will be switched back to it immediately.

**Correct Answer: D**

**Section:**

**QUESTION 285**

Different from a Stub area, an NSSA supports Type-5 LSAs.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 286**

Which of the following are characteristics of a high availability network? (Choose two.)

- A. Faults seldom occur.
- B. Services can be quickly restored when a fault occurs.
- C. Faults never occur.
- D. Services can only be manually restored when a fault occurs.

**Correct Answer: A, B**

**Section:**

**QUESTION 287**

Which of the following statements about NSSA commands is false?

- A. If the default-route-advertise parameter is set, a Type-7 default route is generated.
- B. The no-import-route parameter is used to prevent the importing of AS external routes in the form of Type-7 LSAs into an NSSA.
- C. The no-summary parameter is used to prevent the advertisement of Type-3 and Type-4 LSAs in an area.
- D. The set-n-bit parameter indicates that an N-bit will be set in a DD packet.

**Correct Answer: A**

**Section:**

**QUESTION 288**

Which of the following Statement is false?

```
[RTA]display ospf peer
OSPF Process 1 with Router ID 1.1.1.1
Neighbors
Area 0.0.0.0 interface 10.1.1.1(Ethernet0/0)'s neighbor(s)
Router ID: 2.2.2.2   Address: 10.1.1.2
State: Full Mode: Nbr is Master Priority: 1
DR: 10.1.1.1 BDR: 10.1.1.2
Dead timer expires in 35s
Neighbor has been up for 04:35:02
```

- A. The OSPF Router ID of the local router is 1.1.1.1.
- B. The OSPF Router ID of the neighbor is 2.2.2.2.
- C. The OSPF Router ID of the neighbor is larger and thus the neighbor acts as a DR.
- D. The local router acts as slave.

**Correct Answer: C**

**Section:**

**QUESTION 289**

One class B network 155.16.0.0, the mask is 255.255.255.192. then subnet quantity available is ( ), the host quantity in every subnet at most is ( )

- A. 512126



- B. 102464
- C. 102462
- D. 256254
- E. 192254

**Correct Answer: C**

**Section:**

**QUESTION 290**

The NBMA mode requires all the routers in the network to be fully connected; otherwise, it does not function.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 291**

Which of the following statements about the BFD echo function are true? (Choose three.)

- A. The local system sends a series of BFD Echo packets, and the remote system loops the packets back through its forwarding channel.
- B. If the local system receives several consecutive Echo packets, it advertises a session Down event.
- C. The echo function can work together with the asynchronous or demand detection mode.
- D. The echo function can take the place of fault detection by sending BFD control packets.

**Correct Answer: A, C, D**

**Section:**

**QUESTION 292**

Which of the following statements about VLSM characteristics are true? (Choose two.)

- A. VLSM supports both IPv4 and IPv6.
- B. VLSM supports overlapped address ranges.
- C. VLSM provides more proper route summarization information in the routing table.
- D. VLSM allows a subnet to be divided into smaller subnets.

**Correct Answer: C, D**

**Section:**

**QUESTION 293**

Which of the following statements about the BFD demand mode are true? (Choose two.)

- A. The local system periodically sends BFD control packets, and the remote system detects the BFD control packets sent from the local system.
- B. The local system detects the BFD control packets sent by itself.
- C. If one system does not receive any BFD packets from its peer within a detection period, it advertises a session Down event.
- D. Each system confirms its connections with other systems in a particular method. After a BFD session is set up, BFD control packets are no longer sent.

**Correct Answer: B, D**

**Section:**

**QUESTION 294**

Different types of networks cannot establish an adjacency in the Full state.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 295**

A Class C network needs to be divided into five subnets and each subnet needs to contain a maximum of 20 hosts. Which of the following subnet masks is used?

- A. 255.255.255.192
- B. 255.255.255.240
- C. 255.255.255.224
- D. 255.255.255.248

**Correct Answer: C**

**Section:**

**QUESTION 296**

How many Class C networks does the summarized route 192.168.134.0/22 cover?

- A. 2
- B. 4
- C. 8
- D. 16

**Correct Answer: B**

**Section:**

**QUESTION 297**

When two routers exchange LSDB information by exchanging DD packets, a master/slave relationship is established between the two routers. The router with a larger router ID is the master.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 298**

The subnet mask of a class A address is 255.255.240.0, how many bits are used to divide subnet?

- A. 4



- B. 5
- C. 9
- D. 12

**Correct Answer: D**

**Section:**

**QUESTION 299**

In VRP 5.7, which of the following dynamic protocols support GR? (Choose three.)

- A. MPLS LDP/RSVP
- B. IS-IS/OSPF
- C. BGP
- D. MSTP

**Correct Answer: A, B, C**

**Section:**

**QUESTION 300**

Which of the following address types are reserved for multicast use?

- A. Class A
- B. Class B
- C. Class E
- D. Class D

**Correct Answer: D**

**Section:**

**QUESTION 301**

Which of the following messages exist only in PIM-SM? (Choose two.)

- A. Join/Prune
- B. Assert
- C. Bootstrap
- D. Register

**Correct Answer: C, D**

**Section:**

**QUESTION 302**

By default, the cost of an OSPF interface is related to interface bandwidth. The algorithm for calculating the cost is: bandwidth-reference/bandwidth.

- A. True
- B. False

**Correct Answer: A**



**Section:**

**QUESTION 303**

Which statements about OSPF packets are true? (Choose three.)

- A. Hello packets can be sent after OSPF is enabled on an interface.
- B. LS Request packets are sent only after an adjacency is established.
- C. LS Update packets contain detailed LSA information for LSDB synchronization.
- D. LS Update packets are sent only after an adjacency is established.

**Correct Answer: A, B, C**

**Section:**

**QUESTION 304**

How many hosts are available per subnet if apply a /21 mask to the class B network?

- A. 510
- B. 512
- C. 1022
- D. 2046

**Correct Answer: D**

**Section:**

**QUESTION 305**

OSPF supports the combination of a group of network segments. Such a group is also called an area. In other words, an area is a set of network segments.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 306**

Which of the following statements about route summary are true? (Choose two.)

- A. Advertise is the default parameter of the abr-summary command. If neither advertise nor not-advertise is specified in the abr-summary command, advertise is used.
- B. Not-advertise is the default parameter of the abr-summary command. If neither advertise nor not-advertise is specified in the abr-summary command, not-advertise is used.
- C. The abr-summary command is run in the OSPF view.
- D. The asbr-summary command is run in the OSPF view.

**Correct Answer: A, D**

**Section:**

**QUESTION 307**

Which of the following statements about a Smart Link group are true? (Choose three.)



- A. Smart Link group consists of a maximum of two interfaces. Where there are two interfaces, one is an active interface, and the other a standby interface.
- B. Of the two interfaces in a Smart Link group, one is active, and the other is standby.
- C. When an active interface goes Down, the Smart Link group automatically blocks it and changes the status of the standby interface to active.
- D. When an active interface recovers, the standby interface is blocked and traffic is switched back to the active interface.

**Correct Answer: A, B, C**

**Section:**

**QUESTION 308**

Which of the following statements are correct regarding how OSPF detects old and duplicate LSAs? (Choose three.)

- A. The smaller the sequence number, the more recent the LSA.
- B. The smaller the LS age, the more recent the LSA.
- C. When router generates a new LSA at the first time, it will use 0x80000001 as the sequence number.
- D. An LSA can be flushed from routing domain by setting its LSA age to Maxage.

**Correct Answer: B, C, D**

**Section:**

**QUESTION 309**

Which of the following statements is false?

- A. A Router-LSA is used to describe the local link status information of a router.
- B. A Network-LSA is used to describe the link status information of a broadcast network or an NBMA network segment.
- C. A virtual link is a virtual adjacency in the backbone area (Area 0).
- D. An AS-External-LSA describes how to reach an ASBR.

**Correct Answer: D**

**Section:**

**QUESTION 310**

What is the network address for 190.233.27.13/16?

- A. 190.0.0.0
- B. 190.233.0.0
- C. 190.233.27.0
- D. 190.233.27.1

**Correct Answer: B**

**Section:**

**QUESTION 311**

Which of the following statements about BFD control packets are true? (Choose three.)

- A. A BFD control packet is encapsulated in a UDP packet for transmission. Authentication fields in a BFD control packet are optional.
- B. BFD detection is not available in VRP 5.7.
- C. Echo packets use UDP destination port number 3784.



D. Echo packets use UDP destination port number 3785.

**Correct Answer: A, B, C**

**Section:**

**QUESTION 312**

Which of the following elements together uniquely identify a LSA? (Choose three.)

- A. LS type
- B. Link state ID
- C. Advertising Router
- D. LS Sequence number

**Correct Answer: A, B, C**

**Section:**

**QUESTION 313**

The address space 172.28.100.0/24 is currently used. If the subnet mask 172.28.100.0/30 is used to divide this address space into several subnets serving WAN links, how many subnets in total can the address space be divided into?

- A. 30
- B. 64
- C. 126
- D. 254

**Correct Answer: B**

**Section:**

**QUESTION 314**

An OSPF neighbor relationship fails to be established and the display ospf error command output is as follows.



```

[RTB]display ospf error
      OSPF Process 1 with Router ID 2.2.2.2
      OSPF error statistics:
General packet errors:
0  : IP: received my own packet      0  : Bad packet
0  : Bad version                    0  : Bad checksum
7  : Bad area id                    0  : Drop on unnumbered interface
0  : Bad virtual link               0  : Bad authentication type
0  : Bad authentication key         0  : Packet too small
0  : Packet size>ip length          0  : Transmit error
0  : Interface down                 0  : Unknown neighbor
HELLO packet errors:
0  : Netmask mismatch               0  : Hello timer mismatch
0  : Dead timer mismatch            0  : Extern option mismatch
9  : Router id confusion            0  : Virtual neighbor unknown
0  : NBMA neighbor unknown
DD packet errors:
0  : Neighbor state low              0  : Router id confusion
0  : Extern option mismatch         0  : Unknown LSA type
0  : MTU option mismatch
LS ACK packet errors:
0  : Neighbor state low              0  : Bad ack
0  : Duplicate ack                  0  : Unknown LSA type
LS REQ packet errors:
0  : Neighbor state low              0  : Empty request
0  : Bad request
LS UPD packet errors:
0  : Neighbor state low              0  : Newer self-generate LSA
0  : LSA checksum bad                0  : Received less recent LSA
0  : Unknown LSA type
Opaque errors:
0  : 9-out of flooding scope         0  : 10-out of flooding scope
0  : 11-out of flooding scope
Retransmission for packet over Limitation errors:
0  : Number for DD Packet            0  : Number for Update Packet
0  : Number for Request Packet
Receive Grace LSA errors:
0  : Number of invalid LSAs          0  : Number of policy failed LSAs
0  : Number of wrong period LSAs
Configuration errors:
0  : Tunnel cost mistake
0  : The network type of the neighboring interface is not consistent

```



Which of the following is the possible cause?

