

H12-831

HCIP-Datcom-Advanced Routing & Switching Technology

Legend:

Почти уверенный ответ

Не уверенный ответ

Ответ не проверялся

TRUE / FALSE

1. The display interface GE0/0/0 command output shows that the value of Total Error (total number of error packets at the physical layer on the interface) is not 0. Given this, it can be concluded that the fault still exists.

True

False

2. If a BFD session goes down, a direct link becomes disconnected.

True

False

3. VLAN aggregation allows a sub-VLAN to be mapped to multiple broadcast domains, improving addressing flexibility.

True

False

4. By default, the domain ID of an OSPF process is the same as the process ID. You can run the domain-id command in the OSPF process view to change a domain ID.

True

False

5. BGP/MPLS IP VPN can only use LDP to establish public network tunnels.

True

False

6. MPLS forwarding is always slower than IP forwarding.

True

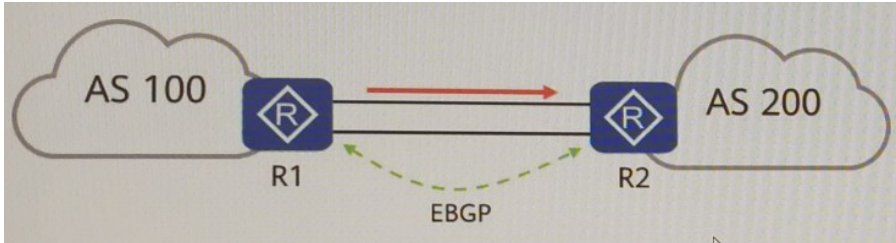
False

7. The major routing policy tools available to BGP include the filter policy and route-policy. The filter-policy can only be used to filter routes, and the route-policy can only be used to modify routes.

True

False

8. As shown in the following figure, by using a route-policy changes the Local-Pref value of the route sent from R1 to R2, the network administrator can control the traffic through which path leaves AS 100.



True

False

9. The IETF extends OSPF functions to support IPv6 networks. The extended OSPF protocol is called OSPFv3, which is compatible with OSPFv2.

True

False

10. OSPFv3 link LSAs are advertised in the entire area.

True

False

11. New IS-IS TLVs are used to carry IPv6 addresses and reachability information to support IPv6 route processing and calculation.

True

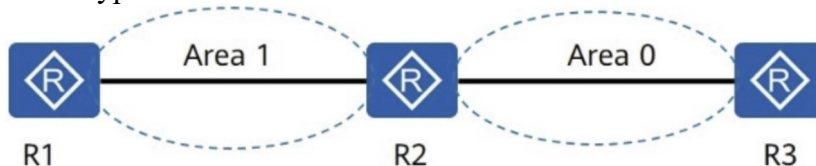
False

12. The display current-configuration command displays the running configurations in memory.

True

False

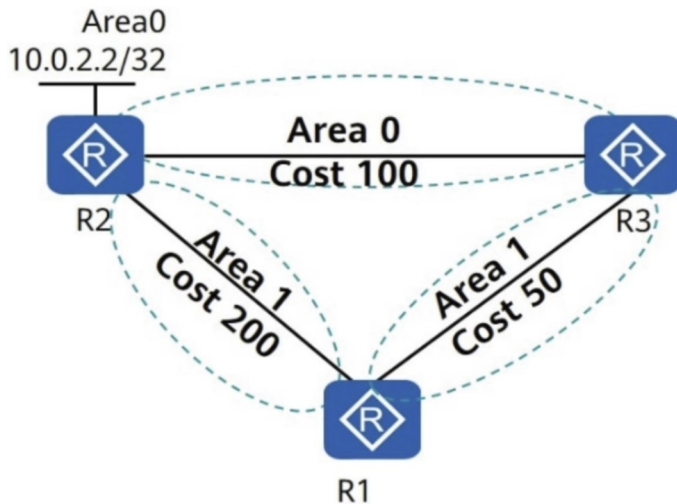
13. In the following figure, all routers are running OSPF. Because R3 is in the backbone area, there are no Type 3 LSAs in the LSDB of R3.



True

False

14. In the following figure, OSPF is enabled on all router interfaces, and link costs are marked. The Loopback0 address of R2 is advertised in area 0. Given this, in area 1, both R2 and R3 use Type 3 LSAs to advertise the route 10.0.2.2/32.



True

False

15. The owner of cutover risks does not involve specific technical personnel who are merely operators, and all risks are borne by the project manager.

True

False

16. When the DHCP relay function is configured on a device, VLANIF interfaces connected to DHCP clients must be bound to a DHCP server group containing the IP address of the DHCP server.

True

False

17. VLAN aggregation technology uses multiple sub-VLANs to isolate broadcast domains and aggregates these sub-VLANs into a logical super VLAN. A company assigns each department to a particular sub-VLAN. A sub-VLAN contains physical interfaces and Layer 3 VLANIF interfaces that can be used to communicate directly with external networks at Layer 3.

True

False

18. In a BGP/MPLS IP VPN scenario, if a PE and CE use OSPF to exchange routing information, domain IDs are used to identify whether the routes imported to VPN instances are from the same OSPF domain.

True

False

19. On an MPLS network, LDP-enabled LSRs exchange LDP messages to discover peers, establish and maintain sessions, and manage labels. To ensure the reliable message transmission, all LDP messages are sent and received based on TCP connections.

True

False

20. BGP routing policies can be used to control the advertisement and acceptance of routes.

True
False

21. During the evolution from OSPFv2 to OSPFv3, LSA formats and functions remain unchanged, except that the network layer addresses in LSAs are changed from IPv4 to IPv6.

True
False

22. BGP4+ uses the Next_Hop attribute in Update packets to carry the next hop address of an IPv6 route.

True
False

23. If the ipv6 enable topology standard command is run in the IS-IS view, IPv4 and IPv6 share the same topology.

True
False

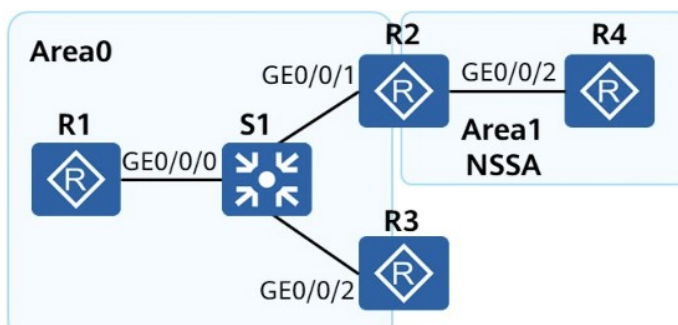
24. In OSPF, an ABR translates all Type 7 LSAs in a Not-So-Stubby Area (NSSA) into Type 5 LSAs.

True
False

25. To speed up link fault detection on an IS-IS network, you can configure BFD for IS-IS.

True
False

26. As shown in the following figure, OSPF is deployed on a campus network, and area 1 is deployed as an NSA. By default, R2 automatically generates a Type 7 LSA carrying default route information and floods it in the NSSA.



True
False

27. Collecting information before a cutover helps you determine whether services are normal before and after the cutover.

True
False

28. The display ip interface GE0/0/0 command can be used to view statistics about the ping packets received by GE 0/0/0.

True
False

29. If a fault occurs, collect and back up fault information for reference. This information can be used when seeking help from Huawei engineers for fault locating and troubleshooting.

True

False

30. Port isolation can be deployed on an Ethernet network to implement both Layer 2 communication and Layer 3 isolation, making the networking more flexible.

True

False

31. In an MPLS domain, LSRs can be classified into ingress, transit, and egress LSRs based on how they process data. For the same FEC, an LSR can be both an ingress and a transit LSR of the FEC.

True

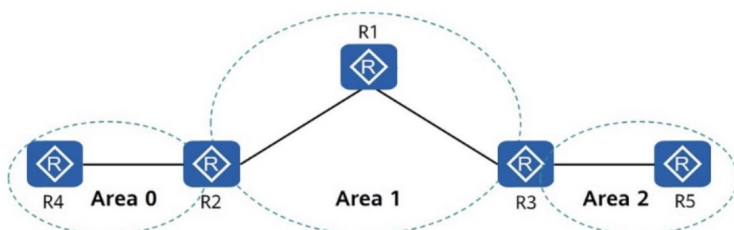
False

32. The OSPFv3 router ID must be set to a 128-bit dotted decimal number.

True

False

33. In the following figure, OSPF is enabled on all router interfaces. Given this, an OSPF virtual link can be established between R4 and R5.



True

False

34. An OSPF LSA header contains multiple fields. Among them, the three-tuple Link State Type, Link State ID, and Adv Router uniquely identify an LSA.

True

False

35. After the reset isis all command is run, the specified IS-IS process is reset, and all involved IS-IS neighbor relationships are re-established, however, IS-IS statistics are not cleared.

True

False

36. A fault is any phenomenon that adversely affects services for users.

True

False

37. In BGP/MPLS IP VPN deployment, the address space of a site that is shared by two VPNs must not overlap with the address spaces used by other sites of the two VPNs, there is no any risk in this scenario.

True

False

38. In a BGP/MPLS IP VPN scenario, an OSPF multi-instance process uses the DN bit to prevent Type 5 LSAs from being looped.

True

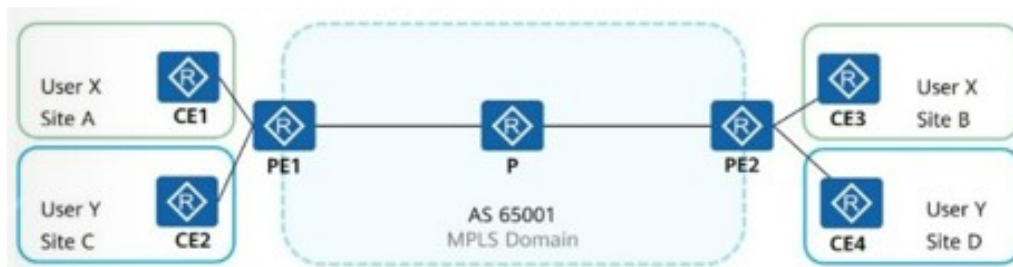
False

39. To ensure security, you can configure authentication in the OSPFv3 process area view.

True

False

40. As shown in the figure, LDP is used to establish LSPs on the BGP/MPLS IP VPN backbone network. To enable two sites of User X to communicate through BGP/MPLS IP VPN, PE1 and PE2 must use loopback interface addresses with 32-bit masks to establish an MP-IBGP peer relationship.



True

False

41. If the device temperature is too high, the fan module must be faulty.

True

False

42. For the same MAC address, a manually configured MAC entry has a higher priority than an automatically generated MAC entry.

True

False

43. Experienced senior engineers can quickly and efficiently rectify faults based only on their experience.

True

False

44. The migration rollback operation can be determined based on the actual migration situation, without the need to plan in advance

True

False

45. BFD can implement millisecond-level link status detection.

True

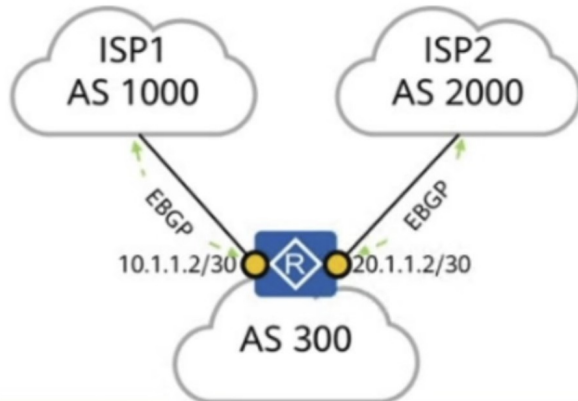
False

46. By default, link status information is isolated between different IS-IS processes on the same router.

True

False

47. An enterprise purchases private lines from two carriers. To optimize lines, the enterprise has BGP deployed to learn the routes of the two carriers. However, the enterprise finds that the traffic volume on the border router increases greatly after BGP is configured. Network engineers find that the traffic of the two carriers is transmitted through the border router of the enterprise. To solve this, the enterprise wants to configure a routing policy to prevent inter-carrier traffic from being transmitted through the border router of the enterprise. Is the configuration shown in the following figure correct?



```

bgp 300
peer 10.1.1.1 as-number 1000
peer 10.1.1.1 as-path-filter AS1000 export
peer 20.1.1.1 as-number 2000
peer 20.1.1.1 as-path-filter AS2000 export
ip as-path-filter AS1000 deny _2000_
ip as-path-filter AS1000 permit .*
ip as-path-filter AS2000 deny _1000_
ip as-path-filter AS2000 permit .*
  
```

True

False

48. The conventional BGP-4 manages only IPv4 unicast routing information. MP-BGP extends BGP-4 to support multiple network layer protocols. MP-BGP support on IPv6 unicast networks is called BGP4+, which uses the Next_Hop attribute to carry the next hop address of a route.

True

False

49. The ipv6 preference command can be run in the IS-IS view to configure a priority for IPv6 routes generated by IS-IS.

True

False

50. OSPF fast convergence is an extended feature designed to speed up route convergence. When the network topology changes, partial route calculation (PRC) recalculates routes only for affected nodes, speeding up route calculation.

True

False

51. On an MPLS network that uses IP at the network layer, the route for a FEC must be present in the IP routing table of an LSR. Otherwise, the label forwarding entry of the FEC is ineffective.

True

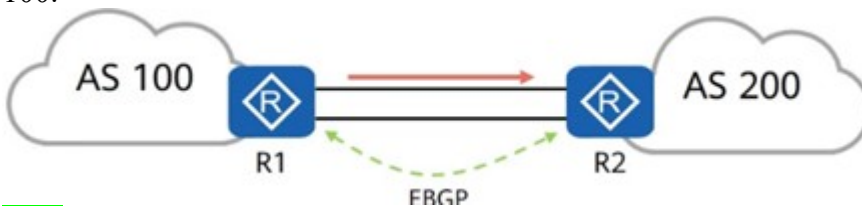
False

52. A large-scale network migration project can be divided into multiple small migration tasks that are relatively independent but also associated with each other.

True

False

53. As shown in the following figure, by using a route-policy changes the MED value of the route sent from R1 to R2, the network administrator can control the traffic through which path leaves AS 100.



True

False

54. To ensure security, authentication can be configured in the OSPFv3 process area view.

True

False

55. In order to prevent hackers from attacking user equipment or network through MAC address, the MAC address of untrusted users can be configured as black hole MAC address to filter out illegal MAC

True

False

56. In OSPF, ABR will convert all Type 7 LSAs in the NSSA area into Type 5 LSAs.

True

False

57. The link state value information between different ISIS processes of multiple routers is considered to be isolated.

True

False

58. The routing policy tools that BGP can use mainly include Filterpolicy and Route-policy. Its Fiterpolicy can only filter routes, and Rote-policy can only modify routes.

True

False

59. BGP4+ carries the next hop address of the IPv6 route through the Next Hop attribute in the Update message.

True

False

60. Configure ipv6 preference in IS-IS protocol view. The function of this command is to configure the preference of IPv6 routes generated by IS-Is protocol.

True

False

61. By default, after an adjacency is established, LDP will establish LSPs based on IP routes with a 32-bit mask.

True

False

62. Before a cutover is performed, hardware or software tests must be carried out to ensure the cutover is successful.

True

False

63. In DU label advertisement mode, if the liberal label retention mode is used, the device reserves labels received from all the LDP peers regardless of whether the LDP peer is the optimal next hop for reaching the destination network.

True

False

64. IPv6 is deployed on a campus network for service tests. In the initial phase of deployment, engineers want to use IPv6 static routes to implement network interconnection. When creating an IPv6 static route, you can specify either or both the outbound interface and next hop.

True

False

65. Migration rollback is to restore the network state back before the migration.

True

False

66. A DHCP relay agent exists between a DHCP server and DHCP clients. If IP addresses in the global address pool of the DHCP server and IP addresses of VLANIF interfaces connecting the DHCP relay agent to clients are on different network segments, a DHCP fault will occur.

True

False

67. Basic QinQ allows you to select an encapsulation mode for the outer VI AN tag based on the service type.

True

False

68. When BGP/MPLS IP VPN is deployed, the VPN route tag of OSPF is not transmitted in the MP-BGP extended community attribute. The VPN route tag is valid only on the Pts that receive MP-BGP routes and generate OSPF LSAs.

True

False

SINGLE CHOISE

1. On R1, the ping -a 10.1.1.1 10.5.16.2 command is run. Which of the following statements about this command is true?
A. The source IP address of the ping packets is 10.1.1.1.
B. The source IP address of the ping packets is the IP address of any local interface on R1.
C. The destination IP addresses of the ping packets are 10.1.1.1 and 10.5.16.2.
D. The source IP address of the ping packets is the address of the outbound interface in the optimal IP route from R1 to 10.5.16.2, and is not 10.1.1.1
2. Which of the following commands is the most effective in checking alarms on a device?
A. display interface brief
B. display alarm
C. display clock
D. display current-configuration
3. It a fault cannot be rectified in a short time on a complex network but the customer needs to restore network availability immediately, which of the following actions is recommended?
A. Tell the customer that this is impossible.
B. Set up an alternative network environment.
C. Communicate with the customer on skipping the faulty node, and set up «in alternative network environment.
D. Attempt to rectify the fault. If the fault cannot be rectified after a period of time, communicate with the customer.
4. Which of the following operations is unnecessary to resolve a failure for hosts in the same VLAN to communicate with each other?
A. Run the display interface interface-type interface-number command in any view to check the status of communication interfaces.
B. Run the display mac-address command on the switch to check MAC address entries including the MAC address, port number, and VLAN ID.
C. Run the display vlan vlan-id command in any view to check whether the VLAN for communication interfaces has been created.
D. Run the display current-configuration command to check the PCB version and the software version of a card.
5. Which of the following statements about DHCP snooping is false?
A. After DHCP snooping is enabled in the view of an interface, it takes effect for all DHCP messages on the interface.
B. After DHCP snooping is enabled globally, the device processes only DHCPv4 messages by default if no parameter is specified.
C. After DHCP snooping is enabled in the view of a VLAN, it takes effect for the VLAN's DHCP messages received by all the interfaces of the device.
D. DHCP snooping can prevent attacks by configuring trusted interfaces.
6. By default, which of the following secure MAC addresses is lost after a device restart?
A. Blackhole MAC address
B. Secure dynamic MAC address
C. Secure static MAC address
D. Sticky MAC address

7. MACsec can provide secure services during MAC-layer data transmitting and receiving. Which of the following services is not provided by MACsec?

