Huawei H12-821_V1.0 Mock Exam

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Question 1

Question Type: MultipleChoice

On an OSPF network, if two routers with the same router ID run in different areas and one of the routers is an ASBR, LSA flapping occurs.

Options:

A- TRUE
B- FALSE

Answer:

A

Explanation:

Understanding Router ID and Its Role in OSPF:

In OSPF, the Router ID uniquely identifies a router within the OSPF domain. If two routers are configured with the same Router ID, it can lead to issues such as LSA conflicts and flapping. This is because the Router ID is used as a key in OSPF operations, including LSA generation and database synchronization.

Scenario Details:

Different Areas: Even if the two routers belong to different areas, the Router ID remains globally significant in the OSPF domain. This means that any duplication of Router IDs will confuse OSPF mechanisms.

ASBR (Autonomous System Boundary Router): When one of the routers is an ASBR, it generates Type 4 and Type 5 LSAs to describe external routes. These LSAs use the Router ID as an identifier. If another router in the network has the same Router ID, conflicts occur during LSDB synchronization.

Impact of Router ID Duplication:

LSA Flapping: The OSPF process receives conflicting LSAs from routers with the same Router ID. This results in continuous updates and withdrawals of these LSAs, causing flapping.

Routing Instability: LSA flapping leads to frequent recalculations of the OSPF shortest path tree (SPT), affecting overall network stability.

Conclusion:

The statement is TRUE. LSA flapping occurs when two routers in an OSPF network have the same Router ID, even if they are in different areas and one is an ASBR. This is due to the global significance of Router IDs in OSPF and the role they play in LSA generation and propagation.

Question 2

Question Type: MultipleChoice

In BGP, Keepalive messages are used to maintain BGP peer relationships. When a BGP router receives a Keepalive message from a peer, the BGP router sets the state of the peer to Established and periodically sends Keepalive messages to maintain the connection. By default, the device sends Keepalive messages every seconds.

Options:

A- 60

Answer:

A

Explanation:

BGP Keepalive Message Behavior

Keepalive messages are used to maintain the Established state of a BGP peer relationship.

The Keepalive timer determines the frequency of these messages and defaults to 60 seconds, as per the BGP specification.

HCIP-Datacom-Core Reference

The Keepalive timer default value is covered in the BGP configuration and operational principles.

Question 3

Question Type: MultipleChoice

GRE is a Layer 2 VPN encapsulation technology that encapsulates packets of certain data link

layer protocols so that the encapsulated packets can be transmitted over an IP network.

Options:

A- TRUE
B- FALSE

Answer:

B

Explanation:

GRE (Generic Routing Encapsulation) is not a Layer 2 VPN technology. Instead, it is a Layer 3 tunneling protocol used to encapsulate a wide variety of network layer protocols inside point-to-point connections. GRE is commonly used for creating VPN tunnels across IP networks, allowing for the transport of various types of payloads. This misunderstanding about GRE being a Layer 2 technology contradicts its definition and typical application .

Question 4

Question Type: MultipleChoice

Which of the following statements regarding Local-Preference in BGP is true?

Options:

A- Local-Preference affects traffic that enters an AS.
B- Local-Preference can be transmitted between ASs.
C- The default Local-Preference value is 100.
D- Local-Preference is a well-known mandatory attribute.

Answer:

C

Explanation:

The Local-Preference attribute is used within an AS to influence outbound traffic paths. The

default value is 100, and it is a well-known discretionary attribute, meaning it is not mandatory and does not travel across AS boundaries .

Question 5

Question Type: MultipleChoice

Which of the following LSAs are advertised only within a single area?

Options:

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

Answer:

A, B

Explanation:

Router LSAs (Type 1) and Network LSAs (Type 2) are advertised only within a single OSPF area, as they describe the topology within the area. In contrast, Summary LSAs (Type 3) and AS External LSAs (Type 5) are used for inter-area and external routing, respectively .

Question 6

Question Type: MultipleChoice

Which option best statements regarding the BGP error display of a router is false?

Options:

A- The error occurred at 11:40:39 on March 22, 2010.
B- The neighbor address of this router is 10.1.1.2.
C- The error may be caused by the incorrect peer AS number.