- A. Router IDs conflict.
- B. Area IDs are mismatched.
- C. Network masks are inconsistent.
- D. Authentication types are inconsistent.

**Correct Answer: C**

**Section:**

**QUESTION 315**

OSPF supports two authentication modes: area authentication and interface authentication. The two authentication modes cannot be configured at the same time.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 316**

A Router ID is optional in the OSPF configuration.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 317**

Which statement about OSPF is false?

- A. Hello packets are used to discover and maintain neighbor relationships. On a broadcast network or an NBMA network, Hello packets can also be used to elect a DR and a BDR.
- B. DD packets describe summary LSDB information by carrying LSA headers.
- C. The intervals at which two routers send Hello packets must be consistent; otherwise, a neighbor relationship cannot be established between them.
- D. DD packets contain headers of all LSAs for periodic LSDB synchronization between OSPF neighbors.

**Correct Answer: D**

**Section:**

**QUESTION 318**

A device can be assigned an IP address 192.168.13.175, with the mask being 255.255.255.240.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 319**

Which of the following statements about OSPF authentication are false? (Choose two.)

- A. Entering a password in cipher text is allowed.
- B. The ospf authentication-mode md5 1 huawei command and the ospf authentication-mode md5 1 plain huawei command have the same function.
- C. If passwords are configured for both an area and an interface, the password configured for the area is used.
- D. The ospf authentication-mode simple huawei command and the ospf authentication-mode simple plain Huawei command have the same function.

**Correct Answer: B, C**

**Section:**

**QUESTION 320**

Which of the following rules should a network administrator obey when the network administrator uses the VLSM technology to plan subnets? (Choose three.)

- A. A subnet is composed of all summarized routes.
- B. A subnet can address a host or be further subnetted.
- C. The Update message of a routing protocol in use must carry subnet mask information.
- D. The summarized networks must have the same high-order bit.

**Correct Answer: B, C, D**

**Section:**

**QUESTION 321**

For network segment 192.168.2.16/28, how many hosts it can hold at most?

- A. 16
- B. 8
- C. 15
- D. 14
- E. 7

**Correct Answer: D**

**Section:**

**QUESTION 322**

Which of the following addresses can be used on a public network? (Choose two.)

- A. 172.30.0.1/16
- B. 127.254.11.15/16
- C. 172.15.12.7/16
- D. 193.168.10.4/16

**Correct Answer: C, D**

**Section:**

**QUESTION 323**

Different network segments can be in the same OSPF area and the same network segment can be in different OSPF areas.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 324**



What is the maximum bits of a Class B address can be used for subnet?

- A. 8
- B. 14
- C. 16
- D. 22

**Correct Answer: B**

**Section:**

**QUESTION 325**

A company reserves the network segment 172.29.100.0/26 for some remote small-scale sites and each site has 5 IP devices to connect to this network segment.

Which of the following VLSM masks can be used to provide minimum number of hosts to meet such a requirement?

- A. /27
- B. /28
- C. /29
- D. /30

**Correct Answer: C**

**Section:**

**QUESTION 326**

Which of the following network or link type is not the basic network or link type defined in OSPF?

- A. P2P
- B. P2MP
- C. Broadcast
- D. Virtual link

**Correct Answer: D**

**Section:**

**QUESTION 327**

An OSPF neighbor relationship fails to be established and the display ospf error command output is as follows.



```

[RTB]display ospf error
      OSPF Process 1 with Router ID 2.2.2.2
      OSPF error statistics:
General packet errors:
0  : IP: received my own packet      0  : Bad packet
0  : Bad version                     0  : Bad checksum
0  : Bad area id                    0  : Drop on unnumbered interface
0  : Bad virtual link                0  : Bad authentication type
3  : Bad authentication key          0  : Packet too small
0  : Packet size>ip length           0  : Transmit error
0  : Interface down                 0  : Unknown neighbor
HELLO packet errors:
0  : Netmask mismatch                0  : Hello timer mismatch
0  : Dead timer mismatch             0  : Extern option mismatch
0  : Router id confusion             0  : Virtual neighbor unknown
0  : NBMA neighbor unknown
DD packet errors:
0  : Neighbor state low              0  : Router id confusion
0  : Extern option mismatch          0  : Unknown LSA type
0  : MTU option mismatch
LS ACK packet errors:
0  : Neighbor state low              0  : Bad ack
0  : Duplicate ack                  0  : Unknown LSA type
LS REQ packet errors:
0  : Neighbor state low              0  : Empty request
0  : Bad request
LS UPD packet errors:
0  : Neighbor state low              0  : Newer self-generate LSA
0  : LSA checksum bad                0  : Received less recent LSA
0  : Unknown LSA type
Opaque errors:
0  : 9-out of flooding scope         0  : 10-out of flooding scope
0  : 11-out of flooding scope
Retransmission for packet over Limitation errors:
0  : Number for DD Packet             0  : Number for Update Packet
0  : Number for Request Packet
Receive Grace LSA errors:
0  : Number of invalid LSAs          0  : Number of policy failed LSAs
0  : Number of wrong period LSAs
Configuration errors:
0  : Tunnel cost mistake
0  : The network type of the neighboring interface is not consistent

```



Which of the following is the possible cause?

- A. Router IDs conflict.
- B. Area IDs are mismatched.
- C. Network masks are inconsistent.
- D. Authentication types are inconsistent.

**Correct Answer: D**



**Section:**

**QUESTION 328**

Which of the following statements about LACP are true? (Choose two.)

- A. It complies with IEEE 802.3az.
- B. A device enabled with LACP exchanges Link Aggregation Control Protocol Data Units (LACPDUs) with its peer.
- C. Devices at both ends determine the active interface according to the interface priority of the active device.

**Correct Answer: B, C**

**Section:**

**QUESTION 329**

Which of the following are end-to-end link protection modes? (Choose three.)

- A. 1: 1
- B. M: N
- C. N: 1
- D. 1+1

**Correct Answer: A, B, D**

**Section:**

**QUESTION 330**

An OSPF neighbor relationship fails to be established and the display ospf error command output is as follows.



```

[RTB]display ospf error
      OSPF Process 1 with Router ID 2.2.2.2
      OSPF error statistics:
General packet errors:
0  : IP: received my own packet      0  : Bad packet
0  : Bad version                     0  : Bad checksum
10 : Bad area id                    0  : Drop on unnumbered interface
0  : Bad virtual link               0  : Bad authentication type
0  : Bad authentication key         0  : Packet too small
0  : Packet size>ip length          0  : Transmit error
0  : Interface down                 0  : Unknown neighbor
HELLO packet errors:
0  : Netmask mismatch               0  : Hello timer mismatch
0  : Dead timer mismatch            0  : Extern option mismatch
0  : Router id confusion            0  : Virtual neighbor unknown
0  : NBMA neighbor unknown
DD packet errors:
0  : Neighbor state low              0  : Router id confusion
0  : Extern option mismatch          0  : Unknown LSA type
0  : MTU option mismatch
LS ACK packet errors:
0  : Neighbor state low              0  : Bad ack
0  : Duplicate ack                  0  : Unknown LSA type
LS REQ packet errors:
0  : Neighbor state low              0  : Empty request
0  : Bad request
LS UPD packet errors:
0  : Neighbor state low              0  : Newer self-generate LSA
0  : LSA checksum bad               0  : Received less recent LSA
0  : Unknown LSA type
Opaque errors:
0  : 9-out of flooding scope         0  : 10-out of flooding scope
0  : 11-out of flooding scope
Retransmission for packet over Limitation errors:
0  : Number for DD Packet            0  : Number for Update Packet
0  : Number for Request Packet
Receive Grace LSA errors:
0  : Number of invalid LSAs          0  : Number of policy failed LSAs
0  : Number of wrong period LSAs
Configuration errors:
0  : Tunnel cost mistake
0  : The network type of the neighboring interface is not consistent

```



Which of the following is the possible cause?

- A. Router IDs conflict.
- B. Area IDs are mismatched.
- C. Network masks are inconsistent.
- D. Authentication types are inconsistent.

**Correct Answer: A**



**Section:**

**QUESTION 331**

Which of the following statements about BFD Echo packets are true? (Choose two.)

- A. The Echo packet format is not defined in BFD.
- B. The Echo packet format is defined in BFD.
- C. Echo packets use UDP destination port number 3785.
- D. Echo packets use UDP destination port number 3784.

**Correct Answer: A, C**

**Section:**

**QUESTION 332**

An OSPF neighbor relationship fails to be established and the display ospf error command output is as follows.



```

[RTB]display ospf error
      OSPF Process 1 with Router ID 2.2.2.2
      OSPF error statistics:
General packet errors:
0  : IP: received my own packet      0  : Bad packet
0  : Bad version                    0  : Bad checksum
0  : Bad area id                    0  : Drop on unnumbered interface
0  : Bad virtual link               0  : Bad authentication type
0  : Bad authentication key         0  : Packet too small
0  : Packet size>ip length          0  : Transmit error
0  : Interface down                 0  : Unknown neighbor
HELLO packet errors:
0  : Netmask mismatch               0  : Hello timer mismatch
0  : Dead timer mismatch            0  : Extern option mismatch
0  : Router id confusion            0  : Virtual neighbor unknown
0  : NBMA neighbor unknown
DD packet errors:
0  : Neighbor state low              0  : Router id confusion
0  : Extern option mismatch          0  : Unknown LSA type
0  : MTU option mismatch
LS ACK packet errors:
0  : Neighbor state low              0  : Bad ack
0  : Duplicate ack                  0  : Unknown LSA type
LS REQ packet errors:
0  : Neighbor state low              0  : Empty request
0  : Bad request
LS UPD packet errors:
0  : Neighbor state low              0  : Newer self-generate LSA
0  : LSA checksum bad               0  : Received less recent LSA
0  : Unknown LSA type
Opaque errors:
0  : 9-out of flooding scope        0  : 10-out of flooding scope
0  : 11-out of flooding scope
Retransmission for packet over Limitation errors:
0  : Number for DD Packet            0  : Number for Update Packet
0  : Number for Request Packet
Receive Grace LSA errors:
0  : Number of invalid LSAs         0  : Number of policy failed LSAs
0  : Number of wrong period LSAs
Configuration errors:
0  : Tunnel cost mistake
0  : The network type of the neighboring interface is not consistent

```



Which of the following is the possible cause?

- A. Router IDs conflict.
- B. Area IDs are mismatched.
- C. Network masks are inconsistent.
- D. Authentication passwords are inconsistent.

**Correct Answer: D**

**Section:**

**QUESTION 333**

ABRs of a Stub area do not flood Type-5 and Type-4 LSAs to the Stub area. Therefore, the Stub area does not have the external AS routing capability. ABRs of the Stub area advertise a default route to the stub area to guide packet forwarding to the external of the AS.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 334**

Assume that the subnet mask is 255.255.255.248. Which of the following addresses are valid host addresses? (Choose three.)