A. User data encryption

B. Integrity check

C. Data source authenticity verification

D. Controllability check

8. Which of the following commands can be used to display information about BGP VPNv4 routes and BGP private network routes on a PE?

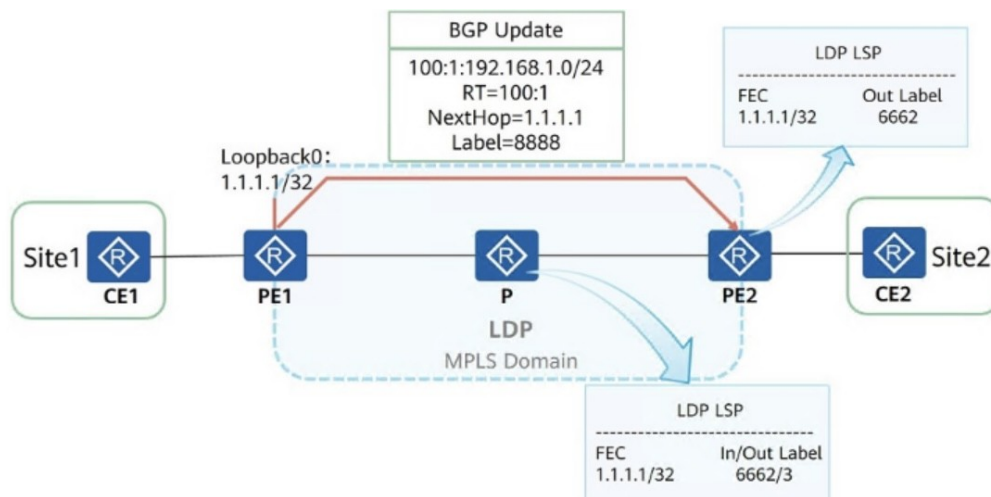
A. display bgp vpnv4 routing-table

B. display vpnv4 bgp routing-table

C. display bgp routing-table address-family vpnv4

D. display bgp routing-table ipv4-family vpnv4

9. As shown in the figure, Site 1 and Site2 need to communicate through a carrier's BGP/MPLS IP VPN. A public network tunnel has been established between PE1 and PE2 (label information is shown in the figure). PE1 has advertised the 192.168.1.0/24 route of Site1 to PE2 through MP-IBGP, and route learning is normal. What is the top label in a data packet transmitted on the link P -> PE1 if the packet is sent by Site2 to 192.168.1.0/24 of Site1?



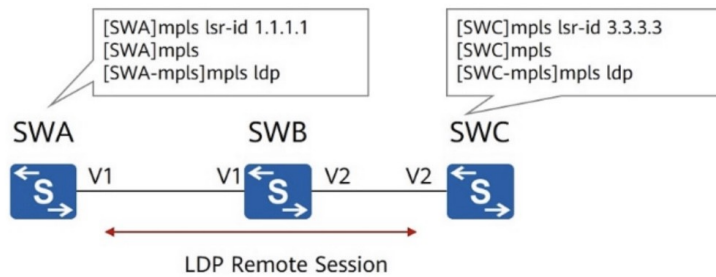
A. 3

B. 6662

C. 6661

D. 8888

10. On the network shown in the following figure, a remote LDP session needs to be established between SWA and SWC. Which of the following statements is true?



- A. The existing configuration is correct
- B. You need to configure the directly-connected interfaces between SWA and SWC to set up TCP connections
- C. You need to create a remote peer and specify an LSR ID for the remote peer
- D. You don't need to specify the LSR ID of the remote peer

11. When MPLS/BGP IP VPN is deployed, which of the following statements is false about BGP route exchange between PEs and CEs?

- A. In a Hub&Spoke scenario, when Hub-CE and Hub-PE run an IGP for communication, EBGP cannot be configured on Spoke-PE or Spoke-CE.
- B. When PEs and CEs use BGP to exchange routing information, you do not need to import private network routes to BGP on PEs.
- C. In a scenario where PEs and CEs use BGP to exchange routing information, if two VPN sites have the same private AS number, the AS number replacement function can be used to replace the AS number in a received private network route with any specified AS number. This prevents routes from being discarded because of repeated AS numbers.
- D. In a CE multi-homing scenario, the BGP AS number replacement function may cause routing loops. BGP SoO can be used to prevent routing loops at a VPN site.

12. Which of the following statements is false about BGP/MPLS IP VPN data forwarding?

- A. A data packet always carries two labels when being transmitted on a BGP/MPLS IP VPN backbone network.
- B. The outer label used to guide data forwarding can be distributed by LDP.
- C. The inner label used to guide data forwarding is distributed by MP BGP.
- D. Packets sent by a PE to a CE are IPv4 packets.

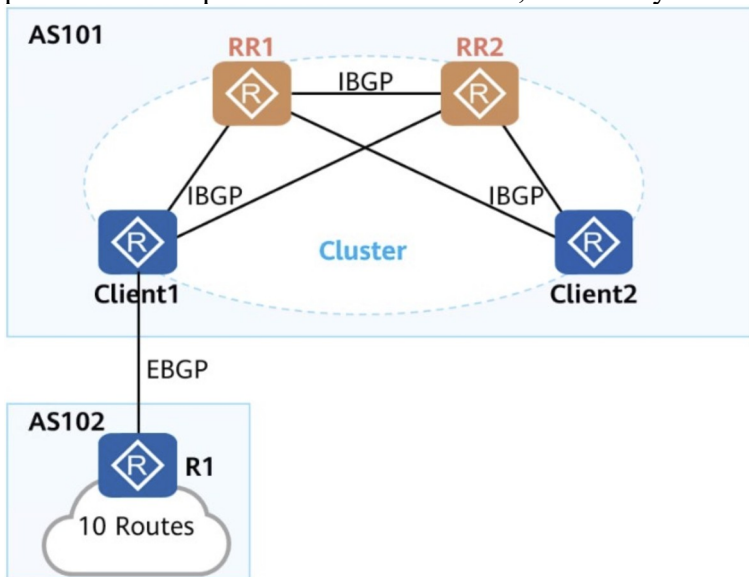
13. Which of the following tools cannot be used to match the number of BGP routes?

- A. Basic ACL
- B. Advanced ACL
- C. IP prefix-list
- D. Community filter

14. Which of the following BGP route attributes cannot be used to control BGP route selection?

- A. Community
- B. ASPath
- C. MED
- D. Originator ID

15. Client1 and Client2 function as the clients of RR1 and RR2, respectively. RR1 and RR2 are in the same cluster, and R1 has imported 10 routes. If BGP configurations are correct and all BGP peer relationships have been established, how many routes will Client2 receive?



- A. 0
- B. 10
- C. 20
- D. 15

16. Referring to the following IPv6 routing information calculated by R4 using IS-IS, which of the following statements is true?

<R4>display ipv6 routing-table protocol isis

Public Routing Table : ISIS

Summary Count : 2

Destination : ::	PrefixLength : 0
NextHop : FE80::2E0:FCFF:FE98:2576	Preference : 15
Cost : 10	Protocol : ISIS-L1
Interface : GigabitEthernet0/0/0	

Destination : ::	PrefixLength : 0
NextHop : FE80::2E0:FCFF:FEA7:5813	Preference : 15
Cost : 10	Protocol : ISIS-L1
Interface : GigabitEthernet0/0/1	

- A. R4 has one IS-IS default route.
- B. R4 has two equal-cost IS-IS default routes.
- C. R4 has no IS-IS routing entry.
- D. R4 has two unequal-cost IS-IS default routes.

17. Which of the following is not the function of OSPFv3 link-LSAs?

- A. Advertises the link-local address of the local interface to other routers attached to the link.
- B. Advertises a list of IPv6 prefixes of the local interface to other routers attached to the link.
- C. Advertises the Options field in the network-LSA originated on the local link to other routers attached to the link.
- D. Advertises the interface ID of the local router to other routers attached to the link.

18. What is the function of the isis IPv6 enable command configured on an interface?

- A. Activates IPv6 IS-IS process 1 on the interface.
- B. Activates IPv6 IS-IS process 2 on the interface.
- C. Activates IPv6 IS-IS process 3 on the interface.
- D. Activates IPv6 IS-IS process 10 on the interface.

19. Compared with the header of an OSPFv2 packet, which of the following fields is added to the header of an OSPFv3 packet?

- A. Instance ID
- B. IPv6 Auth Type
- C. Link ID
- D. IPv6 Router ID

20. Which of the following statements is true about the result of the ipv6 enable topology ipv6 command configured in the IS-IS view?

- A. SPF calculation is performed in IPv4 and IPv6 topologies separately.
- B. IPv6 SPF calculation is not supported.
- C. IPv4 and IPv6 use the same topology for SPF calculation.
- D. It does not have any meaning.

21. Which of the following is the purpose of configuring LSP fragmentation on an IS-IS device?

- A. Enable the device to support more IS-IS routes.
- B. There is no practical purpose.
- C. Disable the device from learning IS-IS link state information.
- D. Disable the device from establishing IS-IS neighbor relationships.

22. If multiple redundant links are available on an IS-IS network, multiple equal-cost routes may exist. Which of the following statements is false about equal-cost routes on the IS-IS network?

- A. If load balancing is configured, traffic will be evenly distributed among these links.
- B. You can specify a preference for each equal-cost route. The route with the highest weight is preferred, and the other routes are used as backup routes.
- C. If the number of equal-cost routes on the network is greater than that configured using the maximum load-balancing command and these routes have the same preference, the routes whose next hops have larger system IDs are preferentially selected for load balancing.
- D. After preferences are configured for equal-cost routes, an IS-IS device does not forward traffic in load balancing mode to a specific destination network segment, rather, it forwards traffic to the next hop with the highest weight.

23. The following information is displayed during OSPF troubleshooting. Based on this information, which of the following is the cause of the failure in establishing an OSPF adjacency relationship?

```
OSPF error statistics
Interface: GigabitEthernet0/0/0 (10.0.12.2)
General packet errors:
0   : Bad version                0   : Bad checksum
0   : Bad area id                0   : Bad authentication type
0   : Bad authentication key     0   : Unknown neighbor
0   : Bad net segment            0   : Extern option mismatch
0   : Router id confusion

HELLO packet errors:
2   : Netmask mismatch           0   : Hello timer mismatch
0   : Dead timer mismatch        0   : Invalid Source Address
```

- A. Hello packets are sent at different intervals.
- B. The IP address masks of the interfaces are inconsistent.**
- C. The area types are inconsistent.
- D. The authentication passwords are inconsistent.

24. If the isis timer hello 5 level-2 command is run on an interface, which of the following statements is true?

- A. The interval for sending Level-1 LAN IIHs on the interface is 5s.
- B. The interval for sending Level-2 LAN IIHs on the interface is 5s.**
- C. The interval for sending Level-1 and Level-2 LAN IIHs on the interface are both 5s.
- D. The interval for sending Level-2 CSNPs on the interface is 5s.

25. Which of the following items is not involved in dynamic data collection before a migration is performed?

- A. SNMP version**
- B. Routing protocol status
- C. ARP entries
- D. Interface status

26. Which of the following statements is true about ping and tracer functions?

- A. During a ping operation, the local end sends ICMP Echo Request packets to the remote end to detect the bidirectional reachability between two ends.**
- B. Tracer is sure to trace all the IP address of each hop from the source to the destination.
- C. Even if a ping operation verifies that the remote end is reachable to the local end, it does not necessarily mean that the local end is reachable to the remote end.
- D. Ping and tracer have the same functions, despite the difference in their names.

27. Assuming that the "display current-configuration" command displays IS-IS configurations, while the "display saved-configuration" command does not display IS-IS configurations, which of the following statements is true?

- A. The Is-IS configurations that are running in the memory have not been saved to the flash memory.**
- B. The IS-IS configurations that are running in the memory have been saved to the flash memory.
- C. No IS-IS commands are run.
- D. The IS-IS configurations that are running in the flash memory have not been saved to the memory.

28. A network administrator fails to access devices on the internal network through Telnet. Which of the following causes is the most impossible?

- A. The route is unreachable, and the client fails to establish a TCP connection with the server.
- B. The number of login users reaches the upper limit.
- C. An ACL is bound in the VTY user interface view.
- D. The protocol inbound all command is configured in the VTY user interface view.

29. After the sticky MAC function is enabled on an interface, which of the following is the number of MAC addresses that the interface can learn by default?

- A. 1
- B. 5
- C. 10
- D. 15

30. What is the default aging time of entries in seconds in the MAC address table on a Huawei switch?

- A. 5
- B. 300
- C. 400
- D. 500

31. Which of the following statements is false about a multi-VPN-instance CE (MCE)?

- A. An MCE can access multiple VPN instances in a BGP/PLS IP VPN scenario, reducing customer device costs.
- B. There must be multiple physical links between an MCE and a PE to isolate VPN instances.
- C. On an MCE, you need to create a routing table for each VPN and bind interfaces with VPNs.
- D. Users that connect to the same MCE but belong to different VPN instances cannot communicate with each other.

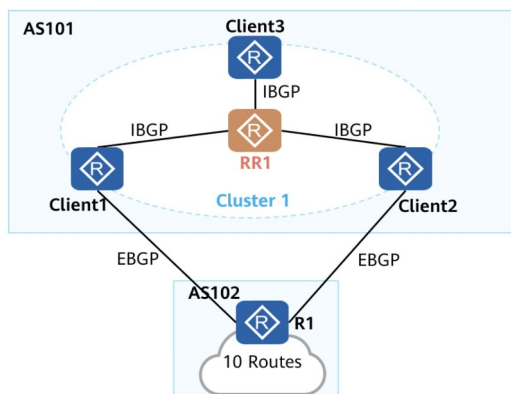
32. MPLS performs different actions on labels. What is the meaning of the pop action?

- A. The top label is removed from the MPLS label stack.
- B. The top label is added to the MPLS label stack.
- C. The top label is replaced with another value.
- D. The top label is replaced with the label of another group.

33. The BGP ORF function can be used to control the maximum number of routes that can be sent by a BGP peer. To achieve this, a BGP router sends the list of routes to be filtered to its BGP peer. Which of the following tools is used to send such the route list to BGP peers?

- A ACL
- B. IP prefix-list
- C. Filter-policy
- D. Route-policy

34. Client1, Client2, and Client3 all function as the clients of RR1, and R1 has imported 10 routes. If BGP configurations are correct and all BGP peer relationships have been established, how many routes will be in the BGP routing table of Client3 in the end?

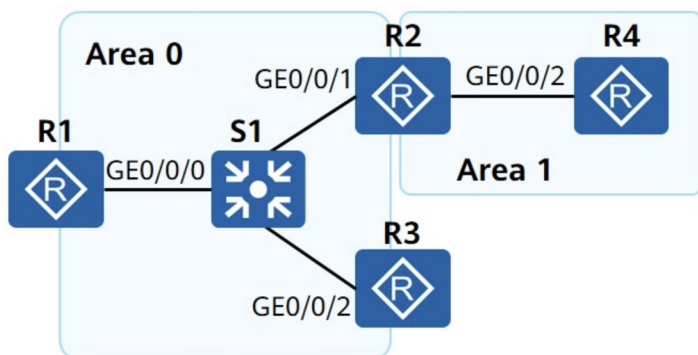


- A. 0
- B. 10
- C. 20
- D. 15

35. In OSPFv3, which of the following types of LSAs can be flooded in the entire AS?

- A. AS-external-LSA
- B. Inter-Area-Prefix-LSA
- C. Link-LSA
- D. Intra-Area-Prefix-LSA

36. On the campus network shown, IPv6 is deployed for service tests. Four routers are deployed on the network, and these routers use OSPFv3 for network connectivity. Which of the following statements about LSAs generated by the OSPFv3 network is false?

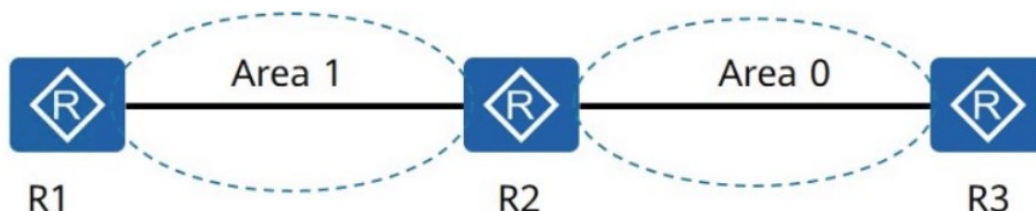


- A. R1 generates Router-LSAs describing interface information and receives Router-LSAs generated by R2 and R3.
- B. The LSDB of R1 contains Network-LSAs generated by R3, indicating that R3 may be the DR on the local link.
- C. R2 functions as an area border router (ABR), generates Inter-Area-Prefix-LSAs that describe the IPv6 address prefix of area 1, and advertises these Inter-Area-Prefix-LSAs to R1 and R3.
- D. R1 receives two Link-LSAs generated by R2. The two Link-LSAs describe information about the two links connected to R2.