D- Error Type indicates that the BGP error is caused by the neighbor relationship error.

Answer:

A

Explanation:

The provided BGP error display shows the error timestamp as 12:40:39 on March 22, 2010. The error message confirms a mismatch in the peer AS number, as indicated in the 'Incorrect remote AS' error info. This eliminates options related to other causes, and the timestamp in Option A is incorrect .

Question 7

Question Type: MultipleChoice

OSPF has multiple types of routes with varying priorities. Which of the following types of routes has the lowest priority when they have the same prefix?

Options:

A- Type 1 external route
B- Inter-area route
C- Type 2 external route
D- Intra-area route

Answer:

C

Explanation:

Comprehensive and Detailed Step-by-Step

OSPF Route Preference Hierarchy:

OSPF uses the following preference order for route types when the prefix is the same:

Intra-area routes (D): Routes within the same OSPF area have the highest priority.

Inter-area routes (B): Routes between different OSPF areas are preferred after intra-area routes.

Type 1 external routes (A): External routes redistributed into OSPF, considering the internal OSPF cost to the ASBR.

Type 2 external routes (C): External routes redistributed into OSPF, ignoring the internal OSPF cost to the ASBR.

Lowest Priority:

Type 2 external routes (C) are given the lowest priority because they represent external information that does not consider internal OSPF costs.

HCIA-Datacom Study Guide, Chapter: OSPF Route Preference

Huawei OSPF Routing Table Selection Rules

Question 8

Question Type: MultipleChoice

After which of the following parameters are modified does an IS-IS neighbor relationship need to re-established?

Options:

A- The cost of an IS-IS interface is changed.
B- The IP address of an ISIS interface is changed.
C- The level of an ISIS interface is changed.
D- The interval at which an IS-IS interface sends IIH packets is changed.

Answer:

C

Explanation:

When the level of an IS-IS interface is changed, the adjacency must be re-established because IS-IS adjacencies are formed based on matching levels (Level-1, Level-2, or both). Other changes, such as cost or hello intervals, do not disrupt the existing adjacency but might impact routing metrics or timing .

Question 9

Question Type: MultipleChoice

Which option best PIM protocol packets have unicast destination addresses.

Options:

A- Register Stop
B- Bootstrap
C- Graft
D- Assert

Answer:

A, C

Explanation:

In the PIM protocol, Register Stop and Graft messages are sent with unicast destination addresses, typically to specific neighbors or RP (Rendezvous Point) routers. Other messages like Bootstrap and Assert use multicast addresses for broader dissemination across the network .

Question 10

Question Type: MultipleChoice

To inject IGP routes into BGP routes, you can only use the network command.

Options:

A- TRUE
B- FALSE

Answer:

B

Explanation:

IGP routes can be injected into BGP using multiple methods, not just the network command. The import-route command can also be used to redistribute IGP routes into BGP. The network command requires the route to exist in the routing table, while import-route allows direct redistribution .

Question 11

Question Type: MultipleChoice

Which of the following is the default interval at which the DIS on a broadcast IS_IS network sends CSNPs.

Options:

A- 30
B- 3.3
C- 10
D- 40

Answer:

A

Explanation:

The Designated Intermediate System (DIS) in an IS-IS broadcast network sends Complete Sequence Number PDUs (CSNPs) at a default interval of 30 seconds. This interval ensures periodic synchronization of the Link State Database (LSDB) among IS-IS neighbors .

Question 12

Question Type: MultipleChoice

Which option best statements regarding the stateful inspection firewall is true?

Options:

A- When the stateful inspection firewall checks packets, packets of one same connection are not correlated.
B- Because UDP is a connectionless protocol, so the stateful inspection firewall cannot match UDP packets with the status table.
C- The stateful inspection firewall only needs to match the first data packet against a rule, and the subsequent packets of the connection are matched directly in the state table.
D- The stateful inspection firewall needs to match the rules for each incoming packet.

Answer:

C

Explanation:

A stateful inspection firewall tracks the state of network connections and only matches the initial packet against its rule set. Subsequent packets in the same connection are matched in the state table. Contrary to this, UDP packets can be inspected by correlating them with connection states, and packets in a single connection are always correlated .