- A. 192.168.200.87
- B. 196.123.142.190
- C. 223.168.210.100
- D. 220.100.100.154

**Correct Answer: B, C, D**

**Section:**

**QUESTION 335**

Which of the following statements is false?

- A. An ABR maintains an LSDB for each area. There are many LSDBs on an ABR.
- B. The metric of an ASE LSA can be specified when an external route is imported. The default value is 1.
- C. The external routing information carries a Tag label for transmitting additional information of the route. It is commonly used in a routing policy. The default value of the Tag label is 0.
- D. The Link State ID in an ASBR-Summary-LSA is the Router ID of the ASBR.

**Correct Answer: C**

**Section:**

**QUESTION 336**

If the Router Priority of a router is set to 0, this router cannot be elected as a DR or a BDR.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 337**

Only Router-LSAs and Network-LSAs are involved in intra-area route calculations.

- A. True
- B. False

**Correct Answer: A**



**Section:**

**QUESTION 338**

Which of the following statements about Flush packets in a Smart Link group are true? (Choose three.)

- A. A Smart Link group sends Flush packets to instruct other devices to update the address table.
- B. Flush packets use IEEE 802.3 encapsulation.
- C. The destination MAC address of Flush packets is an unknown unicast address, which is used to distinguish protocols.
- D. The destination MAC address of Flush packets is a special multicast address, which is used to distinguish protocols.

**Correct Answer: A, B, C**

**Section:**

**QUESTION 339**

Which of the following statements about Stub areas is false?

- A. The difference between a Stub area and a Totally Stubby area is that the Totally Stubby area cannot contain summary-LSAs.
- B. The ABR in the Stub area generates a default route to guide forwarding of packets destined for other area.
- C. A Transit area cannot be configured as a Stub area.
- D. Any Stub area can be configured as a Totally Stubby area.

**Correct Answer: A**

**Section:**

**QUESTION 340**

Each router running OSPF has a router ID. A router ID is a 32-bit integer and uniquely identifies a router. Hence, even of routers in different ASs, the router IDs must be different.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 341**

Which of the following statements about link aggregation are true? (Choose three.)

- A. Link aggregation can be performed in manual load balancing or LACP mode. In manual loading balancing mode, LACP is enabled; in LACP mode, LACP is enabled too.
- B. In manual load balancing mode, all active member interfaces forward data and perform load balancing.
- C. In static LACP mode, the creation of the Eth-Trunk and the addition of member interfaces to the Eth-Trunk are performed manually. Compared with link aggregation in manual load balancing mode, active interfaces in static LACP mode are selected by sending LACP Data Units (LACPDU).
- D. In dynamic LACP mode, the creation of the Eth-Trunk, the addition of member interfaces, and the selection of active interfaces are performed based on LACP negotiation.

**Correct Answer: B, C, D**

**Section:**

**QUESTION 342**

Which of the following can speed up OSPF fast convergence? (Choose two.)



- A. Configuring dynamic BFD for OSPF
- B. Adjusting the interval at which OSPF calculation is performed
- C. Configuring the interval at which an LSA are retransmitted
- D. Configuring the maximum number of external LSAs in the LSDB

**Correct Answer: A, B**

**Section:**

**QUESTION 343**

Which of the attributes must exist in the BGP Update messages? (Choose three.)

- A. LOCAL\_PREF
- B. NEXT\_HOP
- C. ORIGIN
- D. AS\_PATH

**Correct Answer: B, C, D**

**Section:**

**QUESTION 344**

Which of the following LSAs are flooded within a single area? (Choose three.)

- A. Router LSA
- B. Network LSA
- C. Summary LSA
- D. AS External LSA

**Correct Answer: A, B, C**

**Section:**

**QUESTION 345**

BGP peers are automatically discovered by exchanging multicast packets.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 346**

Which statements about the Local-Preference attribute are true? (Choose two.)

- A. Based on BGP route selection rules, the Local-Preference attribute has a lower priority than the Preferred-Value attribute. This means that BGP compares Local-Preference attributes of routes after comparing Preferred-Value attributes of them.
- B. The Local-Preference attribute of a BGP route defaults to 0.
- C. The Local-Preference attribute is used to select an exit point from the local AS for data flows.



D. Based on BGP route selection rules, the Local-Preference attribute has a lower priority than the MED attribute. This means that BGP compares Local-Preference attributes of routes after comparing MED attributes of them.

**Correct Answer: A, C**

**Section:**

**QUESTION 347**

The ABR of an NSSA will not advertise Type-4 and Type-5 LSAs to an NSSA but can import external routes into the NSSA.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 348**

In transit AS, why do core routers run BGP?

- A. Eliminate route loops
- B. Ensure data packets can be transmitted to the external destination addresses
- C. Optimize network within an AS
- D. Ensure only one export

**Correct Answer: B**

**Section:**



**QUESTION 349**

Which command can trigger the advertisement of BGP routes without interrupting a BGP connection?

- A. Reset bgp
- B. Refresh bgp all external
- C. Refresh bgp all internal
- D. RR-filter

**Correct Answer: B**

**Section:**

**QUESTION 350**

Which of the following BGP filters can be used to set route attributes?

- A. Ip-prefix
- B. Route-policy
- C. As-path-filer
- D. Community-filter

**Correct Answer: B**

**Section:**

**QUESTION 351**

A BGP finite state machine has the following states:

Active  
OpenConfirm  
Idle  
Establish  
OpenSent

What is the state transition sequence in which the BGP peer relationship is established?

- A. Idle-OpenSent-OpenConfirmActive-Establish
- B. Idle-Active-OpenSent-OpenConfirm-Establish
- C. Active-Idle-OpenSent-OpenConfirm-Establish
- D. Idle-Active-OpenConfirm-OpenSent-Establish

**Correct Answer: B**

**Section:**

**QUESTION 352**

Which of the BGP attributes will not be advertised to other neighbor AS?

- A. LOCAL\_PREF
- B. AS\_PATH
- C. COMMUNITY
- D. ORIGIN

**Correct Answer: A**

**Section:**

**QUESTION 353**

Which statements about BGP route advertisement are true? (Choose two.)

- A. All BGP routes learned from BGP peers are advertised to other BGP peers.
- B. Only the routes learned from an IGP are advertised to other BGP peers.
- C. By default, the routes learned from IBGP peers are not advertised to other IBGP peers.
- D. Only the optimal routes are advertised to other BGP peers.

**Correct Answer: C, D**

**Section:**

**QUESTION 354**

An Autonomous System (AS) is a set of routers under a single technical administration, using the same routing policy.

- A. True
- B. False

**Correct Answer: A**

**Section:**



**QUESTION 355**

Which statements about the AS number range are true? (Choose three.)

- A. If 2-byte AS numbers are supported, a private AS number ranges from 32768 to 65535.
- B. If 2-byte AS numbers are supported, a private AS number ranges from 64512 to 65535.
- C. If 2-byte AS numbers are supported, an AS number ranges from 1 to 65535.
- D. If 4-byte AS numbers are supported, a 4-byte AS number is in the x.y format. Here, "x" and "y" are integers ranging from 1 to 65535 and 0 to 65535 respectively.

**Correct Answer: B, C, D**

**Section:**

**QUESTION 356**

Which BGP attributes are optional in a BGP Update packet? (Choose two.)

- A. Origin
- B. Nexthop
- C. Local-Preference
- D. MED

**Correct Answer: C, D**

**Section:**

**QUESTION 357**

BGP is an exterior gateway protocol which runs among ASs. It focuses on routes control and selection of optimal routes rather than discovery and calculation of routes.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 358**

When a TCP connection works properly, what is the status of the BGP peer relationship if the peer AS number configured for a BGP router is inconsistent with the AS number of its BGP peer?

- A. Idle
- B. Active
- C. OpenSent
- D. Establish

**Correct Answer: B**

**Section:**

**QUESTION 359**

The BGP Community attribute is a well-known mandatory attribute.

- A. True
- B. False



**Correct Answer: B**

**Section:**

**QUESTION 360**

Which of the followings is used to avoid route loops in BGP?

- A. Use ORIGIN attribute to record route origin
- B. Use AS\_PATH attribute to record all ASs during a route passing from the local area to the destination in a certain order
- C. Use NEXT\_HOP attribute to record next hop of the route
- D. Use MED attribute to influence export selection of other AS

**Correct Answer: B**

**Section:**

**QUESTION 361**

Which BGP attribute is usually used to determine the path along which data flows enter an AS?

- A. Router ID
- B. Nexthop
- C. Local-Preference
- D. MED

**Correct Answer: D**

**Section:**

**QUESTION 362**

Which parameters are optional for configuring a BGP peer? (Choose two.)

- A. IP address
- B. Description
- C. Password
- D. AS-number

**Correct Answer: B, C**

**Section:**

**QUESTION 363**

Assume that a TCP connection works properly, and the peer AS number configured for a BGP router is different from the AS number of its BGP peer. During the establishment of a BGP session, the BGP router exchanges routing information with its peer, and finds that its peer AS number is different from the AS number of the peer. Therefore, the BGP router sends a Notification message to the peer, indicating that the establishment of a BGP session fails. Which message can be identified by the Error Code field in the Notification message?

- A. Route-refresh
- B. Open
- C. Keepalive
- D. Update

**Correct Answer: B**



**Section:**

**QUESTION 364**

Which statements about BGP well-known mandatory attributes are true? (Choose three.)

- A. Well-known mandatory attributes must be identified by all BGP routers.
- B. Well-known mandatory attributes must be transmitted between BGP peers.
- C. Well-known mandatory attributes are optional in an Update packet, and can be carried in an Update packet as needed.
- D. Well-known mandatory attributes must be carried in an Update packet.

**Correct Answer: A, B, D**

**Section:**

**QUESTION 365**

Which statements about BGP route selection rules are true? (Choose three.)

- A. BGP first ignores routes with unreachable next hops.
- B. A summarized route takes precedence over a non-summarized route.
- C. IBGP routes take precedence over EBGP routes.
- D. If other conditions of routes are the same, the route with the shortest Cluster\_List is preferred.

**Correct Answer: A, B, D**

**Section:**

**QUESTION 366**

Which of the following statements are correct regarding intra-area route calculation of OSPF? (Choose two.)

- A. Every OSPF router only uses one Router LSA to describe local active link state for one area.
- B. Every OSPF uses more than one Router LSA to describe local active link state for one area.
- C. One Router LSA only describes one link.
- D. One Router LSA describes more than one link.

**Correct Answer: A, D**

**Section:**

**QUESTION 367**

The import-route limit command is used to set the maximum number of external routes that can be imported into an OSPF process.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 368**

Which of the statements describes the way BGP update routes?