37. In BGP4+, what is the content of the next hop network address field carried in the MP_REACH_NLRI attribute of an Update packet?

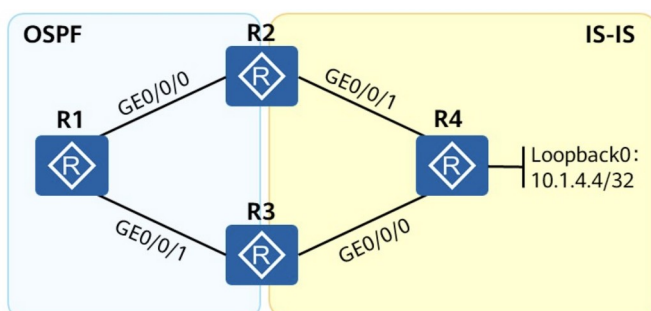
- A. It must be a link-local address.
- B. It must be a global unicast address.
- C. It can be only a link-local address.
- D. The link-local address and global unicast address can be carried at the same time.

38. In the following figure, all routers are running OSPF. Given this, which of the following statements is true?



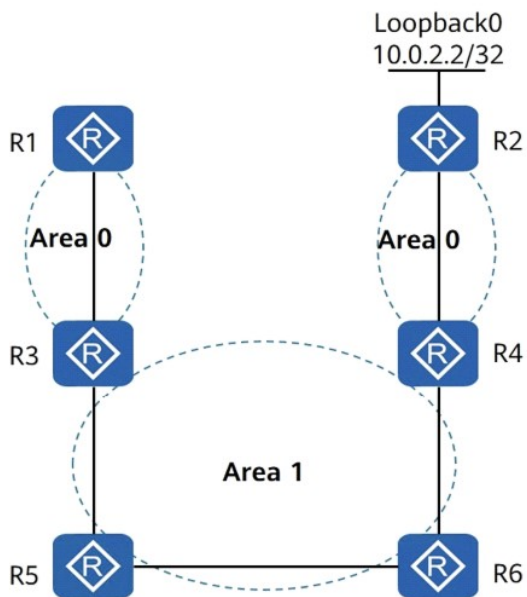
- A. R2 forwards the Router-LSAs generated by R1 to R3.
- B. R2 forwards the Router-LSAs generated by R3 to R1.
- C. R2 generates Router-LSAs only in area 0.
- D. R2 generates Router-LSAs in both area 1 and area 0.

39. As shown in the following figure, an engineer tests network interconnection between two branches. To implement network interconnection, OSPF is deployed on R1, R2, and R3 of branch 1, and IS-IS is deployed on R2, R3, and R4 of branch 2. Which of the following operations needs to be performed to allow R1 to access R4's loopback interface address?



- A. No configuration is required.
- B. Run the default-route-advertise command only in the OSPF view on R2.
- C. Run the default-route-advertise command only in the IS-IS view on R2.
- D. Run the default-route-advertise command in both the OSPF and IS-IS views on R2.

40. In the following figure, OSPF is enabled on all router interfaces. Given this, which of the following statements is true?



- A. Type 1 LSAs generated by R2 in area 0 contain the route 10.0.2.2/32.
- B. Type 2 LSAs generated by R2 in area 0 contain the route 10.0.2.2/24.
- C. Type 3 LSAs generated by R2 in area 0 contain the route 10.0.2.2/32.
- D. Type 5 LSAs generated by R2 in area 0 contain the route 10.0.2.2/32.

41. To rectify a VRRP group two-master fault, run the display this command on VLANIF interfaces on both ends of the VRRP group. Which of the following operations is not performed?

- A. Check whether the interface IP addresses are on the same network segment.
- B. Check whether the VLANIF interfaces have the same VRRP group ID.
- C. Check whether the virtual IP address is the same on the VLANIF interfaces in the VRRP group.
- D. You do not need to check whether the interval for sending VRRP Advertisement packets is the same on the VLANIF interfaces.

42. Which of the following commands is used to view files in the flash memory?

- A. dir sdo:
- B. dir flash:
- C. dir sd1:
- D. display patch-information

43. Which of the following statements regarding SPF neighbor relationship faults is false?

- A. The ExStart state indicates that two neighbor routers have inconsistent MTUs or the same OSPF Router ID (RID).
- B. For non-DR and non-BDR routers on an Ethernet link, the 2-Way state is acceptable.
- C. The Init state indicates that the router has received Hello packets from its neighbors but the received Hello packets do not contain the OSPF RID of the receiving router.
- D. The Attempt state indicates that the router does not send unicast Hello packets to configured neighbors.

44. On a small- and medium-sized network where OSPF is deployed, if only direct routes exist in the routing table of a device, which of the following configurations is unlikely to be a cause?

- A. Incorrect routing protocol
- B. Incorrect interface address
- C. Low user privilege
- D. Incorrect route-policy

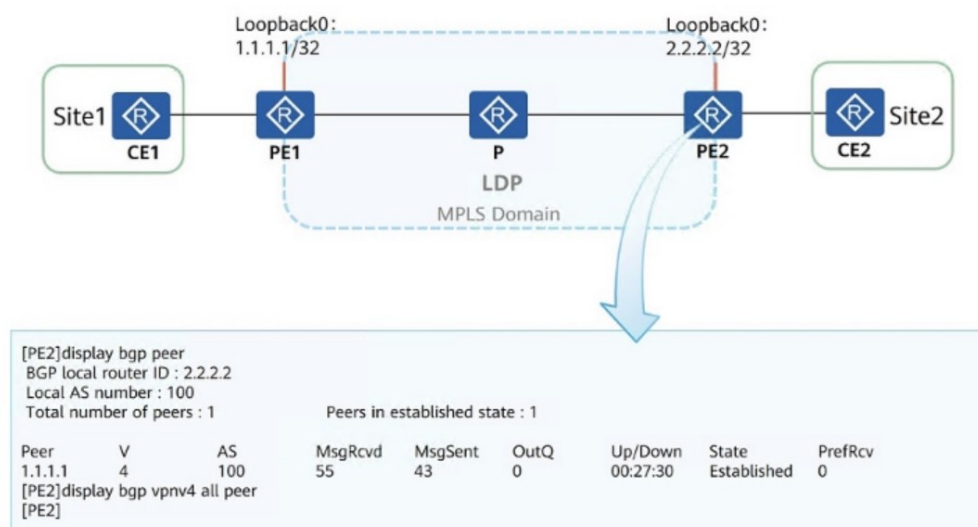
45. Which of the following security protection actions is not used to safeguard MAC addresses?

- A. Restrict
- B. Protect
- C. Re-mark
- D. Shutdown

46. VLAN-based MAC address flapping detection is configured. If MAC address flapping occurs, actions to be taken on an interface can be configured as required. Which of the following actions cannot be configured?

- A. Alarm sending
- C. Traffic filtering
- B. Interface blocking
- D. MAC address blocking

47. As shown in the figure, BGP/MPLS IP VPN is deployed. PE1 and PE2 establish an MP-BGP peer relationship through the loopback0 interfaces. After the configuration is complete, CE1 and CE2 can no longer learn routes from each other. Refer to the peer information on PE2. What is the most possible cause of this problem?



- A. No LSP is established between PE1 and PE2.
- B. PE1 or PE2 is not configured as a BGP peer in the BGP-VPNv4 unicast address family view.
- C. VPN instance parameters are incorrectly configured on PE1 or PE3.
- D. The routing protocol for communication between a CE and PE1 or PE2 is incorrectly configured.

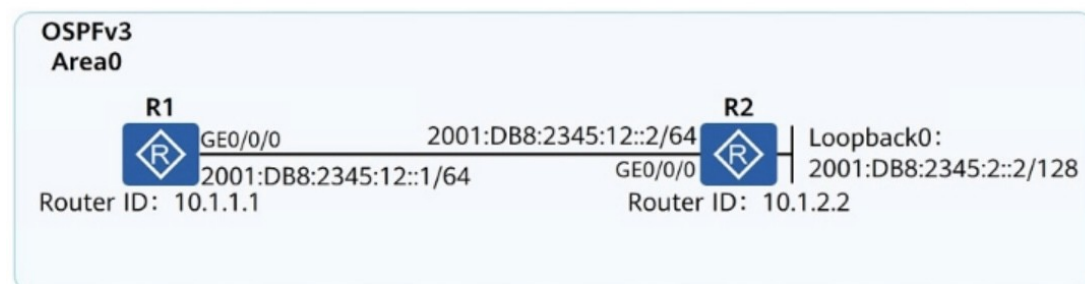
48. MPLS supports forwarding equivalence class (FEC). Which of the following cannot be used as a FEC allocation standard?

- A. Fragment offset
- B. Destination address
- C. Application protocol
- D. Class of Service (CoS)

49. OSPFv2 is an IGP running on IPv4 networks, whereas OSPFv3 is an IGP running on IPv6 networks. OSPFv2 and OSPFv3 have similar LSA types, but their LSA functions are slightly different. Which of the following is not an OSPFv3 LSA type?

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

50. On the network shown, an engineer uses two routers to test IPv6 services. OSPFv3 is used for IPv6 network connectivity. It is expected that R1 can access the loopback interface address of R2. The engineer checks the OSPFv3 routing table on R1 and finds that there is no route to the loopback interface address of R2. Which of the following is not a possible cause for this?



```
[R1]display ospfv3 routing
```

Codes : E2 - Type 2 External, E1 - Type 1 External, IA - Inter-Area, N - NSSA, U - Uninstalled

OSPFv3 Process (1)

Destination	Metric	Next-hop
2001:DB8:2345:12::/64	1	directly connected, GigabitEthernet0/0/1

- A. The router ID used by the OSPFv3 process is not configured on R2.
- B. R2 does not advertise the IP address of the loopback interface in area 0 through the "network" command.
- C. OSPFv3 is not enabled on the loopback interface of R2.
- D. R2 advertises the loopback interface address to an OSPFv3 process other than that on the directly connected interface of R2.

51. What is the function of the `isis ipv6 cost 50` command on an interface?

- A. Sets the IS-IS IPv6 Level-1 cost of the interface to 50.
- B. Sets the IS-IS IPv6 Level-2 cost of the interface to 50.
- C. Sets both the IS-IS IPv6 Level-1 and Level-2 costs of the interface to 50.
- D. Sets both the IS-IS IPv6 Level-1 and Level-2 costs of the interface to 60.

52. What can be determined from the following figure?

```
[R1]display isis brief
```

```
ISIS Protocol Information for ISIS(1)
```

```
-----
```

```
SystemId: ee8c.a0c2.baf1    System Level: L2
```

```
Area-Authentication-mode: NULL
```

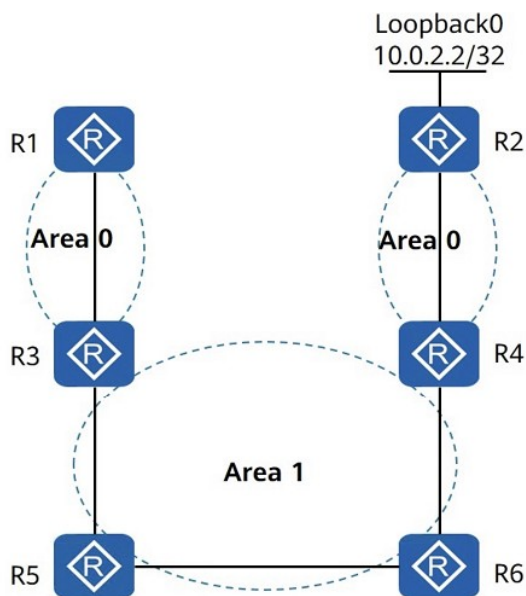
```
Domain-Authentication-mode: NULL
```

- A. R1 is a Level-1 device.
- B. R1 is a Level-2 device.
- C. Area authentication is configured on R1.
- D. Routing domain authentication is configured on R1.

53. Which of the following commands is used to adjust the cost of an IS-IS interface?

- A. isis circuit-level
- B. isis circuit-type
- C. isis cost
- D. isis timer hello

54. In the following figure, OSPF is enabled on all router interfaces. Given this, which of the following statements is true?



- A. Type 3 LSAs generated by R4 in area 1 contain the route 10.0.2.2/32.
- B. Type 3 LSAs generated by R6 in area 1 contain the route 10.0.2.2/32.
- C. Type 3 LSAs generated by R3 in area 0 contain the route 10.0.2.2/32.
- D. R5 does not generate Type 3 LSAs in area 1.

55. Which of the following checks is not performed when preparing hardware for a migration?

- A. Power-on test
- B. Blank panel color check**
- C. Board running status test
- D. Cable connectivity test

56. What is the function of the display current-configuration | include vlan command?

- A. Displays all the configurations that contain the keyword "VLAN."**
- B. Displays information about the physical interfaces bound to each VLAN.
- C. Displays the VLANs that have been created.
- D. Displays the IP addresses of VLANIF interfaces.

57. During EBGp peer relationship troubleshooting, it is found that two directly connected devices set up connections using loopback interfaces. Therefore, the display current-configuration configuration bgp command is executed to check the configuration of peer ebgp max-hop hop count. Which of the following statements is correct?

- A. The hop count must be greater than 1.**
- B. The hop count must be greater than 2.
- C. The hop count must be greater than 15.
- D. The hop count must be greater than 255.

58. Which of the following statements is true about sites in the BGP/MPLS IP VPN architecture?

- A. Two geographically separated networks that are far away from each other definitely belong to different sites.
- B. A site is a group of IP devices. A network consisting of one host cannot be called a site.
- C. Terminals connected to an operator's network through the same CE may belong to different sites.
- D. The address spaces of sites belonging to the same VPN must not overlap.**

59. Which of the following statements is true about static LSP configuration on an MPLS network?

- A. When an LSR functions as an ingress, only outgoing labels need to be configured, and the label space is 16 to 1048575.
- B. When an LSR functions as a transit node, both outgoing and incoming labels need to be configured, and their label spaces are both 16 to 1023.
- C. When an LSR functions as a transit node, both outgoing and incoming labels need to be configured. The space for incoming labels is 16 to 1023. and that for outgoing labels is 16 to 1048575.
- D. When an LSR functions as an egress, only incoming labels need to be configured, and the label space is 16 to 1023.**

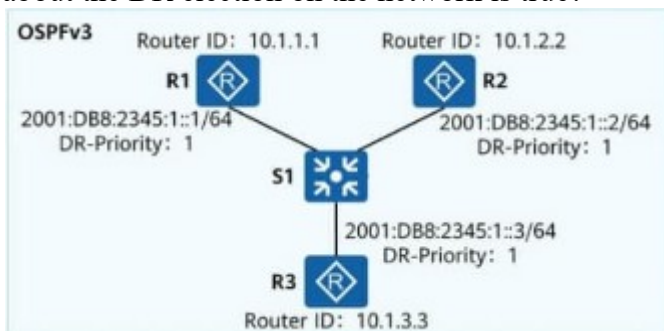
60. Which of the following statements regarding MPLS label space is false?

- A. The label space 16-1023 is shared by static LSPs and static CR-LSPs
- B. The label space 1024 and higher is shared by dynamic signaling protocols, such as LDP, RSVP-TE, and MP-BGP
- C. When the last hop receives packets with the label value 0, it directly drop the packets**
- D. When the penultimate-hop LSR performs label switching, if it finds that the label value after the switching is 3, then it pops out the label and sends the packet to the last hop

61. Which of the following regular expressions can be used to match only the BGP routes that pass through AS200 and then AS300?

- A. ^200|^300
- B. [200 300]
- C. 200\$|300\$
- D. _(200 300)_

62. OSPFv2 is an IGP running on IPv4 networks, whereas OSPFv3 is an IGP running on IPv6 networks. OSPFv3 works similarly to OSPFv2. For example, they follow the same DR and BDR election rules. On the network shown, an engineer uses three routers to test IPv6 services. The engineer wants to use OSPFv3 for IPv6 network connectivity. Which of the following statements about the DR election on the network is true?



- A. R1 becomes the DR after the network converges.
- B. R3 becomes the DR after the network converges. R1 is restarted, and then the network converges again.
- C. After the network converges, the engineer changes R1's priority to 100 and R2's priority to 10. R3's priority remains at the default value. After the network converges again R1 becomes the DR and R2 the BDR.
- D. After the network converges. R4 with a priority of 150 is added to the broadcast domain. After the network converges again. R4 becomes the DR.

63. The IS—IS neighbor relationship is not established between R3 and R1. Referring to the following information, what is the possible cause?

[R3]display isis error

Hello packet errors:

... ..

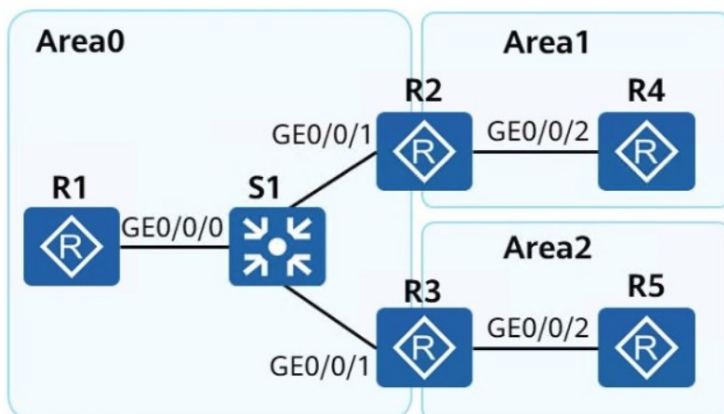
Repeated System ID	: 0	Bad Circuit Type	: 16
Longer packet	: 0	More Area Addr	: 0
Longer Area Addr	: 0	Bad Area Addr TLV	: 0
More IF Addr	: 0	Bad Formatted IF TLV	: 0
Mismatched Area Addr(L1): 0		Mismatched Proto	: 0
SNPA Conflicted(LAN)	: 0	Mismatched Level	: 0
Mismatched Max Area Addr: 0		Bad Authentication	: 0

... ..

