



HUAWEI

Exam Questions H12-221

HCNP-R&S-IERN (Huawei Certified Network Professional-Implementing Enterprise Routing Network)

NEW QUESTION 1

Which statements about OSPF packets are true? (Select 3 answers)

- 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.

Answer: ABC

NEW QUESTION 2

Which of the following routing protocols support import-route? (Select 3 answers)

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

Answer: ABC

NEW QUESTION 3

Which of the following statements regarding multicast MAC addresses are true (Select 3 answers)

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

Answer: ABC

NEW QUESTION 4

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

Answer: D

NEW QUESTION 5

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

- A. TRUE
- B. FALSE

Answer: B

NEW QUESTION 6

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

Answer: A

NEW QUESTION 7

Which statement regarding BGP is false?

- A. BGP runs over TCP.
- B. BGP is an enhanced distance-vector routing protocol.
- C. BGP uses port number 189.
- D. BGP is an inter-AS routing protocol.

Answer: C

NEW QUESTION 8

The unicast and multicast technologies are both outstanding in solving the problem of "single source, multiple destinations" in order to allow efficient P2MP data transmission.

- A. TRUE
- B. FALSE

Answer: B

NEW QUESTION 9

According to 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

Answer: B

NEW QUESTION 10

Whenever changes occur in the BGP routing table, a BGP Speaker advertises all the optimal routes in the BGP routing table to its peers.

- A. TRUE
- B. FALSE

Answer: B

NEW QUESTION 10

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.
- E. No LSDB information will be exchanged.

Answer: C

NEW QUESTION 15

BGP speakers send which type of message to identify its peer's AS number information?

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

Answer: B

NEW QUESTION 16

Enabling MD5 authentication between BGP peers can prevent DoS attacks that target BGP peers.

- A. TRUE
- B. FALSE

Answer: A

NEW QUESTION 18

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 ACL 2001,1 rule

Ad'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

Answer: D

NEW QUESTION 19

Type 2-external route should always take precedence over a Type 1-external route.

- A. TRUE
- B. FALSE

Answer: B

NEW QUESTION 23

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

Answer: A

NEW QUESTION 25

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

- A. TRUE
- B. FALSE

Answer: A

NEW QUESTION 30

The Internet Group Management Protocol (IGMP) runs between hosts and their immediately neighboring multicast routers.

- A. TRUE
- B. FALSE

Answer: A

NEW QUESTION 35

Which command triggers 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

Answer: B

NEW QUESTION 37

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

- A. TRUE
- B. FALSE

Answer: A

NEW QUESTION 40

RTA and RTB are interconnected through a FE interface in an OSPF area. Which of the following can be used to configure the link cost between RTA and RTB as 10? (Select 2 answers)

- A. Use command "ospf cost 10" on the two routers
- B. Use command "ospf cost 5" on the two routers
- C. Use command "bandwidth-reference 500" on the two routers to change bandwidth-reference value
- D. Use command "bandwidth-reference 1000" on the two routers to change bandwidth-reference value

Answer: AD

NEW QUESTION 44

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

- A. TRUE
- B. FALSE

Answer: B

NEW QUESTION 47

The route selection tool route-policy" can set and filter BGP attributes based on pre-defined conditions. Therefore, this tool is often used to define policies towards a BGP peer or during route generation.

- A. TRUE
- B. FALSE

Answer: A

NEW QUESTION 48

What is the default network mask length of 219.25.23.56?

- A. 8
- B. 16

- C. 24
- D. 32

Answer: C

NEW QUESTION 49

<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

The preceding information is generated after a router receives a Report message from group 225.0.0.1 through Ethernet 6/1/0. Which type of Report message will not be processed by the router?

- A. IS_IN
- B. ALLOW
- C. BLOCK

Answer: C

NEW QUESTION 51

Based on BGP route selection rules, the route with the lowest multi-exit discriminator (MED) is preferred.

- A. TRUE
- B. FALSE

Answer: A

NEW QUESTION 56

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

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

Answer: B

NEW QUESTION 59

Assume that the subnet mask is 255.255.255.248. Which of the following are valid host addresses? (Select 3 answers)

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

Answer: BCD

NEW QUESTION 63

Which types of packets are supported by BGP? (Select 3 answers)

- A. Hello
- B. Notification
- C. Update
- D. Route-refresh

Answer: BCD

NEW QUESTION 64

Which parameters are carried in a BGPOpen message? (Select 3 answers)

- A. Local AS number
- B. BGPID
- C. Keepalive timer
- D. Holder timer
- E. Current peer status

Answer: ABD

NEW QUESTION 65

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

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

Answer: D

NEW QUESTION 69

In VRP, by default, a BGP router does not automatically send a refresh packet to its BGP peers for retransmitting an Update packet after the inbound routing policy of the BGP peers changes.