- A. Broadcasts all of the routes periodically
- B. Update all of the routes using multicast address periodically
- C. Only update the changed routes and the new routes
- D. Update routes when BGP peer requests

**Correct Answer: C**

**Section:**

**QUESTION 369**

Which of the following statements is false?

- A. Each OSPF router uses only one Router-LSA to describe the status of local links in an area.
- B. Link types described by a Router-LSA include P2P, P2MP, TransNet, and StubNet.
- C. A Network-Summary-LSA describes the metric of the route from an ABR to a destination network segment.
- D. Routing information can be exchanged between a backbone area and a non-backbone area but cannot be exchanged between two non-backbone areas.

**Correct Answer: B**

**Section:**

**QUESTION 370**

Which one of the statements describes the relationship between BGP and AS correctly?

- A. BGP only runs between ASs, and cannot run within an AS.
- B. BGP is an EGP running between ASs, and IGP runs within an AS such as OSPF, RIP and IS-IS.
- C. BGP builds up network topology by exchanging link-state information among Ass.
- D. BGP cannot run between Ass.



**Correct Answer: B**

**Section:**

**QUESTION 371**

Generally, the performance of an IP-prefix-filter is higher than that of an ACL.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 372**

An IP-prefix-filter is used to filter IP prefixes and data packets.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 373**

In BGP, which type of message is periodically exchanged between BGP peers to maintain a BGP peer relationship?

- A. Open
- B. Hello
- C. Route-refresh
- D. Keepalive

**Correct Answer: D**

**Section:**

**QUESTION 374**

In the VRP, by default, the routes imported by BGP are not automatically summarized.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 375**

Which type of BGP route will be added to the BGP routing table?

- A. All BGP routes learned from peers
- B. Only the routes learned from IBGP peers
- C. Only the routes learned from EBGP peers
- D. Only optimal routes

**Correct Answer: A**

**Section:**

**QUESTION 376**

An ACL is used to match routing information or data packet addresses so as to filter out the unmatched routing information or data packets.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 377**

Which of the following BGP routing policies can be used to filter routes? (Choose two.)

- A. Ip-prefix
- B. Reflect-client
- C. Route-policy
- D. Next-hop-local



**Correct Answer: A, C**

**Section:**

**QUESTION 378**

Which statements about the MED attribute are true? (Choose three.)

- A. Based on BGP route selection rules, the MED attribute takes precedence over the AS\_Path, Preferred-Value, Local-Preference, and Origin attributes.
- B. The MED attribute of a BGP route defaults to 100.
- C. By default, BGP compares MED attributes of only the routes from the same AS. If the compare-different-as-med command is configured, BGP can compare the MED attributes of the routes from different ASs.
- D. By default, if the MED value of a BGP route is not specified, the value 0 is used. If the bestroute med-none-as-maximum command is configured, the maximum MED value 4294967295 is used.

**Correct Answer: A, C, D**

**Section:**

**QUESTION 379**

Once a BGP connection is established, a BGP Speaker advertises all the optimal routes in the BGP routing table to its BGP peer.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 380**

Based on BGP route selection rules, a local route that is automatically summarized takes precedence over a local route that is manually summarized.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 381**

Which method is used to establish session between the BGP peers?

- A. Telnet
- B. Send Hello packet
- C. UDP
- D. TCP

**Correct Answer: D**

**Section:**

**QUESTION 382**

Which of the following statements are correct regarding BGP attribute? (Choose two.)

- A. Till now, there are 16 BGP attributes



- B. BGP attribute can be extended to 256 types
- C. Well-known discretionary attribute may not be included in each BGP update message, such as Origin attribute
- D. AS\_PATH is an Optional Transitive attribute

**Correct Answer: A, B**

**Section:**

**QUESTION 383**

In a route-policy, which BGP attributes can be invoked by if-match clauses? (Choose three.)

- A. Local-Preference
- B. AS-Path
- C. MED
- D. Community

**Correct Answer: B, C, D**

**Section:**

**QUESTION 384**

Based on BGP route selection rules, the route with the lowest Local-Preference is preferred.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 385**

In a route-policy, which BGP attributes can be used to define apply clauses? (Choose three.)

- A. Local-Preference
- B. Tag
- C. Origin
- D. AS-Path

**Correct Answer: A, C, D**

**Section:**

**QUESTION 386**

What is the function of well-known community attribute NO\_EXPORT\_SUBCONFED in BGP?

- A. Routes received carrying this value cannot be advertised outside the confederation
- B. Routes received carrying this value cannot be advertised to any BGP peers
- C. Routes received carrying this value cannot be advertised to any EBGP peers
- D. All above statements are wrong

**Correct Answer: C**



**Section:**

**QUESTION 387**

The system can perform ACL rule matching only based on the configuration order of rules.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 388**

If different routing protocols run on different networks and these networks need to share routing information, route importing can be used.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 389**

If the peer default-route-advertise command is used to advertise a default BGP route to peers, how will this operation affect the local BGP routing table?

- A. An inactive default route will be generated in the local BGP routing table and this route will not be delivered to the IP routing table.
- B. An active default route will be generated in the local BGP routing table and this route will be delivered to the IP routing table.
- C. The local BGP routing table will not be affected and no default route will be generated in the local BGP routing table.
- D. A default route will be generated in the local BGP routing table and whether to deliver this route to the IP routing table depends on route selection results.

**Correct Answer: C**

**Section:**

**QUESTION 390**

Which of the following technologies can reduce the scale of broadcast domain?

- A. VLAN
- B. Trunk
- C. RARP
- D. STP

**Correct Answer: A**

**Section:**

**QUESTION 391**

Which of the following are multicast routing protocols? (Choose three.)

- A. DVMRP
- B. PIM-DM

- C. F OSPF
- D. F PIM-SM

**Correct Answer: A, B, D**

**Section:**

**QUESTION 392**

Which switching technology reduces the size of broadcast domain?

- A. VLAN
- B. Trunk
- C. RARP
- D. STP

**Correct Answer: A**

**Section:**

**QUESTION 393**

According to the OSI reference model, Layer 2 LAN switch operates at Q.

- A. physical layer
- B. data link layer
- C. network layer
- D. application layer

**Correct Answer: B**

**Section:**

**QUESTION 394**

Layer 3 switch has layer 2 capability as well as layer 3 routing capability.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 395**

The default-route originate command in the RIP protocol is used to advertise a default RIP route to peers. By using this command, which of the following attributes can be set for the default route?

- A. Tag
- B. Cost
- C. Interface
- D. Nexthop

**Correct Answer: B**

**Section:**





**QUESTION 396**

Which of the following route selection tools is used in multiple routing protocols, can be configured with match conditions, and consists of if-match and apply clauses?

- A. AS-path-filter
- B. IP-prefix
- C. Route-policy
- D. Community-filter

**Correct Answer: C**

**Section:**

**QUESTION 397**

You cannot set an aging time for the blacklist of the USG.

- A. TRUE
- B. FALSE

**Correct Answer: B**

**Section:**

**QUESTION 398**

Which of the following routes match this ACL filter? (Choose two.)

```
"acl number 2001
rule 0 permit source 1.1.1.0 0.0.254.255"
```

- A. 1.1.1.1/32
- B. 1.1.2.1/32
- C. 1.1.3.1/32
- D. 1.1.4.1/32

**Correct Answer: A, C**

**Section:**

**QUESTION 399**

OSPF supports two authentication modes: area authentication and interface authentication. These two modes cannot be configured at the same time.

- A. TRUE
- B. FALSE

**Correct Answer: B**

**Section:**

**QUESTION 400**

Which of the following statements is false?

- A. A Router-LSA describes the local link state information of a router.
- B. A Network-LSA describes the link state information of a broadcast network or an NBMA network segment.



- C. A virtual link is a virtual adjacency in the backbone area (Area 0).
- D. An AS-external-ISA describes the means to reach an ASBR.

**Correct Answer: D**

**Section:**

**QUESTION 401**

Which of the following statements about the Reverse Path Forwarding (RPF) mechanism are true? (Choose two.)

- A. Multicast RPF does not depend on unicast routing.
- B. All multicast protocols adopt the RPF mechanism.
- C. A router discards the received multicast packets if the packets fail the RPF check.
- D. The RPF mechanism has two functions: 1. It prevents multicast routing loops; 2. It avoids forwarding redundant multicast data packets.

**Correct Answer: C, D**

**Section:**

**QUESTION 402**

What are the functions of route filtering? (Choose three.)

- A. Avoids sub-optimal routes generated in route importing.
- B. Avoids routing loops.
- C. Affects route selection by changing route attributes.
- D. Implements accurate route importing and controls route advertisement.

**Correct Answer: A, B, D**

**Section:**

**QUESTION 403**

The preceding information is generated after a router receives a Report message from group 225.0.0.1 through Ethernet 6/1/0.

```
<Quidway>dis igmp group verbose
IGMP interface group report information
Ethernet6/1/0(10.1.1.1):
Total 1 IGMP Group reported
Group: 225.0.0.1
Uptime: 00:09:03
Expires: 00:02:09
Last reporter: 10.1.1.30
Last-member-query-counter: 0
Last-member-query-timer-expiry: off
Group mode: exclude
Version1-host-present-timer-expiry: off
Version2-host-present-timer-expiry: 00:02:09
```

Which type of Report message will not be processed by the router?

- A. IS\_IN



- B. ALLOW
- C. BLOCK
- D. TO\_IN

**Correct Answer: C**

**Section:**

**QUESTION 404**

Which of the following attacks are prevented after an IP address and MAC address are bound on the USG? (Choose two.)

- A. IP address spoofing
- B. MAC address spoofing
- C. DoS attack
- D. DDoS attack

**Correct Answer: A, B**

**Section:**

**QUESTION 405**

An IP network can provide various packet forwarding services. Users are concerned about which of the following during packet forwarding? (Choose three.)

- A. Throughput
- B. Delay
- C. Cost
- D. Loss of packet

**Correct Answer: A, B, D**

**Section:**

**QUESTION 406**

How many hosts are available per subnet if you apply a /21 mask to the class B network?

- A. 510
- B. 512
- C. 1022
- D. 2046

**Correct Answer: D**

**Section:**

**QUESTION 407**

Which of the following route selection mechanisms can adopt user-defined policies to determine data forwarding paths flexibly based on ACLs or packet lengths?

- A. AS-path-filter
- B. IP-prefix
- C. Route-policy
- D. Policy-based-route



**Correct Answer: D**

**Section:**

**QUESTION 408**

What are the functions of an IGMPv2 Query message? (Choose three.)

- A. A router sends IGMPv2 Query messages to collect group memberships of receiver hosts.
- B. A router sends IGMPv2 Query messages to elect a querier.
- C. If a router can periodically send IGMPv2 Query messages, it indicates that the router runs properly.
- D. Based on IGMPv2 Query messages, receiver hosts can obtain the address of a querier and unicast Report messages to the querier.