[R3]

- A. The system IDs of R3 and R1 are the same.
- B. The IS-IS levels of R3 and R1 do not match.
- C. The circuit types of the interfaces connecting R3 and R1 do not match.
- D. The IIH authentication between R3 and R1 fails.

64. OSPF is deployed on a campus network to implement network interconnection. An engineer configures R2 as shown in the following figure. Which of the following statements is false about LSAs on the OSPF network?



```

[R2] acl 2000
[R2-acl-basic-2000] rule deny
[R2-acl-basic-2000] quit
#
[R2] ospf
[R2-ospf-1] area 1
[R2-ospf-1-area-0.0.0.1] filter 2000 import
[R2-ospf-1-area-0.0.0.1] quit
[R2-ospf-1] default-route-advertise always

```

- A. Type 3 LSAs are not flooded in area 1.
- B. Type 3 LSAs are not flooded in area 2.
- C. Type 5 LSAs are flooded in area 1.
- D. Type 5 LSAs are flooded in area 2.

65. Based on the configuration in the following figure how many interfaces on R4 are advertised into IS-IS?

```

<R4>display isis interface

Interface information for ISIS(1)
-----

```

Interface	Id	IPV4.State	IPV6.State	MTU	Type	DIS
GE0/0/0	001	Up	Down	1497	L1/L2	No/No
GE0/0/1	002	Up	Down	1497	L1/L2	No/No
Loop0	001	Up	Down	1500	L1/L2	--

```

<R4>

```

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

66. Which of the following operations is not involved in the middle phase of a migration?

- A. Service test
- B. Migration preparation
- C. On-site monitoring
- D. Migration implementation

67. What is the router ID length supported by OSPFv3?

- A. 32 bits
- B. 128 bits
- C. 64 bits
- D. 100 bits

68. If network administrator A wants to use an ACL to match only routes 1, 3, 5, and 7 shown in the following figure, what is the minimum number of ACL rules that must be configured?

Num	Route
1	10.0.1.0/24
2	10.0.2.0/24
3	10.0.3.0/24
4	10.0.4.0/24
5	10.0.5.0/24
6	10.0.6.0/24
7	10.0.7.0/24

- A. 1
- B. 2
- C. 3
- D. 4

69. Which of the following statements is false?

- A. LSPs are classified into static and dynamic LSPs. A static LSP is manually configured an administrator. A dynamic LSP is dynamically established using and label distribute protocol
- B. When labels are allocated manually, ensure that the outgoing label of an upstream node is the same as the incoming label of the downstream node.
- C. LSPs created by static Distribution labels can be dynamically adjusted according to network topology changes, without the need for administrator information.
- D. Dynamic LSPs are established using label distribution protocols, such as MP-BGP, RSVP-TE, and LDP.

70. Man-in-the-middle attacks or IP/MAC Spoofing attacks are common on intranets and will cause information leakage. Which configuration method can prevent these....attaks?

- A. Configure the trusted or untrusted interface.
- B. Limit the maximum number of MAC addresses that can be learned on a switch interface.
- C. Configure DHCP snooping to check the CHADDR field carried in a DHCP Request packet.
- D. Configure association between DHCP snooping and IPSG or DAI on the switch.

71. Which statement regarding the following configuration is false?

```
[Huawei]dhcp enable
```

```
[Huawei]inte GigabitEthernet 0/0/1
```

```
[Huawei- GigabitEthernet 0/0/1]dhcp option82 insert enable
```

```
[Huawei- GigabitEthernet 0/0/1]dhcp snooping enable
```

```
[Huawei- GigabitEthernet 0/0/1]dhcp snooping trusted
```

- A. Configure GigabitEthernet 0/0/1 as a trusted interface
- B. If the DHCP request packet received by GigabitEthernet 0/0/1 does not contain the SubOption1 information of Option 82, the device generates Option 82 and inserts it into the packet.
- C. Enable DHCP snooping to defend against bogus DHCP server attacks
- D. Enable DHCP snooping to defend against bogus ARP spoofing attacks

72. Regarding BGP/MPLS IP VPN data forwarding, which of the following description is wrong?

- A. When data is transmitted on the BGP/MPLS IP VPN backbone network, it always carries two layers of labels
- B. The inner label during data forwarding is assigned by MP-BGP
- C. The outer label during data forwarding can be allocated by LDP
- D. The data sent by the PE to the CE is an IPv4 packet

73. Which of the following statements about IPSG is false?

- A. IPSG can defend against IP address spoofing attacks.
- B. IPSG is a source IP address filtering technology based on Layer 3 interfaces.
- C. IPSG can be used to prevent hosts from changing IP addresses.
- D. IPSG can be used to check the validity of IP packets. If IP packets are invalid, the device reports an alarm to an NMS.

74. How many bits does an MPLS label field have?

- A. 8
- B. 3
- C. 1
- D. 20

75. What can be determined from the following figure?

```
<R4>display isis peer verbose
```

Peer information for ISIS(1)

System Id	Interface	Circuit Id	State	HoldTime	Type	PRI
ee8c.a0c2.baf3*	GE0/0/0	ee8c.a0c2.baf3.01	Up	7s	L1	64

MT IDs supported : 0(UP) 2(UP)

Local MT IDs : 0 2

Area Address(es) : 49.0022

Peer IP Address(es) : 10.1.34.1

Peer IPv6 Address(es): FE80::2E0:FCFF:FE98:2576

Uptime : 04:04:02

Adj Protocol : IPV4 IPV6

Peer System Id : ee8c.a0c2.baf3

- A. Only an IPv4 IS-IS neighbor relationship is established between R4 and ee8c.a0c2.baf3.
- B. Only an IPv6 IS-IS neighbor relationship is established between R4 and ee8c.a0c2.baf3.
- C. Both IPv4 and IPv6 IS-IS neighbor relationships are established between R4 and ee8c.a0c2.baf3.
- D. R4 does not have any IS-IS neighbors.

76. Which of the following statements does not cause the flapping of a VRRP group?

- A. inconsistent preemption delay settings
- B. Packet loss on an interface of the backup device
- C. Flapping on the link transmitting VRRP Advertisement packets
- D. Too small interval between Advertisement packet transmissions

77. QinQ technology expands the VLAN space by adding another 802.1 Q tag to a packet with an 802.1Q tag. Which of the following statements about QinQ is false?

- A. QinQ technology can be used to transparently transmit private network VLAN packets over the public network.
- B. Basic QinQ is implemented based on interfaces.
- C. QinQ increases the maximum number of supported VLANs to 4095 x 4095 on a device.
- D. Selective QinQ can add different outer VLAN tags to packets according to different inner VLAN tags, classifying user VLANs more precisely.

78. In the LDP session establishment process, the initiator sends an Initialization message for parameter negotiation. Which message will be sent by the responder if it does not accept negotiation parameters?

- A. Error Notification Message
- B. Hello Message
- C. Keepalive Message
- D. Initialization Message

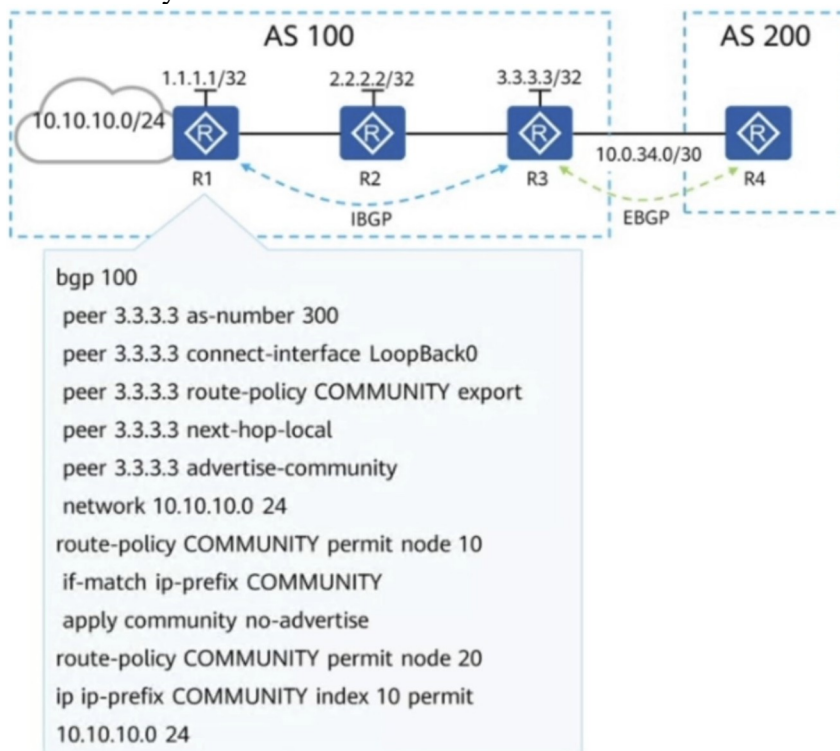
79. Which of the following statements is false about a BGP/MPLS IP VPN?

- A. A BGP/MPLS IP VPN consists of customer edges (CEs), provider edges (PEs), and providers (Ps). PEs and Ps are carrier devices, whereas CEs are BGP/MPLS IP VPN customer devices.
- B. Inter-site communication can be implemented through VPN. A site can only belong to only one VPN.
- C. In most cases, CEs are unaware of VPNs and do not need to support MPLS or MP-BGP.
- D. Ps only need to provide basic MPLS forwarding capabilities and do not need to maintain VPN-related information

80. In a multi-level RR scenario, a level-1 RR is connected to a large number of level-2 RRs. As a result, the BGP routing table of the level-1 RR may overflow. Which of the following methods can be used to reduce the risk of BGP routing table overflow on the level-1 RR?

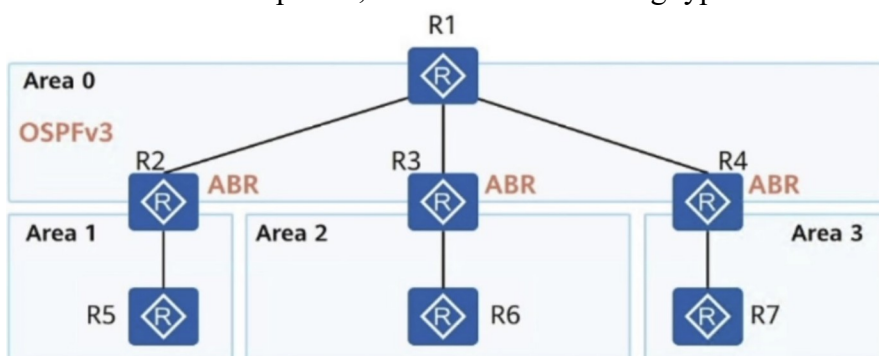
- A. ORF
- B. Route control
- C. Route summarization
- D. Setting the same cluster ID for RRs

81. Assume that a BGP peer relationship has been established. The configuration of R1 is shown in the following figure. Which of the following routers is the farthest that route 10.10.10.0/24 advertised by R1 can be transmitted to?



- A. R1
- B. R2
- C. R3
- D. R4

82. In the topology shown in the following figure, OSPFv3 runs on the entire network. If no external routes are imported, which of the following types of LSAs will not be generated on R1?



- A. Inter-Area-Router LSA
- B. Link-LSA
- C. Intra-Area-Prefix-LSA
- D. Inter-Area-Prefix-LSA

83. Which of the following statements is true about the differences between NSR and NSF?

- A. NSR requires the collaboration of neighboring routers.
- B. NSF requires the collaboration of neighboring routers.
- C. NSF does not require the collaboration of neighboring routers.
- D. Both NSR and NSF require the collaboration of neighboring routers.

84. In the same environment, engineers A and B run the tracert command with the same destination address; however, different paths are displayed. Which of the following statements may be the possible cause?

Engineer A:

```
<R1>tracert -A 172.16.1.1 172.16.1.4
```

```
1 10.1.12.2 10 ms 10 ms 10 ms
```

```
2 10.1.24.2 30 ms 10 ms 10.1.34.2 30 ms
```

Engineer B:

```
<R1>tracert -A 172.16.1.1 -P 33436 172.16.1.4
```

```
1 10.1.12.2 20 ms 20 ms 20 ms
```

```
2 10.1.34.2 30 ms 40 ms 20 ms
```

A. The destination port numbers of the UDP packets for the two tracert operations are different. As a result, these packets are hashed to different equal-cost next hops.

B. Engineer A performed the operation incorrectly.

C. Engineer B performed the operation incorrectly.

D. The results are abnormal. The operating system of the device is faulty.

85. Which of the following statements is false about a sham link?

A. To ensure that VPN traffic is forwarded through an MPLS backbone network, the route cost of a sham link must be smaller than the OSPF route cost of a backdoor link.

B. A sham link is considered a link between two VPN instances. Each VPN instance must have an endpoint address of a sham link, which must be a loopback interface address with a 32-bit mask in the VPN address space on a PE.

C. The endpoint address of a sham link is advertised by BGP as a VPNv4 address. Routes that pass through a sham link can also be imported to BGP as VPNv4 routes.

D. A sham link can be configured in any area and needs to be manually configured. In addition, a local VPN instance must have a route to the destination address of the sham link (the endpoint address of the sham link on the remote PE).

86. The following figure shows the attributes of three routes. Assume that the next hops of the three routes are all reachable. After the three routes reach a BGP router in sequence, which route will BGP preferentially select by default?

Name	Prefix	AS_PATH	MED	IGP Cost
Route A	10.1.1.0/24	3	0	12
Route B	10.1.1.0/24	12	150	11
Route C	10.1.1.0/24	12	100	13

A. Route A

B. Route B

C. Route C

87. On the network shown, an engineer uses two routers to test IPv6 services by running BGP4+ to simulate the communication between the enterprise headquarters and a branch. Which of the following statements about IPv6 route transmission between two devices is false?



- A. During transmission, these routes carry well-known mandatory attributes such as AS_Path.
- B. During route transmission, the Next Hop attribute must be an IPv6 global unicast address.**
- C. BGP4+ uses Update messages to transmit routing information between peers.
- D. If an Update message carries the MP REACH NLRI attribute, it means that the advertised route is a reachable route.

88. What can be determined from the following figure?

<R3>display ipv6 routing-table isis

```

... ..
Destination : 2082:EDFC:DDCC::B824:0    PrefixLength : 127
NextHop     : FE80::2E0:FCFF:FE45:6A3E   Preference  : 15
Cost        : 20                        Protocol    : ISIS-L1
Interface   : GigabitEthernet0/0/0       Flags       : D

Destination : 2082:EDFC:DDCC::B891:0    PrefixLength : 127
NextHop     : FE80::2E0:FCFF:FE50:406F   Preference  : 15
Cost        : 20                        Protocol    : ISIS-L2
Interface   : GigabitEthernet0/0/1       Flags       : D
... ..
  
```

- A. R3 must be a Level-1 device.
- B. R3 must be a Level-2 device.
- C. R3 must be a Level-1-2 device.**
- D. The device role of R3 cannot be determined.

89. The DHCP protocol can allocate TCP/IP-related parameters to clients. DHCP defines multiple types of packets for this process. Which is the encapsulation mode for these packets in transport layer?

- A. TCP encapsulation
- B. IP encapsulation
- C. UDP encapsulation**
- D. PPP encapsulation

90. Which of the following statements is false about BGP/MPLS IP VPN route exchange?

A. PEs and CEs exchange IPv4 routes

B. An ingress PE converts the IPv4 routes received from a CE into VPNv4 routes and saves the routes by VPN instance

C. After an egress PE receives the VPNv4 routes advertised by an ingress PE, the egress PE filters the VPNv4 routes according to the RTs carried in the routes

D. An egress PE can only advertise IPv4 routes to remote CE through 8GR IGP, or static routes

91. OSPFv2 is an IGP running on IPv4 networks, whereas OSPFv3 is an IGP running on IPv6 networks. OSPFv3 and OSPFv2 use the same types of packets, including Hello, DD, LSR, LSU, and LSack packets. Which of the following statements is true about OSPFv3 packets?

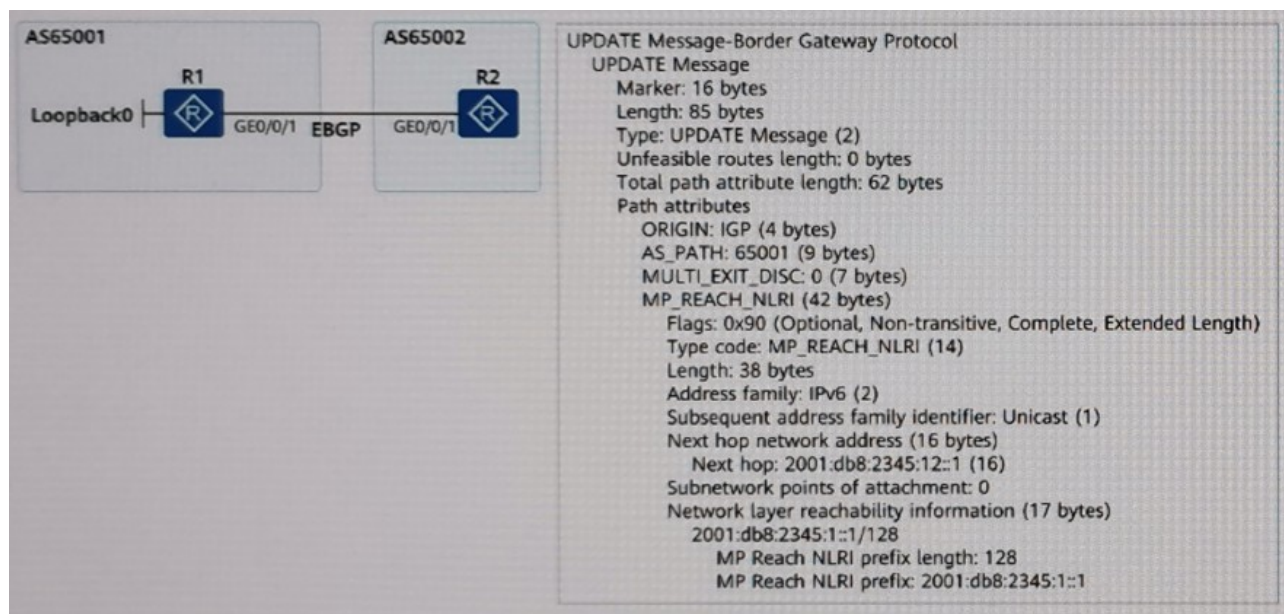
A. An OSPFv3 Hello packet carries the IPv6 address prefix of a router interface.