- A. TRUE
- B. FALSE

Answer: B

NEW QUESTION 72

Which of the following route entries match the IP-Prefix defined below?

ip ip-prefix test index 10 permit 192.168.0.0 16 greater-equal 24 less-equal 28
(Select 2 answers)

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

Answer: AC

NEW QUESTION 73

Which of the following statements are correct regarding OSPF Network LSAs? (Select 2 answers)

- A. Network LSAs are generated by ABR.
- B. Only the router which is connected to NBMA or Broadcast Network may generate Network LSAs.
- C. DR uses Network LSAs to describe routers that have established adjacency with it in the network,
- D. Network LSAs are flooded in the entire AS.

Answer: BC

NEW QUESTION 74

What are the differences between the IGMP versions 1, 2 & 3? (Select 2 answers)

- A. IGMPv1/v2 cannot elect devices which may send queries but IGMPv3 can.
- B. IGMPv2/v3 members can actively leave groups, whereas in IGMPv1 members cannot
- C. IGMPv1/v2 do not support the SSM service model but IGMPv3 does.
- D. IGMPv1/v2 do not support group-specific queries but IGMPv3 does.

Answer: BC

NEW QUESTION 75

Which is the origin attribute of the BGP routes redistributed using the import-route command?

- A. IGP
- B. EGP
- C. Incomplete
- D. Unknown

Answer: C

NEW QUESTION 76

When running in non-broadcast networks, OSPF uses one of the two modes: NBMA or P2MP.

- A. TRUE
- B. FALSE

Answer: A

NEW QUESTION 80

All routing protocols can deliver default routes, supporting both forcible delivery and non-forcible delivery.

- A. TRUE
- B. FALSE

Answer: B

NEW QUESTION 84

In OSPF protocol, Different types of networks cannot establish an adjacency with each other in the Full state.

- A. TRUE
- B. FALSE

Answer: B

NEW QUESTION 86

We can prevent a router from ever becoming a DR or BDR by configuring an OSPF Priority of zero,

- A. TRUE
- B. FALSE

Answer: A

NEW QUESTION 88

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 routing of an ABR to a destination network segment.
- D. Routing information can be exchanged between a backbone area and a non-backbone area but never between two non-backbone areas.

Answer: B

NEW QUESTION 91

Which of the following statements are correct regarding BGP attributes? (Select 2 answers)

- 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

Answer: AB

NEW QUESTION 93

What is the maximum number of bits that can be used for creating subnets, when the network address is a Class B address?

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

Answer: B

NEW QUESTION 96

Given a Class B network 155.16.0.0 with the mask 255.255.255.192, what is the maximum number of subnets that can be created, and what is the maximum number of hosts available within each created subnet?

- A. 512 126
- B. 1024 64
- C. 1024 62
- D. 256 254
- E. 192 254

Answer: C

NEW QUESTION 101

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

Answer: B

NEW QUESTION 106

How many hosts can the network 154.27.0.0 support, if not subnetted?

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

Answer: C

NEW QUESTION 107

A BGP finite state machine has the following states: Active
OpenConfirm Idle Established OpenSent
What is the state transition sequence to establish a successful BGP peer relationship?

- A. Idle-OpenSent-OpenConfirm-Active-Established
- B. Idle-Active-OpenSent-OpenConfirm-Established
- C. Active-Idle-OpenSent-OpenConfirm-Established
- D. Idle-Active-OpenConfirm-OpenSent-Established

Answer: B

NEW QUESTION 108

Which methods can be used to import local routes into BGP? (Select 2 answers)

- A. Run the network command,
- B. Receive routes from peers.
- C. Run the summary automatic command.
- D. Run the import command.

Answer: AD

NEW QUESTION 112

Which of the following elements are used by Network LSA to describe broadcast or NBMA network segments in OSPF routing protocol? (Select 3 answers)

- A. Link ID
- B. Net mask
- C. Attached Router list
- D. Metric

Answer: ABC

NEW QUESTION 117

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-LSA describes the means to reach an ASBR.

Answer: D

NEW QUESTION 120

Which session is established between BGP peers?

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

Answer: D

NEW QUESTION 121

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

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

Answer: D

NEW QUESTION 122

Which of the following statements 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) RouterID: 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.

Answer: C

NEW QUESTION 126

Which statements regarding BGP well-known mandatory attributes are true? (Select 3 answers)

- A. Well-known mandatory attributes must be recognized by all BGP routers.
- B. Well-known mandatory attributes impacts the path decision process.
- C. Well-known mandatory attributes are optional in an Update packet, and can be included in an Update packet as needed.
- D. Well-known mandatory attributes must be included in all Update packets.

Answer: ABD

NEW QUESTION 129

Which of these statements is true when configuring MD5 authentication between BGP peers?

- A. All routers in the same AS must use the same MD5 password.
- B. A pair of BGP peers must use the same MD5 password.
- C. All BGP peers must use the same MD5 password.
- D. Every BGP peer of a router must use a unique MD5 password.