**Correct Answer: A, B, C**

**Section:**

**QUESTION 409**

What are the differences between the IGMP versions? (Choose two.)

- A. IGMPv1/v2 cannot elect queriers but IGMPv3 can.
- B. In IGMPv2/v3, members can actively leave groups, whereas in IGMPv1 members cannot actively leave groups.
- C. IGMPv1/v2 do not support the SSM model but IGMPv3 supports.
- D. IGMPv1/v2 do not support group-specific Query messages but IGMPv3 supports.

**Correct Answer: B, C**

**Section:**



**QUESTION 410**

What is the maximum number of bits that can be used for subnetting, when the network address is a Class C address?

- A. 6
- B. 8
- C. 12
- D. 14

**Correct Answer: A**

**Section:**

**QUESTION 411**

The most remarkable characteristic of OSPF is that it can support the link-state algorithm.

- A. TRUE
- B. FALSE

**Correct Answer: A**

**Section:**

**QUESTION 412**

Which of the following statements about multicast MAC addresses are true? (Choose three.)

- A. The high-order 24 bits of a multicast MAC address are 0x01005e and the low-order 23 bits of a multicast MAC address are the same as the low-order 23 bits of a multicast IP address.
- B. One multicast MAC address maps 32 IP multicast addresses.
- C. Multicast MAC addresses are used at the link layer to identify receivers that are in the same multicast group.
- D. One multicast MAC address maps only one IP multicast address.

**Correct Answer: A, B, C**

**Section:**

**QUESTION 413**

IGMP interface group report information Ethernet6/1/1(40.1.1.1):

```
Total 1 IGMP Group reported
Group: 232.0.0.1
Uptime: 00:00:22
Expires: off
Last reporter: 40.1.1.3
Last-member-query-counter: 0
Last-member-query-timer-expiry: off
Group mode: include
Version1-host-present-timer-expiry: off
Version2-host-present-timer-expiry: off
Source list:
Source: 20.1.1.56
Uptime: 00:00:22
Expires: 00:05:08
Last-member-query-counter: 3
Last-member-query-timer-expiry: 00:00:01
Source: 20.1.1.57
Uptime: 00:00:22
Expires: 00:00:17
Last-member-query-counter: 3
Last-member-query-timer-expiry: 00:00:01
```



The preceding information shows the entry status of an IGMP interface on Ethernet 6/1/1 on a router.

Assume IGMP sends the group-and-source-specific Query message. Which of the following statements is true?

- A. IGMP respectively sends two messages: The source carried in one of the messages is 20.1.1.56 with the S flag bit not set; the source carried in the other message is 20.1.1.57, with the S flag bit set to 1.
- B. IGMP respectively sends two messages: The source carried in one of the messages is 20.1.1.56 with the S flag bit set to 1; the source carried in the other message is 20.1.1.57, with the S flag bit not set.
- C. IGMP sends one message carrying two sources 20.1.1.56 and 20.1.1.57, with the S flag bit set to 1.
- D. IGMP sends one message carrying two sources 20.1.1.56 and 20.1.1.57, with the S flag bit not set.

**Correct Answer: B**

**Section:**

**QUESTION 414**

Which of the following route selection tools can be used in "multiple" routing protocols, be configured with matching conditions, and be composed of if-match and apply clauses?

- A. AS-path-filter
- B. IP-prefix
- C. Route-policy
- D. Community-filter

**Correct Answer: C**

**Section:**

**QUESTION 415**

Which of the following protocols support default route advertisement by using commands? (Choose three.)

- A. RIP
- B. OSPF
- C. BGP
- D. Static

**Correct Answer: A, B, C**

**Section:**

**QUESTION 416**

MPLS is a switching standard defined by the IETF. Which of the following devices exist on the MPLS network? (Choose two.)

- A. LSR
- B. LER
- C. Label distribution router
- D. Label transmit router

**Correct Answer: A, B**

**Section:**

**QUESTION 417**

An ACL is a series of orderly rules composed of permit | deny clauses. Which of the following attributes cannot be used for defining an ACL rule?

- A. Source address
- B. Destination address
- C. Port number
- D. AS-Path

**Correct Answer: D**

**Section:**

**QUESTION 418**

The configurations of the defined route-policy Set-cost are as follows:



```
ipip-prefix 1 permit 10.1.0.0 16
route-policy Set-cost permit node 10
if-match ip-prefix 1
apply cost 300
route-policy Set-cost permit node 20
apply cost 200
```

Which of the following statements is true?

- A. The route 10.1.0.0/16 matches node 10 and its cost is set to 300.
- B. The route 10.1.0.0/16 matching node 10 also matches node 20 subsequently and its cost is finally set to 200.
- C. Costs of all routes will be set to 200.
- D. All routes that fail to match node 10 will be denied.

**Correct Answer: A**

**Section:**

#### QUESTION 419

Divide the network by using VLAN can (). (Choose two.)

- A. Support more network layer protocols
- B. Restrict the scope of broadcast domain
- C. Increase the collision
- D. Guarantee the security

**Correct Answer: B, D**

**Section:**

#### QUESTION 420

Which statements regarding the PVID on the access interface are true? (Choose three.)

- A. If a packet without VLAN tag is received, the interface adds a VLAN tag to the packets and sets the VID as the default VLAN ID.
- B. If a packet with VLAN tag is received, the interface compares the VLAN ID in the tag with the default VLAN ID. If they are the same, the interface forwards the packets; otherwise, the interface discards the packets.
- C. When the interface sends a packet with a VLAN tag that contains the default VLAN ID, the system removes the VLAN tag of the packet, and then forwards the packet.
- D. PVID on access interface is set to 1 by default and can't be changed.

**Correct Answer: A, B, C**

**Section:**

#### QUESTION 421

Which of the following is the multicast distribution tree maintained by PIM-DM?

- A. SPT
- B. CBT



- C. RPT
- D. STP

**Correct Answer: A**

**Section:**

**QUESTION 422**

Which of the following route entries match IP-Prefix defined below? (Choose two.)  
ipip-prefix test index 10 permit 192.168.0.0 16 greater-equal 24 less-equal 28

- A. 192.168.1.0/24
- B. 192.10.2.0/24
- C. 192.168.3.0/25
- D. 192.168.4.0/30

**Correct Answer: A, C**

**Section:**

**QUESTION 423**

What is the range of VLAN IDs?

- A. 1~1000
- B. 0~4095
- C. 0~4096
- D. 1~4096

**Correct Answer: B**

**Section:**

**QUESTION 424**

What is the function for the command "InterfaceVlan-interface Vlan-ID"?

- A. Create a VLAN
- B. Create or enter VLAN interface view
- C. Configure a VLAN for port
- D. Configure PVID

**Correct Answer: B**

**Section:**

**QUESTION 425**

Which of the following route entries matches ACL 2001 that is defined below?





```
ipip-prefix 1 permit 10.1.0.0 16
route-policy Set-cost permit node 10
if-match ip-prefix 1
apply cost 300
route-policy Set-cost permit node 20
apply cost 200
```

- A. 1.2.3.0/24,1.2.4.0/24, 1.2.5.0/24, 1.2.6.0/24,1.2.7.0/24,1.2.8.0/24
- B. 1.0.0.0/8,1.2.0.0/16,1.2.3.0/24,1.2.4.0/24, 1.2.5.0/24, 1.2.6.0/24,1.2.7.0/24,1.2.8.0/24
- C. 1.2.3.0/24,1.2.5.0/24,1.2.7.0/24
- D. 1.2.0.0/16,1.2.4.0/24,1.2.6.0/24,1.2.8.0/24

**Correct Answer: C**

**Section:**

#### QUESTION 426

The route selection tool route-policy can filter and set BGP attributes based on pre-defined conditions. Therefore, this tool is commonly used to define policies for BGP peers and often used in route generation.

- A. True
- B. False

**Correct Answer: A**

**Section:**

#### QUESTION 427

Which of the following statements about comparison between ACL and IP-Prefix are true? (Choose two.)

- A. Both ACL and IP-Prefix can be used for route filtering
- B. Both ACL and IP-Prefix can be used for data packet filtering
- C. ACL can be used for data packet filtering and route filtering, but IP-Prefix can only be used for route filtering
- D. IP-Prefix can be used for data packet filtering and route filtering, but ACL can only be used for route filtering

**Correct Answer: A, C**

**Section:**

#### QUESTION 428

Route filtering can filter not only routing information but also link-status information.

- A. True
- B. False

**Correct Answer: B**

**Section:**



**QUESTION 429**

VLANs isolate broadcast domains, eliminate broadcast storms, and enhance data security.

- A. TRUE
- B. FALSE

**Correct Answer: A**

**Section:**

**QUESTION 430**

A OSPF network may be structured, or subdivided into routing areas. Such routing areas are a set of network segments.

- A. TRUE
- B. FALSE

**Correct Answer: A**

**Section:**

**QUESTION 431**

RSTP has all functions of STP and it is backwards compatible with STP.

- A. TRUE
- B. FALSE

**Correct Answer: A**

**Section:**

**QUESTION 432**

Which of the following protocols support the multicast ASM service model? (Choose two.)

- A. PIM-SM and IGMPv2
- B. PIM-SSM and IGMPv3
- C. BGP and OSPF
- D. PIM-DM and IGMPv2

**Correct Answer: A, D**

**Section:**

**QUESTION 433**

The USG supports load balancing between multiple uplinks.

- A. TRUE
- B. FALSE

**Correct Answer: A**

**Section:**

**QUESTION 434**

Policy-based routing and routing policy affect the forwarding of data packets in different ways: A routing policy mainly controls packet forwarding. According to the routing policy, packets can be forwarded with no need to use a routing table; policy-based routing mainly controls the importing, advertising, and receiving of routing information so as to affect the forwarding of data packets.

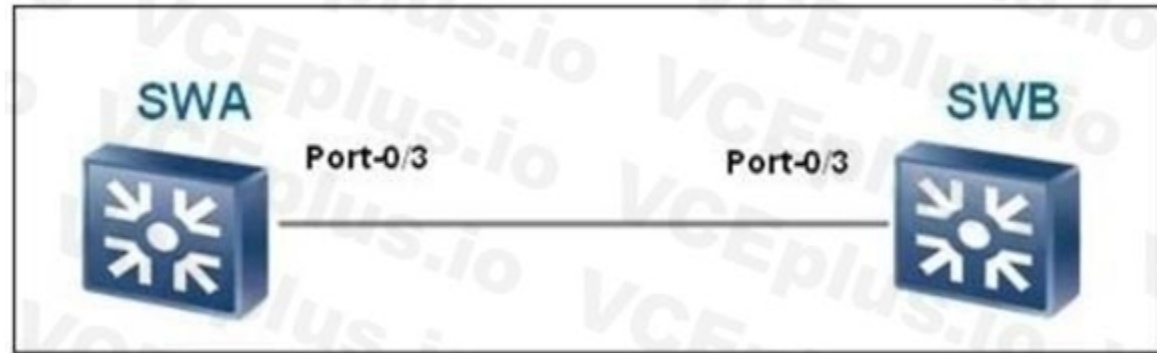
- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 435**

As shown in the figure, SWA and SWB are two switches. Which statements are true? (Choose three.)