B. OSPFv3 uses the link-local address as the source address for sending packets. Packets can be forwarded beyond the originating link.

C. OSPFv3 uses the authentication field in the packet header for packet authentication.

D. OSPFv3 uses IPv6 multicast addresses FF02::5 and FF02::6 to send OSPFv3 packets.

92. On the network shown, an engineer uses two routers to test IPv6 services by running BGP4+ to simulate the communication between the enterprise headquarters and a branch. The engineer checks an Update message sent by R1. Which of the following statements about the message information is true?



A. The route described in the message may be imported using the "import" command.

B. The message describes a withdrawn IPv6 route.

C. The next-hop address of the route described in the message is 2001:db8:2345:1::1.

D. The route address prefix (including the prefix length) described in the message is 2001:db8:2345:1::1/128.

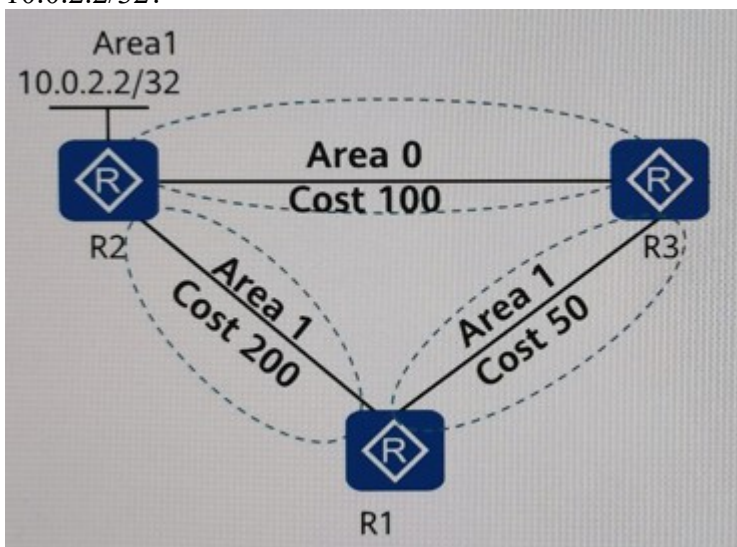
93. According to the display command output on the router running OSPF, which of the following statements is true?

```
<Huawei>display ospf lsdb summary
      OSPF Process 1 with Router ID 10.0.12.1
          Area: 0.0.0.0
      Link State Database

Type      : Sum-Net
Ls id     : 10.0.23.0
Adv rtr   : 10.0.12.2
Ls age    : 61
Len       : 28
Options   : E
seq#      : 80000001
chksum    : 0x3ae8
Net mask  : 255.255.255.0
Tos 0     : metric: 1
Priority   : Low
```

- A. The router is an ABR.
- B. The LSA in the figure is generated by the router.
- C. The destination network described by the LSA is 10.0.23.0/24.
- D. The LSA is an AS-external-LSA.

94. In the following figure, OSPF is enabled on all router interfaces, and link costs are marked. The Loopback0 address of R2 is advertised in area 1. Given this, what is the cost of the route from R1 to 10.0.2.2/32?



- A. 50
- B. 100
- C. 150
- D. 200

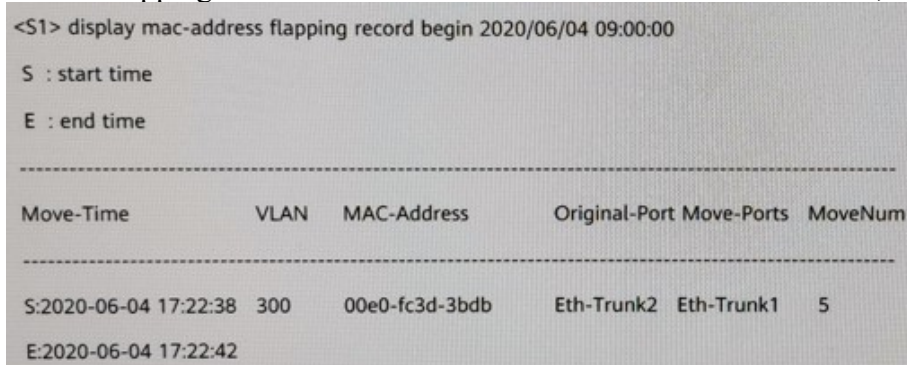
95. On a carrier's MPLS VPN network, PE1 and PE2 transmit data packets between VPNs. After PE1 receives VPN route 172.16.1.0/24 from a client, it converts the route into a VPNv4 route and distributes label 1027 to PE2. For the FEC of LSR-ID in PE1, the label value distributed by PE2 is 1025. When a client on PE2 accesses this route, what are the outer and inner labels in the packet transmitted out of PE2?

- A. Outer label: 1027; inner label: 1025
- B. Outer label: 1025; inner label: 1025
- C. Outer label: 1027; inner label: 1027
- D. Outer label: 1025; inner label: 1027

96. Which of the following fields is added to BGP4+ Update packets to advertise IPv6 routes?

- A. A new NLRI type: IPv6_NLRI, which carries the IPv6 NLRI prefix length and IPv6 NLRI prefix.
- B. A new path attribute: MP_REACH_NLRI
- C. A new path attribute: IPv6_REACH_NLRI
- D. A new path attribute: MP_UNREACH_NLRI

97. Based on the figure, how many times did MAC address 00e0-fc3d-3bdb encounter MAC address flapping in VLAN 300 from 17:22:38 to 17:22:42 on June 4, 2020?



```
<S1> display mac-address flapping record begin 2020/06/04 09:00:00
```

S : start time
E : end time

Move-Time	VLAN	MAC-Address	Original-Port	Move-Ports	MoveNum
S:2020-06-04 17:22:38	300	00e0-fc3d-3bdb	Eth-Trunk2	Eth-Trunk1	5
E:2020-06-04 17:22:42					

- A. 1
- B. 5
- C. 300
- D. 65535

98. If a fault occurs, classifying the fault can narrow down the fault scope. Which of the following is not an interface configuration fault?

- A. IP address conflict
- B. Inconsistent interface authentication modes on both ends of a link
- C. Inconsistent duplex modes of interfaces on both ends of a link
- D. Inconsistent input or output optical power on both ends of a link

99. Which of the following statements is false about MP-BGP?

- A. The packet types and VPNv4 route advertisement policies of MP-BGP are the same as those of BGP-4
- B. MP-BGP uses the MP_REACH_NLRI and MP_UNREACH_NLRI attributes to advertise VPNv4 routes
- C. When PEs and CEs exchange routes through BGP, you need to create BGP process for each VPN instance in CE
- D. MP-BGP needs to allocate private network labels for VPNv4 routes

100. Which of the following items is not involved when preparing for a migration?

- A. Live network overview
- B. Migration objective
- C. Risk assessment
- D. On-site monitoring

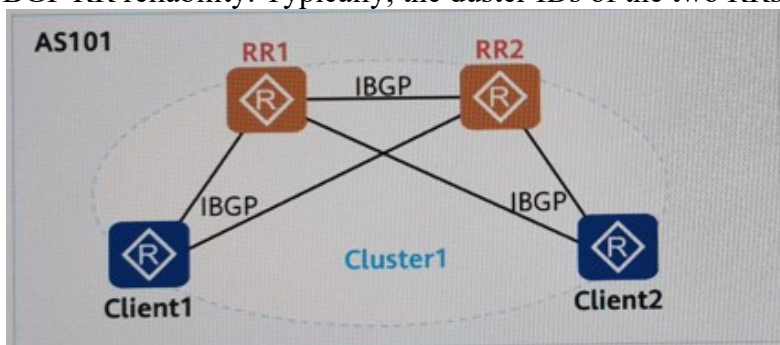
101. On a broadcast network, if the DR priorities of two interfaces connecting two routers are set to 0, in which of the following states will the OSPF neighbor relationship

- A. Down
- B. 2-way
- C. Exchange
- D. Full

102. 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 TTL field. Which statement regarding the TTL field is true?

- A. This field is used to prevent packet forwarding loops, similar to the TTL field in an IP header.
- B. This field is used for label management.
- C. This field used to control the upstream device in label distribution.
- D. This field limitation the LSR.

103. On a medium sized network configured with BGP, two RRs are typically deployed to improve BGP RR reliability. Typically, the duster IDs of the two RRs are set as the same. Why?



- A. To prevent loops.
- B. To prevent sub-optimal routes.
- C. To prevent memory insufficiency caused by receiving too many routes on RRs.
- D. To prevent memory insufficiency caused by receiving too many routes on clients.

MULTIPLE CHOISE

1. Which of the following methods can be used to view log information?

- A. There's no methods.
- B. Use an NMS.
- C. Log in to the device and run the display logbuffer command.
- D. Transfer the log files in flash:/logfile/ to a PC through FTP or TFTP.

2. Which of the following causes may result in an IS-IS neighbor relationship fault?

- A. The devices on two ends of a link have the same system ID.
- B. The devices on two ends of a link have inconsistent IS-IS levels.
- C. When an IS-IS Level-1 neighbor relationship is established, the devices on two ends of a link have inconsistent area addresses.
- D. The IP addresses of interfaces on two ends of a link are on different network segments.

3. Which of the following statements regarding the switch configuration are true?

```
[Huawei]dhcp enable
[Huawei]interface Vlanif 100
[Huawei-Vlanif100]dhcp select relay
[Huawei-Vlanif100]dhcp relay server-select dhcpgroup1
```

- A. DHCP enable command must be configured globally when you configure the DHCP server and DHCP relay agent
- B. VLANIF 100 receives DHCP packets and forwards the packets to the external DHCP server through a relay agent
- C. Specify VLANIF 100 to the DHCP server group dhcpgroup1
- D. Create a DHCP server group first and add a DHCP server to the group

4. Which of the following check items can be set for IPSG?

- A. MAC address
- B. VLAN ID
- C. IP address
- D. Outbound interface

5. Which of the following statements regarding MPLS label encapsulation format are true?

(Multiple Choice)

- A. The total length of one layer of MPLS label is 4 bytes (32 bits)
- B. The TTL field in an MPLS label has the similar meaning as that in an IP packet, and can prevent loops
- C. The S field in an MPLS label has 1 bit and is used to identify whether the label is the bottom-of-stack label. If the value is 1, the label is a penultimate-layer label
- D. For Ethernet and PPP packets, a label stack is located between the Layer 2 packet header and data. If a VLAN tag is available the label stack is placed between Ethernet header and the VLAN tag

6. LDP sessions are used to exchange messages between LSRs, such as label mapping and release messages. Which of the following statements regarding the LDP session establishment process are true? (Multiple Choice)

- A. Two LSRs send Hello messages to each other to trigger the establishment of a LDP session.
- B. Initialization messages are used to negotiate parameters for setting up an LDP session.
- C. Keepalive messages are used to monitor the TCP connection integrity of LDP sessions.
- D. When the ingress LSR receives a label mapping message, an LDP session is established.

7. In a MPLS VPN network, two-layer MPLS labels are added to data packets before they are transmitted over the public network. Which of the following statements regarding two-layer labels are false? (Multiple Choice)

- A. The outer label is the private network label and the inner label is the public network label.
- B. The MPLS VPN outer label is distributed manually by the LDP protocol the inner label, is distributed by the peer MP-BGP neighbor.
- C. By default, the outer label in data packets is popped out before being forwarded to the last hop.
- D. The outer label is used to instruct the PE to send data packets to the correct VPN.

8. In a MPLS VPN network, two layer MPLS labels are added into data packets before they are transmitted over the public network. Which of the following statements regarding data packet processing are true? (Multiple Choice)

- A. The penultimate hop removes the outer label before forwarding the data packet to a peer egress PE
- B. The IP data packet received from upstream LSR is without of labels
- C. The penultimate hop removes the outer label if the outer label in the data packet is explicit null label 3
- D. The egress PE sends the data packet to the correct VPN based on the inner label

9. LDP uses Discovery messages to discover neighbors. Which of the following statements regarding basic discovery mechanisms are true? (Multiple Choice)

- A. The destination IP address of the LDP Discovery message is the multicast IP address 224.0.0.2.
- B. The LDP Discovery message is sent to the specified LDP peer.
- C. The LSR does not send Hello messages any longer after TCP connections are established.
- D. The LDP Discovery message is encapsulated into a UDP packet and its destination port number is 646.

10. Network administrator A wants to use an IP prefix-list to match specific routes. Which of the following routes can be matched by the IP prefix list shown in this figure?

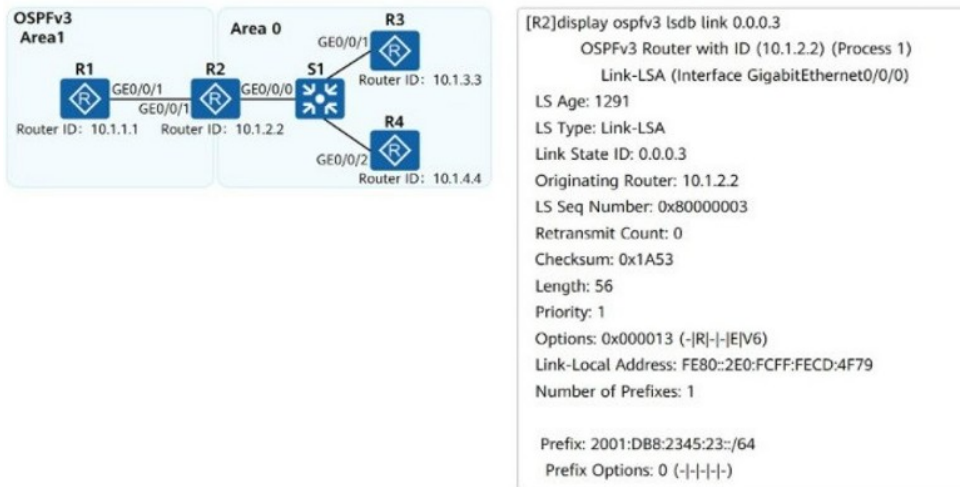
```
ip ip-prefix TEST permit 10.0.0.0 24 less-equal 30
```

- A. 10.0.0.0/24
- B. 10.0.0.1/30
- C. 10.0.1.0/24
- D. 10.0.2.0/24

11. Which of the following number sequences can be matched by the regular expression `[^100|200]$?`

- A. 100 200 300
- B. 300 200 100
- C. 200 100 300
- D. 100 300 200

12. On the campus network shown, IPv6 is deployed for service tests. Four routers are deployed on the network, and OSPFv3 is used for IPv6 network connectivity. An engineer checks the LSDB of R2 and obtains a Link-LSA. Which of the following statements about the LSA are true?



- A. This LSA is generated by R2.
- B. The IPv6 address prefix of R2's GE0/0/0 is 2001:DB8:2345:23::/64.
- C. This LSA indicates that R2 does not support external routes but can participate in IPv6 route calculation.
- D. The link-local address of R2's GE0/0/0 is FE80::2E0:FCFF:FECD:4F79.

13. Both IPv4 and IPv6 are deployed on a campus network for service tests. IS-IS is used for network connectivity. IS-IS has good scalability and is widely used on live networks. Which of the following statements about IS-IS scalability are true?

- A. The TLV structure used by IS-IS to construct packets makes IS-IS more flexible and scalable.
- B. Support for new features can be provided by adding only new IS-IS TLVs.
- C. To enable IS-IS to support IPv6, a new IS-IS TLV can be added to carry IPv6 address information.
- D. Network layer protocol identifier (NLPID) is a new type of TLV that IS-IS uses to support IPv6.