Answer: B

NEW QUESTION 133

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 employed for subnetting? (Select 2 answers)

- A. Plan subnet 192.168.1.0/25 for Department
- B. The range of host addresses is 1 to 126.
- C. Plan subnet 192.168.1.128/27 for Department
- D. The range of host addresses is 129 to 159.
- E. Plan subnet 192.168.1.160/27 for Department
- F. The range of host addresses is 161 to 190.
- G. Plan subnet 192.168.1.192/27 for Department
- H. The range of host addresses is 192 to 222.

Answer: AC

NEW QUESTION 135

Which statements regarding prerequisites to establish a BGP peer relationship are true? (Select 2 answers)

- A. BGP peers must be manually configured.
- B. A TCP connection must be established between two neighboring routers.
- C. BGP peers must exchange routing information.
- D. MD5 authentication must be configured between BGP peers.

Answer: AB

NEW QUESTION 138

Which type of message is periodically exchanged between BGP peers to keep the BGP connection alive?

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

Answer: D

NEW QUESTION 143

Which of the following situations will occur when the command "multicast bad balance" is configured?(Select 3 answers)

- A. If there exists no unicast equal-cost routes, multicast load balancing fails.
- B. If group address-based load splitting is employed, balanced distribution of entries over equal-cost routes cannot be ensured due to hash function limitations.
- C. Balanced distribution of entries over equal-cost routes can be ensured as long as multicast load balancing is performed.
- D. During multicast load splitting, traffic may not be balanced among equal-cost routes because multicast load balancing is based on multicast entries not multicast data packets.

Answer: ABD

NEW QUESTION 148

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

Answer: A

NEW QUESTION 152

The Origin attribute of the BGP routes injected with the network command are considered IGP.

- A. TRUE
- B. FALSE

Answer: A

NEW QUESTION 155

Which of the following BGP attributes is an optional transitive attribute?

- A. ORIGIN
- B. AS_PATH
- C. NEXT_HOP
- D. MED
- E. LOCAL_PREF
- F. COMMUNITY

Answer: F

NEW QUESTION 158

We can have different network segments in an OSPF area. We can also have same network segment in different OSPF areas.

- A. TRUE
- B. FALSE

Answer: B

NEW QUESTION 162

Which of the following statements are false? (Select 3 answers)

- A. ASBR-Summary-LSAs describe the route to an ASBR and are flooded within an AS.
- B. ASE-LSAs describe the route to an external AS and are flooded to an external AS.
- C. AS-external-LSAs do not belong to any particular OSPF area,
- D. The Type-1 external metrics include only the AS external metric.

Answer: ABD

NEW QUESTION 167

Which of the following attributes must exist in the BGP update messages? (Select 3 answers)

- A. LOCAL_PREF
- B. NEXT_HOP
- C. ORIGIN
- D. AS_PATH

Answer: BCD

NEW QUESTION 168

A Router ID is optional in the OSPF configuration.

- A. TRUE
- B. FALSE

Answer: B

NEW QUESTION 169

Which of the following BGP attributes are optional in a BGP Update packet? (Select 2 answers)

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

Answer: CD

NEW QUESTION 170

Default routes between routers are a low-cost solution because they are easy to configure and require less system resources when compared with maintaining a complete routing table.

- A. TRUE
- B. FALSE

Answer: A

NEW QUESTION 174

Which of the following statements belong to BGP community attribute? (Select 3 answers)

- A. NO_EXPORT
- B. NO_ADVERTISE
- C. LOCAL_EXPORT_SUBCONFED
- D. NO_BROADCAST

Answer: ABC

NEW QUESTION 179

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

- A. TRUE
- B. FALSE

Answer: A

NEW QUESTION 181

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

- A. TRUE
- B. FALSE

Answer: B

NEW QUESTION 184

In the process of calculating SPF tree, the cost from a given node to its root node is equal to the metric listed in the Router LSA generated by the node.

- A. TRUE
- B. FALSE

Answer: B

NEW QUESTION 189

OSPF uses SPF algorithm to compute the SPF tree based on the topology. What is the node of the SPF tree?

- A. Router
- B. Router and network segment
- C. Port and network segment
- D. Router and port

Answer: B

NEW QUESTION 190

One route-policy may have several nodes with each node containing a node ID. Each node may also have multiple "if-match" and "apply" clauses. Which of the following statements are true? (Select 2 answers)

- A. Different nodes are in an OR relationship.
- B. Different nodes are in an AND relationship.
- C. If-match clauses of a node are in an AND relationship.
- D. If-match clauses of a node are in an OR relationship.

Answer: AC

NEW QUESTION 191

In which of the following states do BGP peers refuse to initiate or accept connection requests?

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

Answer: D

NEW QUESTION 196

Which of the following are multicast routing protocols? (Select 3 answers)

- A. DVMRP
- B. PIM-DM
- C. OSPF
- D. PIM-SM

Answer: ABD

NEW QUESTION 199

InVRP, by default, a BGP router automatically retransmits an update packet to its peers after the outbound routing policy for the BGP peers changes.

- A. TRUE
- B. FALSE

Answer: A

NEW QUESTION 202

Which of the following IP addresses can be used on a public network? (Select 2 answers)

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

Answer: CD

NEW QUESTION 206

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