- A. Port0/3 can be an access interface
- B. Port0/3 can be a hybrid interface
- C. Port0/3 can be a trunk interface
- D. None of the above

**Correct Answer: A, B, C**

**Section:**

**QUESTION 436**

In IPv4, which of the following is the SSM address range allocated by the IANA?

- A. 232.0.0.0/24
- B. 225.0.0.0/8
- C. 232.0.0.0/8
- D. 239.0.0.0/8

**Correct Answer: D**

**Section:**

**QUESTION 437**

The "import-route limit" command is used to set a maximum number of imported routes that can be imported into an OSPF routing process.

- A. TRUE
- B. FALSE

**Correct Answer: A**



**Section:**

**QUESTION 438**

Which of the following statements about ACL type are true? (Choose three.)

- A. ACL consists of basic ACL, advanced ACL and interface-based ACL
- B. ACL ranging from 2000 to 2999 belongs to advanced ACL
- C. ACL ranging from 3000 to 3999 belongs to advanced ACL
- D. Advanced ACL can be used to match either destination address or source address

**Correct Answer: A, C, D**

**Section:**

**QUESTION 439**

Which of the following tools cannot be used for route filtering?

- A. Filter-policy
- B. IP-prefix
- C. Route-policy
- D. Policy-based-route

**Correct Answer: D**

**Section:**

**QUESTION 440**

Which of the following route entries matches ACL 2001 that is defined below?

1.0.0.0/8 ,1.2.0.0/16,1.2.3.0/24,1.2.4.0/24, 1.2.5.0/24, 1.2.6.0/24,1.2.7.0/24,1.2.8.0/24

ACL 2001:

Basic ACL2001, 1 rule

Ac1's step is 5

rule 0 permit source 1.2.0.0 0.0.254.255

- A. 1.2.3.0/24,1.2.4.0/24, 1.2.5.0/24, 1.2.6.0/24,1.2.7.0/24,1.2.8.0/24
- B. 1.0.0.0/8 ,1.2.0.0/16,1.2.3.0/24,1.2.4.0/24, 1.2.5.0/24, 1.2.6.0/24,1.2.7.0/24,1.2.8.0/24
- C. 1.2.3.0/24,1.2.5.0/24,1.2.7.0/24
- D. 1.2.0.0/16,1.2.4.0/24,1.2.6.0/24,1.2.8.0/24

**Correct Answer: D**

**Section:**

**QUESTION 441**

How does an IGMP router maintain group memberships on the network? (Choose two.)

- A. The router maintains a timer for each group membership. If the router receives a Report message from a receiver host, it refreshes the timer of the group membership of this host; if the router does not receive any



Report message from a receiver host before the timer expires, it deletes the group membership of this host.

- B. The router periodically sends Query messages. After a receiver host receives the Query message, the receiver host sends a Report message.
- C. A receiver host periodically sends a Report message.
- D. The router deletes a group membership only when it receives a Leave message for this group.

**Correct Answer: A, B**

**Section:**

**QUESTION 442**

How many types of topology change messages are defined in RSTP?

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

**Correct Answer: A**

**Section:**

**QUESTION 443**

How many bits of the multicast MAC address are used for multicast IP address mapping?

- A. 24
- B. 22
- C. 25
- D. 23

**Correct Answer: D**

**Section:**

**QUESTION 444**

The IGMP protocol runs between a host and its directly connected multicast router.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 445**

Which of the following routers have multicast routing entries even when there is no receiver on the network? (Choose two.)

- A. Source's DR
- B. Receiver router
- C. Intermediate router
- D. RP



**Correct Answer: A, D**

**Section:**

**QUESTION 446**

Which of the following statements regarding IP address 224.0.0.1 are correct? (Choose two.)

- A. It is a multicast IP address.
- B. It is a private IP address.
- C. It represents all the hosts and routers.
- D. It represents all the routers.

**Correct Answer: A, C**

**Section:**

**QUESTION 447**

Which bits in a VLAN tag indicates 802.1Q?

- A. 0x9100
- B. 0x8808
- C. 0x8100
- D. 0x8800

**Correct Answer: C**

**Section:**

**QUESTION 448**

Which of the following statements regarding VLAN configuration are true? (Choose two.)

- A. You can enter the VLAN view and create a VLAN at the same time.
- B. Running undoVLANinvalidates the VLAN but the VLAN still exists. You do not need to recreate the VLAN to use it.
- C. You can configure a description string of VLAN. The length of the string is unlimited.
- D. If the VLAN ID is not entered when running the displayVLANcommand, all information about the VLAN will be displayed.

**Correct Answer: A, D**

**Section:**

**QUESTION 449**

Dividing a network using VLANs can (). (Choose two.)

- A. Support more network layer protocols
- B. Restrict the scope of broadcast domains
- C. Increase the number of collision domains
- D. Guarantee data security

**Correct Answer: B, D**

**Section:**



**QUESTION 450**

By default, the cost of an OSPF interface is calculated based on the bandwidth. The formula to calculate the cost is reference bandwidth/interface bandwidth.

- A. TRUE
- B. FALSEA

**Correct Answer:**

**Section:**

**QUESTION 451**

All routing protocols can deliver default routes, supporting both forcible delivery and non-forcible delivery.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 452**

How many multicast IP addresses can be represented by the same multicast MAC address?

- A. 1
- B. 23
- C. 32
- D. 24

**Correct Answer: C**

**Section:**

**QUESTION 453**

Which of the following statements about RPs are true? (Choose three.)

- A. Different group addresses on a PIM-SM network can correspond to different RPs.
- B. An RP is the root of an RPT.
- C. An RP is elected out of BSRs.
- D. All routers on a PIM-SM network must know the location of RPs.

**Correct Answer: A, B, D**

**Section:**

**QUESTION 454**

Which of the following routes matches the ACL filter given below?

"ad number 2001 rule 0 permit source 1.1.0.0 0"

- A. 1.1.1.1/32
- B. 1.1.1.0/24
- C. 1.1.0.0/16



D. 1.0.0.0/8

**Correct Answer: C**

**Section:**

**QUESTION 455**

What is the maximum number of hosts that a network segment 192.168.2.16/28 can support?

- A. 16
- B. 8
- C. 15
- D. 14
- E. 7

**Correct Answer: D**

**Section:**

**QUESTION 456**

When importing routes discovered by other routing protocols, a routing protocol may need to import only the routes that meet the conditions and set attributes of the imported routes to meet the requirement of the protocol. In such a case, a route-policy can be created.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 457**

Which of the following protocols support the multicast ASM model? (Choose two.)

- A. PIM-SM and IGMPv2
- B. PIM-SSM and IGMPv3
- C. BGP and OSPF
- D. PIM-DM and IGMPv2

**Correct Answer: A, D**

**Section:**

**QUESTION 458**

Which interface is connected to the user-side interface?

- A. Access interface
- B. Trunk interface
- C. Hybrid interface
- D. All of the above

**Correct Answer: A**





**Section:**

**QUESTION 459**

The Internet Group Management Protocol (IGMP) runs between hosts and their immediately neighboring multicast routers.

- A. TRUE
- B. FALSE

**Correct Answer: A**

**Section:**

**QUESTION 460**

The link that connects a PC to a switch is ( ).

- A. Access Link
- B. Trunk Link
- C. Hybrid Link
- D. ISL Link

**Correct Answer: A**

**Section:**

**QUESTION 461**

Which of the following statements is NOT an advantage of STP?

- A. STP can establish redundant links as a backup if the initial link fails.
- B. STP can prevent loops
- C. STP can prevent broadcast storms
- D. STP can save network bandwidth

**Correct Answer: D**

**Section:**

**QUESTION 462**

Which of the following is the port state defined by RSTP?

- A. Discarding
- B. Learning
- C. Forwarding
- D. All of the above

**Correct Answer: D**

**Section:**

**QUESTION 463**

Which of the following statements about costs of routing protocols is false?



- A. Because different routing protocols have the same basis for calculating route costs, it is recommended to adopt automatic cost converting in route importing.
- B. Because different routing protocols have different bases for calculating route costs, it is recommended to perform manual configuration for cost converting in route importing.
- C. Costs of OSPF routes is generally based on bandwidth and therefore OSPF cost value ranges is wide.
- D. Costs of RIP routes are generally based on hops and therefore the RIP cost value range is narrow.

**Correct Answer: A**

**Section:**

**QUESTION 464**

What are the functions of route filtering? (Choose three.)

- A. Avoids sub-optimal routes generated during route import.
- B. Avoids routing loops.
- C. Affects route selection by changing route attributes.
- D. Implements accurate route importing and controls route advertisement.

**Correct Answer: A, B, D**

**Section:**

**QUESTION 465**

Which of the following methods are supported by OSPF for delivering default routes? (Choose three.)

- A. Delivery by an ABR
- B. Delivery by a Backbone Router
- C. Forcible delivery
- D. Non-forcible delivery



**Correct Answer: A, C, D**

**Section:**

**QUESTION 466**

Which of the following is the priority value of the DMZ on the USG?

- A. 10
- B. 50
- C. 75
- D. 85

**Correct Answer: B**

**Section:**

**QUESTION 467**

Which of the following situations will occur after multicast load balance is configured? (Choose three.)

- A. If there are no equal-cost unicast routes, multicast load balance will fail to function.
- B. If group address-based load splitting is used, balanced entry distribution over equal-cost routes cannot be ensured because of hash algorithm limitations.
- C. Balanced entry distribution over equal-cost routes can be ensured as long as multicast load balance is configured.

D. In multicast load splitting, traffic may not be balanced among equal-cost routes. This is because multicast load balance is based on multicast entries but not based on multicast data packets.

**Correct Answer: A, B, D**

**Section:**

**QUESTION 468**

ACL rules are matched based on the configured order only.

- A. TRUE
- B. FALSE

**Correct Answer: B**

**Section:**

**QUESTION 469**

Before establishing a network, we must create VLANs. The users that do not need to communicate with each other should be added to the same VLAN for isolation.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 470**

A 32-bit MPLS header consists of a 20-bit label used for packet forwarding, a 3-bit EXP field that identifies the IP packet priority, a 1-bit bottom-of-stack flag that identifies the last label, and an 8-bit ITL field. Which statement about the ITL field is true?

- A. It is used to prevent packet forwarding loops, similar to the TTL field in an IP header.
- B. It is used for label management.
- C. It specifies the upstream device in label distribution
- D. It controls the LSR.