14. What can be determined from the following figure?

```
<R1>display ipv6 routing-table protocol isis
Public Routing Table : ISIS
Summary Count : 6
ISIS Routing Table's Status : < Active >
Summary Count : 6
... ..
Destination : 3000:FDEA::4          PrefixLength : 128
NextHop      : FE80::2E0:FCFF:FE98:2577  Preference   : 15
Cost         : 20                      Protocol     : ISIS-L2
Interface    : GigabitEthernet0/0/1      Flags        : D
```

- A. R1 has six IS-IS IPv6 routes.
- B. R1 does not have IS-IS IPv6 routes.
- C. R1 is not a Level-1 device.
- D. IS-IS IPv6 must have been enabled on GigabitEthernet0/0/1 of R1

15. What can be determined from the following figure?

<R1>display bgp ipv6 routing-table

Total Number of Routes: 2

```
*>i Network : 3002::3                                PrefixLen : 128
    NextHop   : 3000:FDEA::3                            LocPrf    : 100
    MED       : 0                                         PrefVal    : 0
    Path/Ogn  : i

*>i Network : 3002::4                                PrefixLen : 128
    NextHop   : 3000:FDEA::3                            LocPrf    : 100
    MED       : 0                                         PrefVal    : 0
    Path/Ogn  : 65001 i
```

A. R1 has routes 3002::3/128 and 3002::4/128.

B. If no routing policy is configured for the AS_Path attribute, 3002::4/128 originates from AS 65001.

C. R1 does not have routes 3002::3/128 and 3002::4/128.

D. If no routing policy is configured for the AS_Path attribute, 3002::4/128 does not originate from AS 65001.

16. What can be determined from the following figure?

<R1>display isis peer

Peer information for ISIS(1)

System Id	Interface	Circuit Id	State	HoldTime	Type	PRI
ee8c.a0c2.baf2	GE0/0/0	ee8c.a0c2.baf2.01	Up	7s	L2	64
ee8c.a0c2.baf3	GE0/0/1	ee8c.a0c2.baf3.02	Up	8s	L2	64

Total Peer(s): 2

A. R1 has two IS-IS neighbors.

B. There must be a Level-2 LSDB on R1.

C. R1's GE0/0/0 has Level-2 capabilities.

D. R1's GE0/0/1 has Level-2 capabilities.

17. According to the following information displayed on a router, which of the following are the causes of the failure in establishing an OSPF adjacency relationship?

```
<Huawei>display ospf error interface GigabitEthernet 0/0/0
```

```
OSPF Process 1 with Router ID 10.0.12.2
```

```
OSPF error statistics
```

```
Interface: GigabitEthernet0/0/0 (10.0.12.2)
```

```
General packet errors:
```

0	: Bad version	0	: Bad checksum
1	: Bad area id	0	: Bad authentication type
0	: Bad authentication key	0	: Unknown neighbor
0	: Bad net segment	0	: Extern option mismatch
0	: Router id confusion		

```
HELLO packet errors:
```

0	: Netmask mismatch	1	: Hello timer mismatch
0	: Dead timer mismatch	0	: Invalid Source Address

A. Hello packets are sent at different intervals.

B. The IP address masks of the interfaces are inconsistent.

C. The area types are inconsistent.

D. The area IDs are inconsistent.

18. The following figure shows some configurations on R1. Based on these configurations, which of the following statements about IS-IS on R1 are true?

```
isis 1
```

```
is-level level-2
```

```
cost-style wide
```

```
network-entity 49.0022.ee8c.a0c2.baf1.00
```

```
#
```

```
isis 2 vpn-instance tt
```

```
is-level level-2
```

```
cost-style wide
```

```
network-entity 47.00ce.390d.efdc.b3e1.00
```

```
#
```

```
isis 3 vpn-instance rr
```

```
is-level level-2
```

```
cost-style wide
```

```
network-entity 47.cc0a.3efb.bbdc.aae1.00
```

```
#
```

A. Process 1 contains the global routing information and routing information of VRFs tt and rr.

B. Process 1 contains only global routing information.

C. Routing information is shared between processes 2 and 3.

D. Routing information of process 2 is isolated from that of process 3.

19. The following figure shows the Network-LSA information on a router. Based on this information, which of the following statements are true about the router?

```
<Huawei>display ospf lsdb network self-originate
```

```
OSPF Process 1 with Router ID 10.0.12.2
```

```
Area: 0.0.0.0
```

```
Type      : Network
```

```
Ls id     : 10.0.12.2
```

```
Adv rtr   : 10.0.12.2
```

```
Ls age    : 824
```

```
Len       : 32
```

```
Options   : E
```

```
seq#      : 80000002
```

```
chksum    : 0x8970
```

```
Net mask  : 255.255.255.0
```

```
Priority   : Low
```

```
Attached Router 10.0.12.2
```

```
Attached Router 10.0.12.1
```

- A. The router ID is 10.0.12.2.
- B. The router is a DR.
- C. The router resides on network segment 10.0.12.0/24.
- D. This router do not supports the import of external routes.

20. Which of the following aspects should be considered for migration risk assessment? (Multiple Choice)

- A. Key risk positions
- B. Risk impact scope
- C. Risk impact time
- D. Loss caused by risks

21. Which of the following statements about a MUX VLAN are true?

- A. A principal VLAN can communicate with all VLANs in the MUX VLAN
- B. A separate VLAN can communicate with all VLANs in the MUX VLAN.
- C. Each separate VLAN must be bound to a principal VLAN.
- D. Each group VLAN must be bound to a principal VLAN.

22. DHCP snooping can prevent bogus DHCP server attacks. Which of the following are the required configuration steps? (Multiple Choice)

- A. Enable DHCP globally.
- B. Enable DAI Snooping globally.
- C. Enable DHCP snooping on an interface or VLAN.
- D. Configure an interface as a trusted or untrusted interface.

23. MPLS implements data forwarding based on two different planes. Which of the following statements regarding the forwarding mechanism are correct? (Multiple Choice)

- A. After an IP packet enters an MPLS domain, the MPLS device forward the packet based on FIB table queries
- B. The system automatically assigns an ID to the upper-layer application that uses a tunnel. This ID is also called the tunnel ID
- C. If the tunnel ID is 0x0, the MPLS forwarding process starts
- D. If the tunnel ID is not 0x0, the normal IP forwarding process starts

24. Which of the following statements regarding the ingress node in MPLS forwarding process are correct? (Multiple Choice)

- A. After receiving a data packet, the ingress node searches for tunnel ID in the ILM table first.
- B. The ingress node finds the NHLFE entry matching the tunnel ID in the ILM table to associate FIB and NHLFE entries.
- C. The ingress node checks the NHLFE entry to obtain the outbound interface, next hop, outgoing label, and label operation type. The label operation type is Push.
- D. The ingress node adds the obtained label to the IP packet, processes EXP by QoS policy, processes the TTL, and forwards the encapsulated MPLS packet to the next hop.

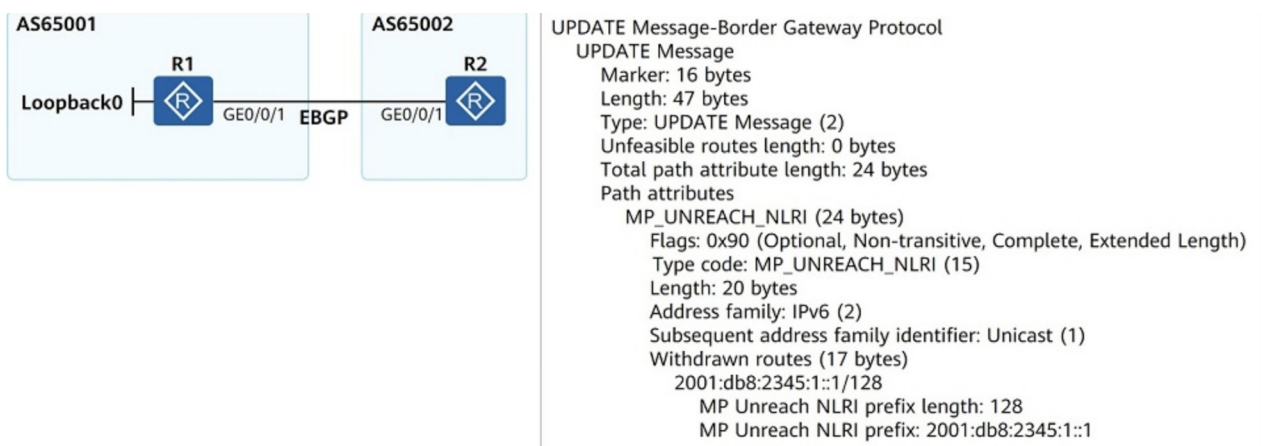
25. Which of the following functions affect the establishment of BGP peer relationships?

- A. BGP authentication
- B. BGP GSTM
- C. BGP route filtering
- D. EBGP max. hop

26. Which of the following statements are true about the MP_REACH_NLRI attribute of BGP4+?

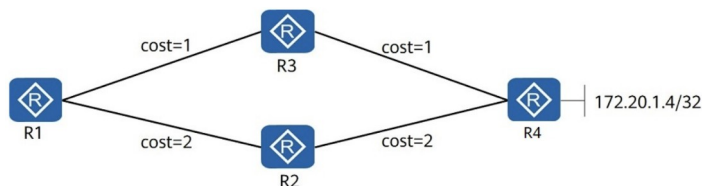
- A. The length of the next hop address can be 16 or 32.
- B. When the length of the next hop address is 16, the Network Address of Next Hop field carries the link-local address.
- C. The NLRI field carries the IPv6 route prefix and mask.
- D. The value of the address family identifier (AFI) is 2, indicating IPV6.

27. On the network shown, an engineer uses two routers to test IPv6 services by running BGP4+ to simulate the communication between the enterprise headquarters and a branch. The engineer checks an Update message sent by R1. Which of the following statements about the message information are true?



- A. The message describes a withdrawn IPv6 route.
- B. The message describes only one BGP attribute: MP_UNREACH_NLRI.
- C. The next-hop address of the route described in the message is 2001:db8:2345:1::1.
- D. The route address prefix (including the prefix length) described in the message is 2001:db8:2345:1::1/128

28. In the following figure, R1, R2, R3, and R4 all belong to OSPF area 0. The link costs are marked in the figure. The Loopback0 addresses of R1, R2, R3, and R4 are advertised to OSPF. R1, R2, and R3, which are R4 clients, use Loopback0 to establish an IBGP peer relationship with R4. The directly connected network segment 172.20.1.4/32 of R4 is advertised to BGP. Which of the following statements are true about the direction of traffic from R1 to 172.20.1.4/32?



- A. The preferred path is R1-R3-R4.
- B. The preferred path is R1-R2-R4.
- C. Packet loss occurs during both the power-off and startup processes of R3.
- D. If the stub router on-startup command is run on R3, packet loss occurs during the power-off process of R3 but no packet loss occurs during the startup process of R3

29. Which of the following items can be inferred from the figure?

```
<R1>display isis lsdb
```

Database information for ISIS(1)

Level-2 Link State Database

LSPID	Seq Num	Checksum	Holdtime	Length	ATT/P/OL
ee8c.a0c2.baf1.00-00*	0x00000007	0xbf09	710	103	0/0/0
ee8c.a0c2.baf2.00-00	0x00000005	0x3ae	646	103	0/0/0
ee8c.a0c2.baf2.01-00	0x00000001	0xe4f5	638	54	0/0/0
ee8c.a0c2.baf2.02-00	0x00000001	0x23b3	646	54	0/0/0
ee8c.a0c2.baf3.00-00	0x00000007	0x474d	653	103	0/0/0
ee8c.a0c2.baf3.01-00	0x00000001	0x2ea7	651	54	0/0/0
ee8c.a0c2.baf3.02-00	0x00000001	0xe1f5	652	54	0/0/0
ee8c.a0c2.baf4.00-00	0x00000005	0x8af2	666	103	0/0/0

Total LSP(s): 8

- A. The system ID of R1 is ee8c.a0c2.baf1.
- B. R1 has both Level-1 and Level-2 link state information.
- C. R1 has only Level-2 link state information.
- D. There are 8 routers on the Level-2 network.

30. Which of the following operations may adversely affect the performance of a customer network?

- A. Hardware capacity expansion
- B. Software upgrade
- C. Device naming
- D. Modifying routing protocol configurations

31. Based on the figure, which of the following statements are true?

```
[R1]tracert -a 172.16.1.1 -q 10 172.16.1.4
tracert to 172.16.1.4(172.16.1.4), max hops: 30 ,packet length: 40,press CTRL_C to break
 1      10.1.13.2 40 ms 10 ms 10 ms 10 ms 10 ms 10.1.12.2 30 ms 20 ms 20 ms 20 ms 20 ms 30 ms 10.1.13.2 10 ms 10 ms
      20 ms 20 ms 20 ms 10.1.12.2 20 ms 20 ms 20 ms 20 ms
 2      10.1.24.2 40 ms 10.1.34.2 30 ms 20 ms 20 ms 20 ms 30 ms 30 ms 10.1.24.2 20 ms 20 ms 30 ms 20 ms 20 ms
      10.1.34.2 30 ms 20 ms 20 ms 40 ms 30 ms 10.1.24.2 20 ms 20 ms 20 ms
```

[R1]

- A. The route from R1 to 172.16.1.4 passes through two hops.
- B. Two equal-cost paths are available for R1 to access 172.16.1.4.
- C. The route from R1 to 172.16.1.4 passes through four hops.
- D. Four equal-cost paths are available for R1 to access 172.16.1.4.

32. OSPF is a mature protocol and is unlikely to have route computation errors in a regular networking environment under correct configurations. Which of the following statements are true about the possible causes preventing an SPF neighbor relationship from entering Full state?

- A. A link works abnormally.
- B. The OSPF network types on both ends of the link are inconsistent.
- C. The OSPF MTU values of interfaces on both ends of the link are different.
- D. The router IDs of neighbors are the same.

33. DHCP snooping is a security feature that can be used to defend against various attacks, including: (Multiple Choice)

- A. Starvation attacks by changing the CHADDR field value
- B. Bogus DHCP server attacks
- C. TCP flag attacks
- D. Man-in-the-middle attacks and IP/MAC spoofing attacks

34. In the MPLS VPN, RD values are added to IPv4 addresses to distinguish IPv4 prefixes with the same address space. Which of the following statements are true? (Multiple Choice)

- A. The RD is encapsulated into the Update packet as the BGP extended attribute.
- B. After receiving IPv4 routes from a CE, a PE adds RDs to them to convert them to globally unique VPN-IPv4 routes and advertises the routes on the public network.
- C. Each VPN instance on a PE corresponds to a RD value. The RD on the same PE must be globally unique.
- D. The RD can be used to control advertisement of VPN routing information.

35. Which of the following statements regarding RT are true? (Multiple Choice)

- A. Each VPN instance is associated with one or more pairs of VPN Target attribute, used to control VPN routing information advertisement and reception between sites.
- B. RTs are classified into two types: Export Target and Import Target.
- C. Export Target and Import Target are independent from each other and support multiple values to implement flexible VPN routing information advertisement and reception control
- D. The RT value is advertised to neighbors through the BGP extended community attribute in Update messages

36. Network administrator A wants to use the AS Path filter to match routes with the BGP route attribute AS Path (100 200 300]. Network administrator A sorts the four configurations shown in the figure. Which of the following configurations meet the requirements of network administrator A?

Method	Config
A	ip as-path-filter TEST permit 100 200 300
B	ip as-path-filter TEST permit _300\$
C	ip as-path-filter TEST permit ^(^100]
D	ip as-path-filter TEST permit *.

- A. Method A
- B. Method B
- C. Method C
- D. Method D

37. Network administrator A wants to use an ACL to match specific routes. Which of the following routes will be matched by the ACL rule shown in this figure?

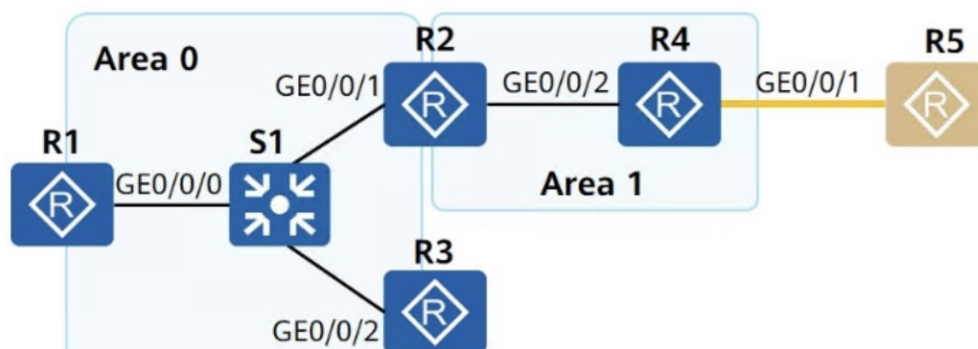
```
acl number 2000
rule 10 permit source 10.0.0.0 0.0.6.0
```

- A. 10.0.0.0/24
- B. 10.0.0.1/32
- C 10.0.1.0/24
- D 10.0.2.0/24

38. Which of the following statements about the multicast address used by OSPFv3 are true?

- A. All OSPF routers use FF02::5.
- B. The DR uses FF02::6.
- C. All OSPF routers use FF08:5.
- D. The DR uses FF08::6.

39. IPv6 is deployed on a campus network for service tests. Four routers (R1, R2, R3, and R4) are deployed on the network, and OSPFv3 is used for IPv6 network connectivity. A new router R5 needs to be added to the network for testing. An engineer imports direct routes to the OSPFv3 process of R4, so that devices on the campus network can access the IP address of GE0/0/1 on R5. Which of the following statements about this scenario are true?



- A. R4 generates a Type 5 LSA, which is flooded only in area 1.
- B. R4 generates a Type 5 LSA to describe the imported IPv6 route prefixes.
- C. R2 generates a Type 4 LSA and floods it only in area 0.
- D. R2 generates a Type 4 LSA that describes the router ID of R4.

40. Which of the following statements are true about the differences between OSPFv2 and OSPFv3?

- A. OSPFv2 and OSPFv3 involve the same types of packets: Hello, DD, LSR, LSU, and LSAack. The format of the header in these packets is the same in OSPFv2 and OSPFv3.
- B. The protocol number of OSPFv2 in the IPV4 packet header is 89, and the next header field value of OSPFv3 in the IPv6 packet header is 89.
- C. OSPFv2 and OSPFv3 support interface authentication, and OSPFv3 authentication is implemented based on fields in OSPF packet headers.
- D. Similar to OSPFv2, OSPFv3 uses a multicast address as the destination address of OSPF packets.

41. IS-IS supports multi-instance and multi-process. Which of the following statements are true about IS-IS multi-instance and multi-process?