**Correct Answer: A**

**Section:**

**QUESTION 471**

Which of the following statements regarding RPs are true? (Choose three.)

- A. Different group addresses on a PIM-SM network corresponds to different RPs.
- B. An RP is the root of an RPT.
- C. An RP is elected out of BSRs.
- D. All routers on a PIM-SM network must automatically discover the location of RPs.

**Correct Answer: A, B, D**

**Section:**

**QUESTION 472**

BGP is an exterior gateway protocol which runs between ASs. It focuses on the control of route propagation and selection of optimal routes rather than discovery and calculation of routes.

- A. TRUE
- B. FALSE

**Correct Answer: A**

**Section:**

**QUESTION 473**

RTA is a source's DR and RTB is an RP. A multicast source sends multicast data to RTA but RTB cannot find any information about the multicast source (registered by using the PIM Register message). Why? (Choose three.)

- A. RTB has no unicast routes to RTA.
- B. RTA fails to learn RP information.
- C. RTA has no unicast routes to RTB.
- D. The RP learned by RTA is not RTB.

**Correct Answer: B, C, D**

**Section:**

**QUESTION 474**

Which of the following describes the relationship between BGP and AS?

- A. BGP only runs between ASs, and cannot run within an AS.
- B. BGP is an EGP used by ASs to exchange routing information with other ASs.
- C. BGP builds network topologies by exchanging link-state information between ASs.
- D. BGP cannot run between ASs.



**Correct Answer: B**

**Section:**

**QUESTION 475**

To which attribute type does the BGP AS-Path attribute belong?

- A. Well-known Mandatory
- B. Well-known Discretionary
- C. Optional Transitive
- D. Optional Non-transitive

**Correct Answer: A**

**Section:**

**QUESTION 476**

VLANs isolate broadcast domains, eliminates broadcast storms, and enhances information security.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 477**

In PIM-DM, which of the following messages needs to be sent by a downstream interface when the downstream interface recovers to the forwarding state from the prune state?

- A. Join
- B. Assert
- C. Prune
- D. Graft

**Correct Answer: D**

**Section:**

**QUESTION 478**

Which of the following routers can initiate SPT switchover on a PIM-SM network? (Choose two.)

- A. Last-hop router
- B. Intermediate router
- C. RP
- D. Source's DR

**Correct Answer: A, C**

**Section:**

**QUESTION 479**

How many default zones does the USG supporting multi-instance have?

- A. Two
- B. Three
- C. Four
- D. Five

**Correct Answer: D**

**Section:**

**QUESTION 480**

An IP address 192.168.13.175 with the subnet mask 255.255.255.2 can be assigned to a device.

- A. TRUE
- B. FALSE

**Correct Answer: B**

**Section:**

**QUESTION 481**

The `acl[ number ] acl-number [ match-order { auto | config }` command is used to configure an ACL. In this command, `acl-number` specifies the number of an ACL. For an advanced ACL, what is the range of its `acl-number`?



- A. 1000 to 3999
- B. 2000 to 2999
- C. 3000 to 3999
- D. 0 to 1000

**Correct Answer: C**

**Section:**

**QUESTION 482**

If a BGP peer is configured with "multiple" route selection tools for route filtering, which of the following statements are true? (Choose two.)

- A. The routes received from the BGP peer are matched first with IP-prefix and then with route-policy.
- B. The routes received from the BGP peer are matched first with route-policy and then with IP-prefix.
- C. The routes sent to the BGP peer are matched first with IP-prefix and then with route-policy.
- D. The routes sent to the BGP peer are matched first with route-policy and then with IP-prefix.

**Correct Answer: A, C**

**Section:**

**QUESTION 483**

Which of the following protocols are multicast routing protocol? (Choose three.)

- A. DVMRP
- B. PIM-DM
- C. OSPF
- D. PIM-SM

**Correct Answer: A, B, D**

**Section:**

**QUESTION 484**

Which of the following routing protocols support import-route? (Choose three.)

- A. OSPF
- B. RIP
- C. BGP
- D. Static

**Correct Answer: A, B, C**

**Section:**

**QUESTION 485**

What is the network address for the IP address 190.233.27.13/16?

- A. 190.0.0.0
- B. 190.233.0.0
- C. 190.233.27.0



D. 190.233.27.1

**Correct Answer: B**

**Section:**

**QUESTION 486**

Which types of interfaces are supported by Huawei switches after the VLAN function is configured? (Choose three.)

- A. Access interface
- B. Trunk interface
- C. Hybrid interface
- D. Dialer interface

**Correct Answer: A, B, C**

**Section:**

**QUESTION 487**

The option field in a DHCP message uses the CLV mode.

- A. TRUE
- B. FALSE

**Correct Answer: A**

**Section:**

**QUESTION 488**

Which of the following statements about a multicast distribution tree are true? (Choose three.)

- A. Multicast distribution trees are classified into two types: SPT and RPT.
- B. The PIM-SM protocol can generate both RPTs and SPTs.
- C. The PIM-SSM protocol can generate only SPTs.
- D. The PIM-DM protocol can generate both RPTs and SPTs.

**Correct Answer: A, B, C**

**Section:**

**QUESTION 489**

Which of the following routes matches this ACL filter?

"acl number 2001 rule 0 permit source 1.1.0.0"

- A. 1.1.1.1/32
- B. 1.1.1.0/24
- C. 1.1.0.0/16
- D. 1.0.0.0/8

**Correct Answer: C**

**Section:**



**QUESTION 490**

What does the IP-prefix-filter "ipip-prefix test index 10 deny 0.0.0.0 0 less-equal 32" mean?

- A. Matching only default routes
- B. Matching all routes
- C. Denying only default routes
- D. Denying all routes

**Correct Answer: D**

**Section:**

**QUESTION 491**

Which of the following statements is true regarding the function of VRRP?

- A. VRRP can improve default gateway reliability.
- B. VRRP increases the routing protocol convergence speed.
- C. VRRP is mainly used for traffic balance.
- D. VRRP can provide one default gateway for different network segments, simplifying the PC gateway configuration.

**Correct Answer: A**

**Section:**

**QUESTION 492**

Default routes between routers are a low-cost solution. This is because using default routes requires less system resources than maintaining a complete routing table.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 493**

How many bits of the MAC address space is available for mapping IP multicast addresses?

- A. 24
- B. 22
- C. 25
- D. 23

**Correct Answer: A**

**Section:**

**QUESTION 494**

Which of the following commands is used to display the IGMP routing table?

- A. Display igmp group
- B. Display igmp interface



- C. Display igmp routing-table
- D. Display igmp

**Correct Answer: C**

**Section:**

**QUESTION 495**

For link-status routing protocols, filtering routes in the inbound direction actually cannot block the transmission of link-status information. The filtering effect is that routes cannot be injected into the local routing table but neighbors can still receive complete route status information and calculate complete routes.

- A. True
- B. False

**Correct Answer: A**

**Section:**

**QUESTION 496**

Which of the following is not supported by policy-based route for specifying the data forwarding path?

- A. Source address
- B. Port number
- C. Destination address
- D. Packet length

**Correct Answer: B**

**Section:**

**QUESTION 497**

Which of the following problems can be solved by IGMP Snooping?

- A. Receiver hosts support only IGMPv2 but the SSM model is used on the network.
- B. A large number of receiver hosts exist on the network and a router receives large quantities of IGMP Report messages.
- C. Multicast data packets are broadcast on Layer 2 devices.
- D. Validity of IGMP Report messages.

**Correct Answer: C**

**Section:**

**QUESTION 498**

What are the advantages of subnetting? (Choose two.)

- A. Isolating broadcast traffic
- B. Improving network QOS
- C. Increasing the IP address usage
- D. Improving network reliability

**Correct Answer: A, C**



**Section:**

**QUESTION 499**

Which type of BGP route can be added to the BGP routing table?

- A. All BGP routes learned from peers
- B. Only the routes learned from IBGP peers
- C. Only the routes learned from EBGP peers
- D. Only optimal routes

**Correct Answer: A**

**Section:**

**QUESTION 500**

On a STP network, which of the following BPDUs are sent during flooding of information throughout the network due to STP topology change?

- A. BPDUs with the TCN flag
- B. BPDUs with the TCA flag
- C. BPDUs with the TC flag
- D. All of the above

**Correct Answer: D**

**Section:**

**QUESTION 501**

Which of the following multicast protocols can generate multicast distribution trees?

- A. MBGP
- B. MSDP
- C. IGMP
- D. PIM

**Correct Answer: D**

**Section:**

**QUESTION 502**

When an edge port is in the protected state on an RSTP network, which of the following operations is performed by the edge port immediately after receiving BPDUs?

- A. The edge port forwards BPDUs.
- B. The edge port discards BPDUs.
- C. The edge port is shut down.
- D. The edge port obtains required information from BPDUs.

**Correct Answer: C**

**Section:**



**QUESTION 503**

Which of the following statements about DR are true? (Choose three.)

- A. In DR election, among the routers of the same DR priority, the router with the lowest IP address is elected.
- B. A source's DR is responsible for sending Register messages to an RP.
- C. A receiver's DR is responsible for sending Join messages to a multicast source or an RP.
- D. An Assert winner on a shared network segment may not be a DR.

**Correct Answer: B, C, D**

**Section:**

**QUESTION 504**

How many multicast IP addresses can be represented by an IP multicast MAC address?

- A. 1
- B. 23
- C. 32
- D. 24

**Correct Answer: C**

**Section:**

**QUESTION 505**

A VLAN can be regarded as a ( )

- A. collision domain
- B. broadcast domain
- C. management domain
- D. congestion domain

**Correct Answer: B**

**Section:**

**QUESTION 506**

For label switched packets that contain the same source and destination address and are transmitted via the same interface, the label switch path 0

- A. Must be different.
- B. Must be the same.
- C. May be the same.

**Correct Answer: B**

**Section:**

**QUESTION 507**

One route-policy may have several nodes and each node has a node ID. Each node may have "multiple" if-match and apply clauses. Which of the following statements are true? (Choose two.)

- A. Different nodes are in an OR relationship.



- B. Different nodes are in an AND relationship.
- C. If-match clauses under a node are in an AND relationship.
- D. If-match clauses under a node are in an OR relationship.

**Correct Answer: A, C**

**Section:**

**QUESTION 508**

The unicast and multicast technologies are both outstanding in solving the problem of one source and "multiple" destinations for efficient P2MP data transmission.

- A. True
- B. False

**Correct Answer: B**

**Section:**

**QUESTION 509**

Which of the following is the address range assigned by IANA for SSM service in IPv4?

- A. 232.0.0.0/24
- B. 225.0.0.0/8
- C. 232.0.0.0/8
- D. 239.0.0.0/8

**Correct Answer: D**

**Section:**

**QUESTION 510**

Which of the following route prefixes match this IP-prefix-filter? (Choose three.)