- A. One IS-IS process can be associated with only one VPN instance.
- B. One IS-IS process can be associated with multiple different VPN instances.
- C. One VPN instance can be associated with multiple different IS-IS processes.
- D. If multiple IS-IS processes are created on an IS-IS router, these processes are independent of each other.

42. What can be determined from the following figure?

```
<R1>display ip routing-table protocol isis
```

Public routing table : ISIS

Destinations : 5 Routes : 6

Destination/Mask	Proto	Pre	Cost	Flags	NextHop	Interface
10.1.24.0/30	ISIS-L2	15	20	D	10.1.12.2	GigabitEthernet0/0/0
10.1.34.0/30	ISIS-L2	15	20	D	10.1.13.2	GigabitEthernet0/0/1
172.16.1.2/32	ISIS-L2	15	10	D	10.1.12.2	GigabitEthernet0/0/0
172.16.1.3/32	ISIS-L2	15	10	D	10.1.13.2	GigabitEthernet0/0/1
172.16.1.4/32	ISIS-L2	15	20	D	10.1.12.2	GigabitEthernet0/0/0
	ISIS-L2	15	20	D	10.1.13.2	GigabitEthernet0/0/1

- A. No IS-IS routes exist in R1's IP routing table.
- B. Six IS-IS routes exist in R1's IP routing table.
- C. The route whose destination is 172.16.1.4/32 does not exist on R1.
- D. The route whose destination is 172.16.1.4/32 exists on R1.

43. Which of the following items can be inferred from the figure?

```
<R1>display ospf lsdb
```

OSPF Process 1 with Router ID 172.16.1.1

Link State Database

Area: 0.0.0.0

Type	LinkState ID	AdvRouter	Age	Len	Sequence	Metric
Router	172.16.1.3	172.16.1.3	216	60	80000009	1
Router	172.16.1.2	172.16.1.2	214	60	80000008	2
Router	172.16.1.1	172.16.1.1	217	60	80000007	2
Router	172.16.1.4	172.16.1.4	209	60	80000009	1
Network	10.1.24.2	172.16.1.4	209	32	80000002	0
Network	10.1.13.2	172.16.1.3	218	32	80000001	0
Network	10.1.12.2	172.16.1.2	218	32	80000001	0
Network	10.1.34.2	172.16.1.4	209	32	80000002	0

- A. Area 0 has 4 routers.
- B. Area 0 has 8 routers.
- C. Area 0 has 4 MA networks.
- D. Area 0 has 8 MA networks.

44. After completing a project survey, which of the following customer network requirements do you need to obtain to determine a migration solution?

- A. Bandwidth usage
- B. QOS
- C. Transport capability of new services
- D. Packet loss rate

45. Based on the figure, which of the following statements are true?

<R1>tracert 172.17.1.5

1 10.1.12.2 40 ms 10 ms 10 ms

2 10.1.24.2 30 ms 20 ms 20 ms

3 10.1.34.1 20 ms 20 ms 20 ms

4 10.1.13.1 20 ms 20 ms 10 ms

5 10.1.12.2 20 ms 30 ms 20 ms

6 10.1.24.2 30 ms 30 ms 30 ms

7 10.1.34.1 50 ms 40 ms 40 ms

8 10.1.13.1 20 ms 30 ms 30 ms

9 10.1.12.2 50 ms 40 ms 40 ms

... ..

A. A loop occurs when R1 accesses 172.17.1.5.

B. The path for R1 to access 172.17.1.5 is normal.

C. R1 does not have a route to 172.17.1.5.

D. R1 has a route to 172.17.1.5.

46. Ethernet supports broadcast. Once a network loop occurs, this simple broadcast mechanism will cause catastrophic consequences. Which of the following symptoms may be caused by a loop? (Multiple Choice)

A. Users cannot log in to the device remotely.

B. The display interface command output shows a large number of broadcast packets received on an interface

C. The CPU usage exceeds 70%

D. A lot of ICMP packets are lost in ping tests

47. Which of the following statements about VLAN aggregation are true?

A. A sub-VLAN contains physical ports and can be used to create Layer 3 VLANIF interfaces

B. A super VLAN contains only physical ports and cannot be used to create Layer 3 VLANIF interfaces

C. Sub-VLANs are used to isolate broadcast domains

D. A super VLAN can contain one or more sub-VLANs

48. Which route attributes are used by RRs to prevent routing loops in an AS?

A. Cluster list

B. Originator ID

C. AS-PATH

D. Next hop

49. What can be determined from the following figure?

```
<R1>display ipv6 routing-table protocol bgp

Public Routing Table : BGP

Summary Count : 1

BGP Routing Table's Status : < Active >

Summary Count : 1

Destination : 3002::3          PrefixLength : 128
NextHop      : 3000:FDEA::3     Preference   : 255
Cost         : 0                Protocol      : IBGP
RelayNextHop : FE80::2E0:FCFF:FE98:2577 TunnelID     : 0x0
Interface    : GigabitEthernet0/0/1  Flags        : RD

<R1>
```

- A. R1 and 3000:FDEA::3 are IBGP peers
- B. The optimal outbound interface for R1 to access 3000:FDEA::3 is GigabitEthernet0/0/1
- C. R1 learns the route 3002::3/128 through IBGP.
- D. There is a TCP connection between R1 and 3000:FDEA::3

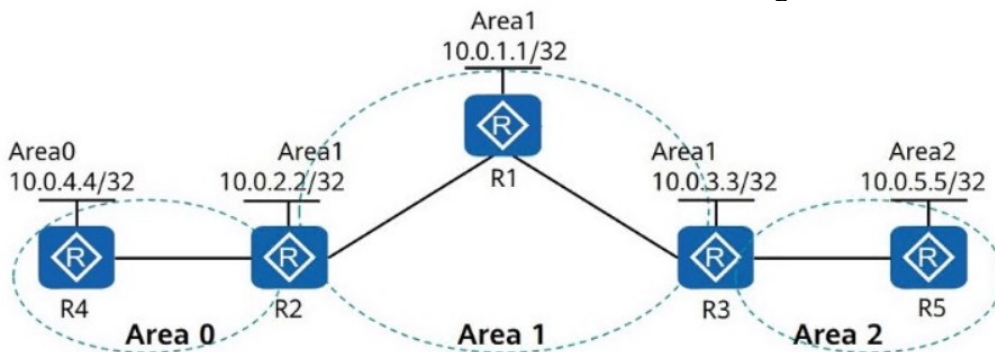
50. Which of the following statements are true about IS-IS (IPv6)?

- A. IS-IS works at the data link layer and can support IPv6 through TLV addition
- B. To support the processing and calculation of IPv6 routes, TLV (type 232) and TLV (type 236) are added for IS-IS
- C. To support the processing and calculation of IPv6 routes, a new NLPID is added for IS-IS TLV (type 129)
- D. By default, IS-IS multi-topology is enabled

51. In OSPFv3, which of the following LSAs can be flooded within an area?

- A. Inter-Area-Prefix-LSA
- B. Inter-Area-Router-LSA
- C. Intra-Area-Prefix-LSA
- D. Link-LSA

52. In the following figure, OSPF is enabled on all router interfaces. The IP addresses marked in the figure belong to Loopback0 of the routers. The Loopback0 addresses of R1 and R2 are advertised in area 1, the Loopback0 address of R4 is advertised in area 0, and the Loopback0 addresses of R3 and R5 are advertised in area 2. Given this, which of the following IP addresses can ping each other?



- A. 10.0.4.4 and 10.0.2.2
- B. 10.0.2.2 and 10.0.3.3
- C. 10.0.2.2 and 10.0.5.5
- D. 10.0.3.3 and 10.0.5.5

53. What can be determined from the following figure?

```
<R4>display isis lsdb
```

Database information for ISIS(1)					
Level-1 Link State Database					
LSPID	Seq Num	Checksum	Holdtime	Length	ATT/P/OL
ee8c.a0c2.baf2.00-00	0x00000009	0x4c44	1159	83	1/0/0
ee8c.a0c2.baf2.02-00	0x00000001	0x23b3	815	54	0/0/0
ee8c.a0c2.baf3.00-00	0x0000000c	0x462f	1187	83	1/0/0
ee8c.a0c2.baf3.01-00	0x00000001	0x2ea7	1082	54	0/0/0
ee8c.a0c2.baf4.00-00*	0x00000004	0x8af5	1083	103	0/0/0

```
<R4>
```

<R4>display isis lsdb

Database information for ISIS(1)					
Level-1 Link State Database					
LSPID	Seq Num	Checksum	Holdtime	Length	ATT/P/OL
ee8c.a0c2.baf2.00-00	0x00000009	0x4c44	1159	83	1/0/0
ee8c.a0c2.baf2.02-00	0x00000001	0x23b3	815	54	0/0/0
ee8c.a0c2.baf3.00-00	0x0000000c	0x462f	1187	83	1/0/0
ee8c.a0c2.baf3.01-00	0x00000001	0x2ea7	1082	54	0/0/0
ee8c.a0c2.baf4.00-00*	0x00000004	0x8af5	1083	103	0/0/0

<R4>

- A. R4 is only a Level-1 device.
- B. R4 is only a Level-2 device.
- C. The device whose system ID is ee8c.a0c2.baf2 is a Level-1-2 device.
- D. The device whose system ID is ee8c.a0c2.baf2 is a Level-1 device.

54. After cutover acceptance is complete, which of the following operations need to be performed in the closure phase?

- A. Transfer-to-maintenance training
- B. On-site monitoring
- C. Handing over documents
- D. Acceptance summary

55. Which of the following statement about OSPF Router-LSAs Network-LSAs are false?

- A. A Router that runs OSPF will generate Network-LSAs
- B. Network-LSAs carry both topology and routing information
- C. Both Router-LSAs and Network-LSAs exit on an OSPF network
- D. A router that runs OSPF will generate Router-LSAs

56. MPLS is short for multiprotocol label switching. Which of the following statements regarding MPLS labels are true? (Multiple Choice)

- A. An MPLS Label is a short fixed-length identifier with only local significance, and is used to uniquely indicate the FEC to which a packet belongs.
- B. Similar to VPI/VCI in ATM packets and DLCI in Frame Relay packets, an MPLS label is a connection identifier.
- C. An MPLS Label, carried in a packet header, does not contain topology information and is globally significance.
- D. MPLS supports single-layer labels and multi-layer label.

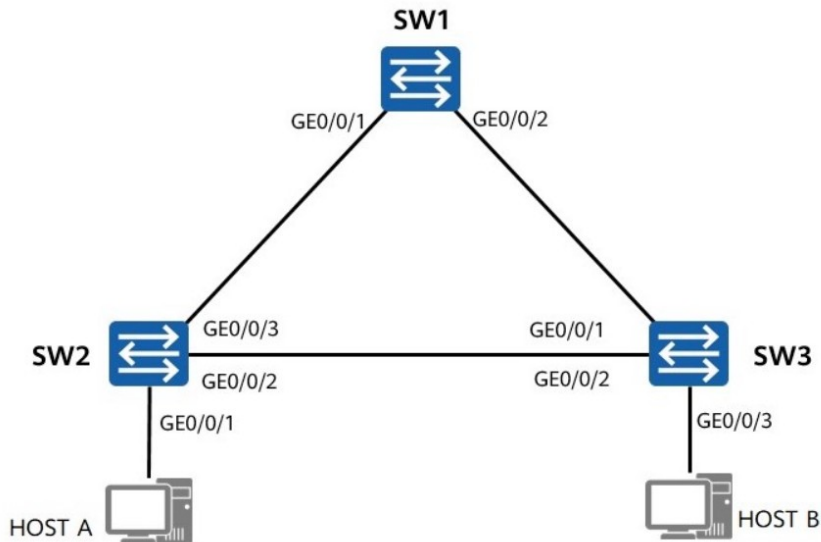
57. An LSR supports various label retention modes. Which of the following statements regarding the liberal mode are true? (Multiple Choice)

- A. An LSR reserves all labels distributed by its neighbor
- B. The liberal mode requires more memory and label space
- C. An LSR retains labels from a neighboring LSR only when the neighbor is its next hop
- D. This label retention mode saves the memory and label space

58. The TTL field encapsulated to the MPLS label header can prevent infinite loop of MPLS packets. Which of the following statements regarding the TTL field are true?

- A. MPLS encapsulation in frame mode supports the TTL field. MPLS encapsulation in cell mode does not support the TTL field.
- B. MPLS provides two processing modes on the TTL field: 1. TTL in the MPLS header copies the IP TTL value when an IP packet enters the MPLS network 2. The ingress LER sets the TTL value in the MPLS header to 255
- C. The process of IP TTL copy hides the LSR in a MPLS domain, improving the network security
- D. If TTL copy is disabled, users can use the tracert function to view the LSR of the MPLS domain

59. A loop occurs because STP is not enabled on the network. Which of the following symptoms may occur



- A. CPU usage is too high
- B. MAC entries flap
- C. Host receives a large number of broadcast packets
- D. A loop alarm is generated on the LAN Switch

60. As shown in the following figure, what is known about the default routes on R4?

<R4>display ip routing-table protocol isis

Destination/Mask	Proto	Pre	Cost	Flags	NextHop	Interface
0.0.0.0/0	ISIS-L1	15	10	D	10.1.24.1	GigabitEthernet0/0/1
	ISIS-L1	15	10	D	10.1.34.1	GigabitEthernet0/0/0
172.16.1.2/32	ISIS-L1	15	10	D	10.1.24.1	GigabitEthernet0/0/1
172.16.1.3/32	ISIS-L1	15	10	D	10.1.34.1	GigabitEthernet0/0/0

<R4>

- A. One default route
- B. Two equal-cost default routes
- C. Two default routes with different costs
- D. Four equal-cost default routes

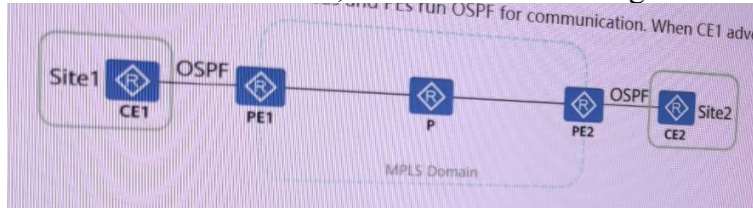
61. What the purpose for configuring BFD for OSPF?

- A. Associating BFD is capable of millisecond-level detection with OSPF can quickly detect link status
- B. OSPF Hello packets are sent at an interval of seconds, which is faster than BFD in detecting link status
- C. BFD packets can be sent at an interval of millisecond, which is slower than OSPF in detecting link status
- D. Any change in the BFD status does not affect the OSPF adjacency status.

62. During the migration test, which of the following indicates that the test is completed?

- A. The network is running properly
- B. Tested network services are running properly.
- C. Tested upper-layer application services are running properly on the network
- D. Command outputs are correct.

63. As shown in the figure, the CEs and PEs run OSPF for communication. When CE1 advertises the routes of its site to CE2, which of the following statements is false?



- A. The domain ID configured on PE1 can be carried as a BGP extended community attribute of a route, and sent to PE2 along the route.
- B. If PE2 receives a BGP route from PE1 that carries a domain ID identical to the local domain ID and is calculated based on a Type 3 LSA, PE2 generates a Type 5 LSA.
- C. If PE2 receives a BGP route from PE1 that carries a domain ID same as the local domain ID and is calculated based on a Type 1 or Type 2 LSA, PE2 generates a Type 3 LSA.
- D. If PE2 receives a BGP route from PE1 that carries a domain ID different from the local domain ID, PE2 generates a Type 5 LSA or Type 7 LSA, regardless of the LSA type based on which the route is calculated.

64. The structured network troubleshooting process is triggered by a fault report. The basic principle is to simplify troubleshooting by narrowing down or isolating all possible causes of a fault into several small subsets. In what sequence are structured network troubleshooting steps carried out? 1. Information collection 2. Fault identification 3. Cause list 4. Troubleshooting assessment 5. Fault analysis 6. One-by-one-check 7. Fault rectification

- A. 1->2->3->6->4->5->7
- B. 1->2->3->6->5->4->7
- C. 2->1->3->5->6->4->7
- D. 2->1->5->3->4->6->7

65. Which description is correct about the MPLS forwarding mechanism? (Multiple choice)

- A. The system automatically assigns an ID to the upper-layer application that uses the tunnel, also known as Tunnel ID
- B. When an IP packet enters the MPLS domain, the FIB table is the first to be checked
- C. If the Tunnel ID value is not 0x0, enter the normal IP forwarding process
- D. If the Tunnel ID value is 0x0, enter the MPLS forwarding process

66. The Discovery message of LDP is used for neighbor discovery, and LDP has different discovery mechanisms when discovering neighbors. Then, which of the following statements about Discovery message in the basic discovery mechanism is correct? (Multiple choice)

- A. After the TCP connection is established, the LSR does not continue to send Hello Message
- B. The destination IP address of the message is the multicast IP address 224.0.0.2
- C. This message is encapsulated in a UDP message, and the destination port number is 646
- D. The message is sent to the designated LDP Peer

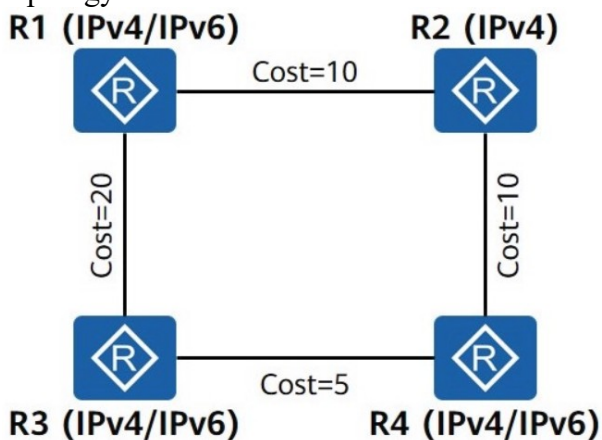
67. The OSPF protocol runs between CE and PE, when CE1 advertises the route of the site to CE2. Which of the following description is wrong?

- A. When PE2 receives a BGP route from PE1 that carries a different Domain ID from the local one, it is correct for all LSAs, and PE2 will generate Type5 LSA or Type7 LSA
- B. When PE2 receives the same Domain ID as the local BGP route sent by PE1, PE2 will generate Type3 LSA for Type1 LSA and Type2 LSA wrong
- C. When PE2 receives the same Domain ID as the local BGP route sent by PE1, for Type3 LSA, PE2 will generate Type5 LSA
- D. The Domain ID configured by PE1 can be used as an extended community attribute of BGP and sent along with the route to PE2.

68. Which of the following statements is false about a sham link?

- A. To ensure that VPN traffic is forwarded through an MPLS backbone network, the route cost of a sham link must be smaller than the OSPF route cost of a backdoor link.
- B. A sham link is considered a link between two VPN instances. Each VPN instance must have an endpoint address of a sham link, which must be a loopback interface address with a 32-bit mask in the VPN address space on a PE.
- C. The endpoint address of a sham link is advertised by BGP as a VPNv4 address. Routes that pass through a sham link can also be imported to BGP as VPNv4 routes.
- D. A sham link can be configured in any area and needs to be manually configured. In addition, a local VPN instance must have a route to the destination address of the sham link (the endpoint address of the sham link on the remote PE).

69. IS-IS is a link-state routing protocol that uses the shortest path first (SPF) algorithm to calculate routes. On the campus network shown, both IPv4 and IPv6 are deployed, and IS-IS is used for network connectivity. R2 supports only IPv4. Which of the following statements about network topology calculation is true?

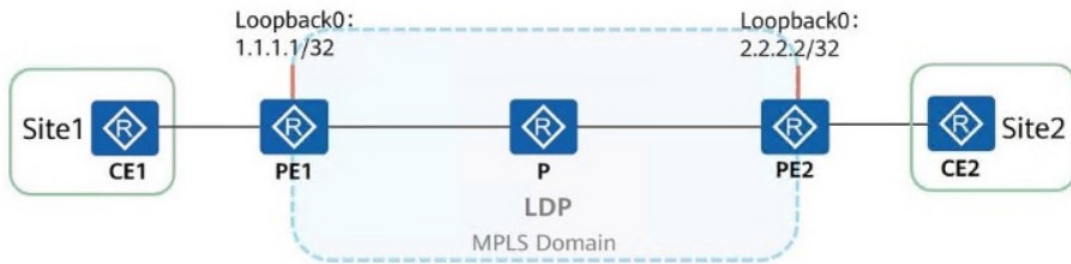


- A. By default, IPv4 and IPv6 networks calculate their respective shortest path trees (SPTs).
- B. To enable IPv4 and IPv6 networks to calculate the same SPT, run the "ipv6 enable topology ipv6" command to enable IPv6 in the IS-IS process.
- C. By default, in the SPT for the IPv6 network, the path from R1 to R4 is R1 -> R2 -> R4. Because R2 does not support IPv6, R2 directly discards received IPv6 packets, causing traffic loss.
- D. R2 does not support IPv6. By default, the path from R1 to R4 is R1 -> R3 -> R4 on the IPv6 network.

70. In scenarios other than virtual links, which type of IPv6 address is the source IPv6 address of OSPFv3 Hello packets?

- A. Global unicast address
- B. Unique local address (ULA)
- C. Link-local address
- D. IPv6 anycast address

71. As shown in the figure, PE1 and PE2 establish an MP-BGP peer relationship through the loopback0 interfaces. After the configuration is complete, CE1 and CE2 can no longer learn routes from each other. What are the possible causes of the problem?



- A. No LSP is established between PE1 and PE2.
- B. PE1 or PE2 is not configured as a BGP peer in the BGP-VPNv4 unicast address family view.
- C. VPN instance parameters are incorrectly configured on PE1 or PE2.
- D. The routing protocol for communication between a CE and PE1 or PE2 is incorrectly configured.

72. A company has a headquarters and two branches. MPLS VPN is used to transmit VPN routes in the company. In Hub-Spoke networking mode, branches can only exchanging routing information with the headquarters, but branches cannot exchanging routing information with each other directly. Which of the following RT settings are true to achieve the preceding requirements? (Multiple Choice)

- A. Headquarters: Import Target: 1:1, 2:2; Export Target: 3:3
Branch 1: Import Target: 3:3; Export Target: 1:1
Branch 2: Import Target: 3:3; Export Target: 2:2
- B. Headquarters: Import Target: 12:3; Export Target: 3:12
Branch 1: Import Target: 3:12; Export Target: 12:3
Branch 2: Import Target: 3:12; Export Target: 12:3
- C. Headquarters: Import Target: 1:1; Export Target: 3:3
Branch 1: Import Target: 3:3; Export Target: 1:1
Branch 2: Import Target: 3:3; Export Target: 2:2
- D. Headquarters: Import Target: 2:2; Export Target: 3:3
Branch 1: Import Target: 3:3; Export Target: 1:1
Branch 2: Import Target: 3:3; Export Target: 2:2

73. Which of the following statements regarding forwarding equivalence class (FEC) in MPLS are false? (Multiple Choice)

- A. Packets with the same FEC are processed differently on a MPLS network.
- B. FECs can be divided flexibly by source IP address, destination IP address, source port, destination port, protocol type, VPN, or any combinations of them.
- C. MPLS classifies packets with the same forwarding processing mode into one FEC.
- D. One FEC has only one unique label marker.

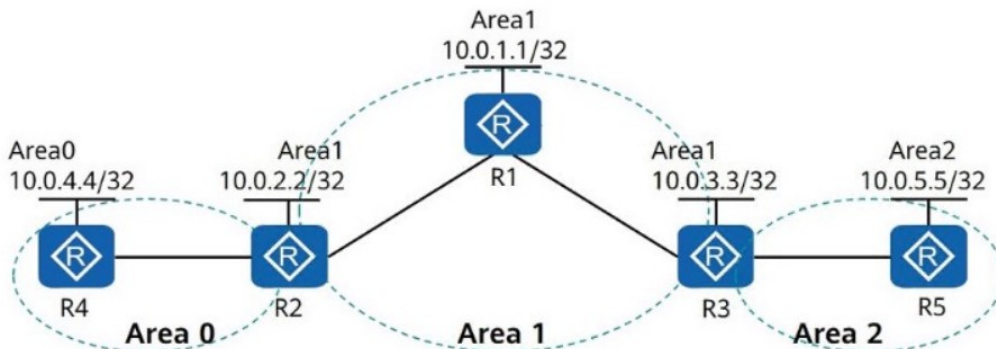
74. BGP authentication can prevent unauthorized routers from establishing BGP peer relationships with routers. BGP authentication can be classified into MD5 authentication and keychain authentication. Which of the following BGP messages carry BGP keychain authentication information?

- A. Open
- B. Update
- C. Keepalive
- D. Notification

75. Which of the following statements about OSPF Router-LSAs and Network-LSAs are false?

- A. A router that runs OSPF will generate Network-LSAs.
- B. Network-LSAs carry both topology and routing information.
- C. Both Router-LSAs and Network-LSAs exist on an OSPF network.
- D. A router that runs OSPF will generate Router-LSAs.

76. In the following figure, OSPF is enabled on all router interfaces. The IP addresses marked in the figure belong to Loopback0 of the routers. The Loopback0 addresses of R1, R2, and R3 are advertised in area 1, the Loopback0 address of R4 is advertised in area 0, and the Loopback0 address of R5 is advertised in area 2. Give this, which of the following IP addresses can ping each other?



- A. 10.0.4.4 and 10.0.2.2
- B. 10.0.2.2 and 10.0.3.3
- C. 10.0.2.2 and 10.0.5.5
- D. 10.0.3.3 and 10.0.5.5

77. Which of the following are migration difficulties? (Multiple Choice)

- A. Minimizing on services
- B. Achieving optimal risk prevention
- C. Formulating a complete migration solution
- D. Carrying out the migration smoothly

78. During the structured network troubleshooting process, which of the following items require attention in the information collection phase? (Multiple Choice)

- A. What information to collect
- B. How to collect information
- C. Whether authorization is required
- D. Risks in the information collection phase

79. Which of the following statements are true about the OSPFV3 packet format?

- A. The OSPF version number is changed from 2 to 3.
- B. The Authentication and Auth Type fields are removed.
- C. Hello packets do not contain address information but carry interface IDs.
- D. The Options field in the Hello packet does not change.

80. Which of the following items are included in static information collection and analysis?

- A. Device types
- B. Interface types
- C. License
- D. Packet loss rate

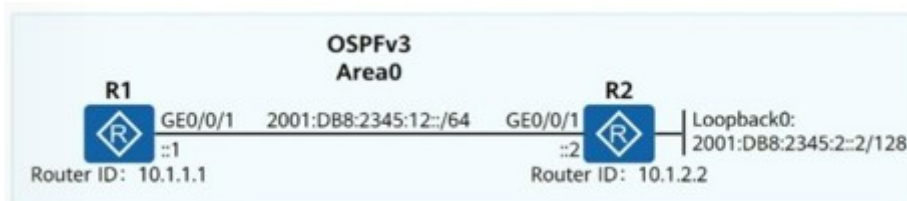
81. Which of the following causes may lead to a failure for hosts in the same VLAN to communicate with each other? (Multiple Choice)

- A. The interfaces connected to the users are shut down manually or the physical interfaces are damaged.
- B. The switch learns incorrect MAC addresses.
- C. Port isolation is configured on the switch.
- D. Incorrect mappings between interfaces and MAC addresses are configured on the switch.

82. Which of the following number sequences can be matched by the regular expression 100.\$?

- A. 100
- B. 1000
- C. 1001
- D. 10000

83. An engineer uses two routers to perform IPv6 tests and wants to use OSPFv3 for IPv6 network connectivity. Which of the following OSPFv3 configurations for R1 are true?



- A. [R1] router id 10.1.1.1
- B. [R1-ospfv3-1] router-id 10.1.1.1
- C. [R1 -ospfv3-1-area-0.0.0.0] network 2001:DB8:2345:12::1 ::
- D. [R1-GigabitEthernet0/0/1] ospfv3 1 area 0

84. Which of the following contents are included in a migration project solution? (Multiple Choice)

- A. Migration preparation
- B. Migration implementation
- C. Rollback solution
- D. Contingency plan

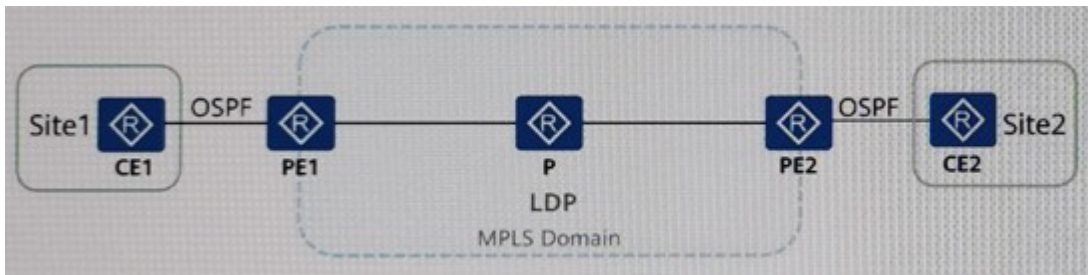
85. During follow-up operations of the structured network troubleshooting process, which of the following documents need to be transferred? (Multiple Choice)

- A. Troubleshooting intermediate documents
- B. Troubleshooting summary report
- C. Change backup and maintenance suggestions
- D. User communication plan

86. Which of the following are the advantages of VLAN aggregation?

- A. The number of available VLANs is increased.
- B. Addressing flexibility is improved.
- C. Broadcast domains are isolated between sub-VLANs.
- D. IP address waste is reduced.

87. As shown in the figure, PE1 and PE2 exchange private network route information with their respective CEs through OSPF, and the same domain ID is configured on PE1 and PE2. Which of the following LSA types may be transmitted to CE2 when PE2 imports BGP routes to the OSPF process?

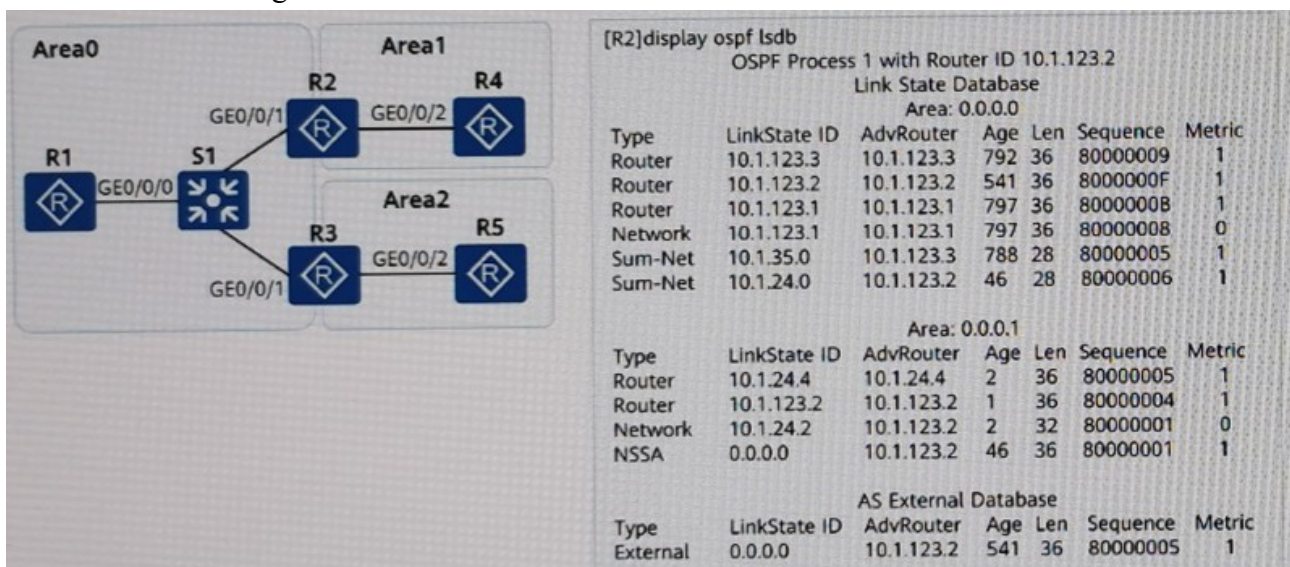


- A. Type 1 LSA
- B. Type 3 LSA
- C. Type 5 LSA
- D. Type 7 LSA

88. Which of the following community attributes ensure that BGP routes are transmitted only within an AS?

- A. Internet
- B. No Export
- C. No Advertise
- D. No Export Subconfed

89. OSPF is deployed on a campus network to implement network interconnection. The LSDB of R2 is shown in the figure. What can be determined from the LSDB.



- A. Area 1 is an NSSA.
- B. Area 1 does not have Type 3 LSAs. The possible cause is that R2 filters Type 3 LSAs in the outbound direction of area 1.
- C. R2 advertises the default route in the OSPF process.
- D. R2 translates Type 7 default route into Type 5 default route.

90. Which of the following statements are true about the "ping -a X -c Y -s Z -vpn-instance M 10.5.16.2" command?

- A. The source IP address of the ping packets is X
- B. During the ping operation, the quantity of ICMP Request packets is Y
- C. The size of each ICMP Request packet for the ping operation is Z bytes (excluding the IP header and ICMP header)
- D. The ping packets belong to VPN instance M

91. Which of the following operations may be needed for checking the service traffic path? (Multiple Choice)

- A. Check the service traffic path at the data link layer
- B. Check the service traffic path at the network layer.
- C. Survey the service traffic path planning in the network design phase.
- D. Check the fault frequency.

92. Which of the following link types may appear in OSPF Router-LSAs?

- A. StubNet
- B. P-2-P
- C. TransNet
- D. Vlink

93. Which of the following information is covered in a routine collection of basic device information?

- A. Version of the system software running on the device
- B. License information
- C. Patch information
- D. Configuration saving status

94. Which of the following statements are true about BGP4+?

- A. BGP4+ uses the NEXT_HOP attribute to carry the next hop address of an IPv6 route
- B. BGP4+ does not have the NEXT_HOP attribute.
- C. BGP4+ uses the NLRI attribute to carry IPv6 route prefixes and mask lengths.
- D. BGP4+ uses the Network Address of Next Hop in the MP_REACH_NLRI attribute to carry the next hop address of a route

95. Which information are included in the DHCP binding entry? (Multiple Choice)

- A. MAC address
- B. IP address
- C. Lease time
- D. Physical port and UDP port

96. Which route attributes are used by RRs to prevent routing loops in an AS?

- A. Cluster List
- B. Originator ID
- C. AS-PATH
- D. Nexthop

97. What can be determined from the following figure?

```
<R1>display isis interface
```

Interface information for ISIS(1)

Interface	Id	IPV4.State	IPV6.State	MTU	Type	DIS
GE0/0/0	001	Up	Up	1497	L1/L2	No/No
GE0/0/1	002	Up	Up	1497	L1/L2	No/No
Loop0	001	Up	Up	1500	L1/L2	--

- A. GE0/0/0 on R1 is a Level-1-2 interface.
- B. GE0/0/1 on R1 is a Level-1 interface.
- C. IS-IS IPv6 is enabled on GE0/0/0 of R1.
- D. IS-IS IPv6 is not enabled on GE0/0/1 of R1.