"ipip-prefix test index 10 permit 10.0.0.0 16 greater-equal 24 less-equal 28"

- A. 10.0.1.0/23
- B. 10.0.1.0/24
- C. 10.0.1.0/25
- D. 10.0.1.0/28

**Correct Answer: B, C, D**

**Section:**

**QUESTION 511**

Which of the following commands is used to display check information of IGMP enabled interface?

- A. [Quidway]showipigmp interface
- B. [Quidway]displayigmp interface
- C. [Quidway]showipigmp
- D. [Quidway]displayip interface



**Correct Answer: B**

**Section:**

**QUESTION 512**

Which of the following statements are true regarding VRRP?

- A. Only the Master can process the data packets being sent to the virtual router.
- B. Only the Slave can process the data packets being sent to the virtual router.
- C. Both Master and Slave can process the data packets being sent to the same virtual router to realize load balance.
- D. By default, only the Master can process the data packets being sent to the virtual router; but certain configurations can make the Slave process the data packets being sent to the virtual router.

**Correct Answer: A**

**Section:**

**QUESTION 513**

An OSPF neighbor relationship fails to establish and the OSPF error information is displayed as follows. Which of the following is most likely the cause?



```

[RTB]display ospf error
      OSPF Process 1 with Router ID 2.2.2.2
      OSPF error statistics:
General packet errors:
0  : IP: received my own packet      0  : Bad packet
0  : Bad version                    0  : Bad checksum
0  : Bad area id                    0  : Drop on unnumbered interface
0  : Bad virtual link               0  : Bad authentication type
0  : Bad authentication key         0  : Packet too small
0  : Packet size>ip length          0  : Transmit error
0  : Interface down                 0  : Unknown neighbor
HELLO packet errors:
0  : Netmask mismatch               0  : Hello timer mismatch
0  : Dead timer mismatch            0  : Extern option mismatch
9  : Router id confusion             0  : Virtual neighbor unknown
0  : NBMA neighbor unknown
DD packet errors:
0  : Neighbor state low              0  : Router id confusion
0  : Extern option mismatch          0  : Unknown LSA type
0  : MTU option mismatch
LS ACK packet errors:
0  : Neighbor state low              0  : Bad ack
0  : Duplicate ack                  0  : Unknown LSA type
LS REQ packet errors:
0  : Neighbor state low              0  : Empty request
0  : Bad request
LS UPD packet errors:
0  : Neighbor state low              0  : Newer self-generate LSA
0  : LSA checksum bad               0  : Received less recent LSA
0  : Unknown LSA type
Opaque errors:
0  : 9-out of flooding scope         0  : 10-out of flooding scope
0  : 11-out of flooding scope
Retransmission for packet over Limitation errors:
0  : Number for DD Packet             0  : Number for Update Packet
0  : Number for Request Packet
Receive Grace LSA errors:
0  : Number of invalid LSAs          0  : Number of policy failed LSAs
0  : Number of wrong period LSAs
Configuration errors:
0  : Tunnel cost mistake
0  : The network type of the neighboring interface is not consistent

```



- A. Router IDs conflict.
- B. Area IDs are mismatched.
- C. Network masks are inconsistent.
- D. Authentication types are inconsistent.

**Correct Answer: C**

**Section:**

**QUESTION 514**

Which of the following statements regarding Router-LSA connection type (Type) is false?

- A. Point-to-Point describes about the Point-to-Point connection from the local router to a neighboring router.
- B. TransNet describes a connection from the local router to a transit network segment.
- C. StubNet describes a connection from the local router to a stub network segment.
- D. P2MP describes connections from the local router to multiple neighboring routers.

**Correct Answer: D**

**Section:**

**QUESTION 515**

Which of the following statements regarding Network-Summary-LSA are true? (Choose all that apply.)

- A. Link State ID in Network-Summary-LSA is set as the destination network IP address.
- B. Net mask in Network-Summary-LSA is set as the network mask of the destination network segment.
- C. Metric in Network-Summary-LSA is set as the cost of a route from an ABR to a destination network segment.
- D. Network-Summary-LSA is generated by an ASBR.

**Correct Answer: A, B, C**

**Section:**

**QUESTION 516**

Which of the following statements regarding the OSPF shortest path tree computation phase is true?

- A. Link State ID in Network-Summary-LSA is set as the destination network IP address.
- B. Net mask in Network-Summary-LSA is set as the network mask of the destination network segment.
- C. Metric in Network-Summary-LSA is set as the cost of a route from an ABR to a destination network segment.
- D. Network-Summary-LSA is generated by an ASBR.

**Correct Answer: A, B, C**

**Section:**

**QUESTION 517**

Which of the following statements regarding the OSPF protocol are true? (Choose all that apply.)

- A. An OSPF topology has three endpoint types: router node, stub network segment, and transit network segment.
- B. A broadcast network segment or a NBMA network segment with at least two routers are a type of transit network segment.
- C. The default bandwidth reference value of OSPF is 100 Mbit/s.
- D. The cost from a transit network segment to the router connected to this network segment is 100.

**Correct Answer: A, B, C**

**Section:**

**QUESTION 518**

Which of the following statements regarding OSPF multi-instance is false?



- A. OSPF multi-instance takes effect globally.
- B. An interface of a router belongs to only a certain OSPF process.
- C. Route exchange between different OSPF processes is similar to route exchange between different routing protocols.
- D. Multiple OSPF processes can run on the same router, and they are independent of each other.

**Correct Answer: A**

**Section:**

**QUESTION 519**

Which of the following statements regarding OSPF packets is false?

- A. Hello packets are used to discover and maintain OSPF neighbor relationships and also can be used to elect DR and BDR on broadcast and NBMA networks.
- B. DD packets carry LSA header information to describe link state summary information.
- C. Two routers must send Hello packets at the same interval. Otherwise, they cannot establish an OSPF neighbor relationship.
- D. DD packets contain all LSA information and can be used to periodically synchronize LSDB information between neighbors.

**Correct Answer: D**

**Section:**

**QUESTION 520**

OSPF supports multiple network types. Which of the following network types require DR and BDR to be elected? (Choose all that apply.)

- A. P2P
- B. NBMA
- C. P2MP
- D. Broadcast



**Correct Answer: B, C, D**

**Section:**

**QUESTION 521**

Compared with OSPF, which of the following statements regarding IS-IS are true? (Choose all that apply.)

- A. IS-IS supports more network types.
- B. IS-IS supports more area types.
- C. IS-IS has better scalability.
- D. IS-IS supports fewer protocol packet types.

**Correct Answer: C, D**

**Section:**

**QUESTION 522**

Which of the following commands can enable IS-IS on an interface?

- A. ip router isis 100
- B. router isis 100
- C. isis enable 100



D. route isis enable 100

**Correct Answer: C**

**Section:**

**QUESTION 523**

Which of the following procedures are included in IS-IS route calculation? (Choose all that apply.)

- A. Neighbor relationship establishment
- B. Route calculation
- C. Link information exchange
- D. Route advertisement

**Correct Answer: A, B, C, D**

**Section:**

**QUESTION 524**

Which of the following statements regarding BGP is false?

- A. BGP is an exterior routing protocol and is used to transmit routing information between ASs.
- B. BGP is a link-state routing protocol.
- C. BGP supports CIDR.
- D. BGP provides abundant route filtering and routing policies.

**Correct Answer: B**

**Section:**



**QUESTION 525**

Which of the following BGP attributes are well-known community attributes? (Choose all that apply.)

- A. No\_Export (0xFFFFFF01)
- B. No\_Advertise (0xFFFFFF02)
- C. Advertise
- D. Internet

**Correct Answer: A, B**

**Section:**

**QUESTION 526**

BGP is an enhanced distance-vector routing protocol. Which is the major reason for this?

- A. BGP does not accept the routes whose AS\_Path attribute contains the local AS number.
- B. Nexthop is a well-known mandatory attribute of BGP routes.
- C. The AS\_Path attribute records all the ASs that a BGP route passes through on the transmission path. In route selection rules, a route with a shorter AS\_Path is preferred.
- D. The AS\_Path attribute records all the ASs that a BGP route passes through on the transmission path. In route selection rules, a route with a shorter AS\_Path is preferred, and the AS\_Path attribute is also checked in IBGP.

**Correct Answer: C**

**Section:**

**QUESTION 527**

Once a BGP connection is established, if load balancing is not configured, a BGP Speaker just advertises the optimal route in its BGP routing table to its neighbors.

- A. TRUE
- B. FALSE

**Correct Answer: A**

**Section:**

**QUESTION 528**

Which of the following configuration can enable indirectly connected EBGP peers to establish a connection normally?

- A. peer connect-interface
- B. peer ebgp-max-hop
- C. peer ignore
- D. peer as-number

**Correct Answer: B**

**Section:**

**QUESTION 529**

When the Hold Time parameter negotiated between two BGP peers is 0, no Keepalive messages will be sent.

- A. TRUE
- B. FALSE

**Correct Answer: A**

**Section:**

**QUESTION 530**

Which of the following statements regarding BGP message types and characteristics is false?

- A. Open messages are used to establish a peer relationship between two neighbors.
- B. Hello messages are periodically sent between BGP peers to maintain their connection.
- C. Update messages are used to exchange routing information between BGP peers.
- D. Notification messages are used to transmit error information between BGP Speakers.
- E. Route-refresh messages are used by a BGP device to notify its peer that it has the route refresh capability.

**Correct Answer: E**

**Section:**

**QUESTION 531**

The first four bits of a multicast IP address are fixed as 1110 and are mapped to the most significant 25 bits of a multicast MAC address.

Among the last 28 bits of a multicast IP address, only 23 bits are mapped to a multicast MAC address, and information about the other 5 bits is lost. As a result, 32 multicast IP addresses are mapped to the same MAC address.

- A. TRUE
- B. FALSE

**Correct Answer: A**

**Section:**

**QUESTION 532**

IGMP Snooping runs on the data link layer to manage and control multicast groups and prevents multicast packets on Layer 3 broadcasts.

- A. TRUE
- B. FALSE

**Correct Answer: A**

**Section:**

**QUESTION 533**

Which of the following route selection tools can be used by other routing protocols in addition to BGP? (Choose all that apply.)

- A. route-policy
- B. IP-prefix
- C. as-path-filter
- D. community-filter

**Correct Answer: A, B**

**Section:**



**QUESTION 534**

Which of the following statements regarding routing policy and policy-based routing are true? (Choose all that apply.)

- A. Policy-based routing is used to control packet forwarding without following routes in the routing table.
- B. A routing policy is used to control import, advertisement, and receiving of routing information.
- C. A routing policy is used to control packet forwarding without following routes in the routing table.
- D. Policy-based routing is used to control import, advertisement, and receiving of routing information.

**Correct Answer: A, B**

**Section:**