

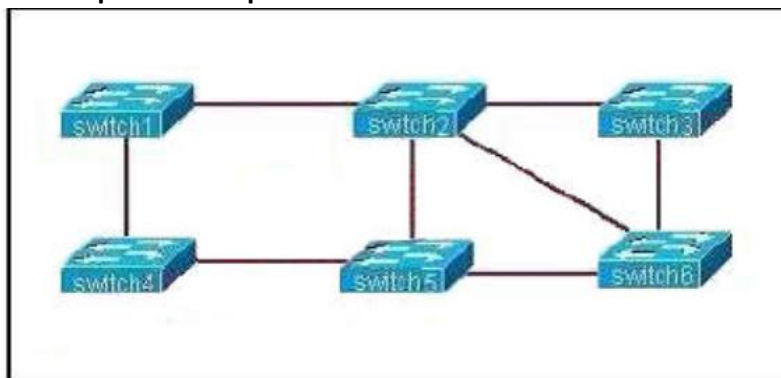
1. What are two benefits of using a single OSPF area network design?

- A. It is less CPU intensive for routers in the single area.
- B. It reduces the types of LSAs that are generated.
- C. It removes the need for virtual links.
- D. It increases LSA response times.
- E. It reduces the number of required OSPF neighbor adjacencies.

2. Which statement describes the process ID that is used to run OSPF on a router?

- A. It is globally significant and is used to represent the AS number.
- B. It is locally significant and is used to identify an instance of the OSPF database.
- C. It is globally significant and is used to identify OSPF stub areas.
- D. It is locally significant and must be the same throughout an area.

3. Refer to Exhibit. Based on the network shown in the graphic which option contains both the potential networking problem and the protocol or setting that should be used to prevent the problem?



- A. routing loops, hold down timers
- B. switching loops, split horizon
- C. routing loops, split horizon
- D. switching loops, LLDP
- E. routing loops, STP
- F. switching loops, STP

4. The OSPF Hello protocol performs which of the following tasks?

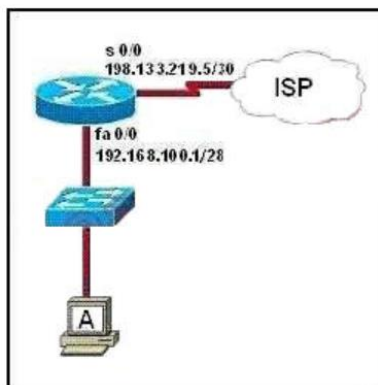
- A. It provides dynamic neighbor discovery.
- B. It detects unreachable neighbors in 90 second intervals.
- C. It maintains neighbor relationships.

- D. It negotiates correctness parameters between neighboring interfaces.
- E. It uses timers to elect the router with the fastest links as the designated router.
- F. It broadcasts hello packets throughout the internetwork to discover all routers that are running OSPF.

5. A network administrator has subnetted the 172.16.0.0 network using a subnet mask of 255.255.192. A duplicate IP address of 172.16.2.120 has accidentally been configured on a workstation in the network. The technician must assign this workstation a new IP address within that same subnetwork. Which address should be assigned to the workstation?

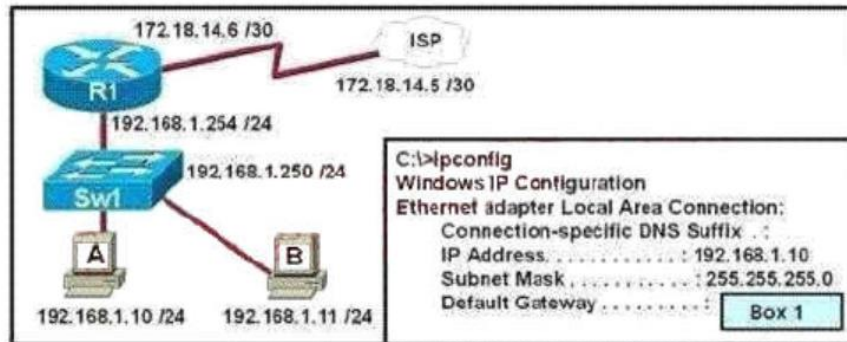
- A. 172.16.1.80
- B. 172.16.2.80**
- C. 172.16.1.64
- D. 172.16.2.64
- E. 172.16.2.127
- F. 172.16.2.128

6. Refer to the exhibit. A network technician has added host A to the network. Host A cannot communicate on the network. A ping that is issued on the host to address 127.0.0.1 fails. What is the problem?



- A. The router is not forwarding the ping packets to network 127.0.0.0.
- B. The remote host at 127.0.0.1 is unreachable.
- C. The default gateway is incorrect.
- D. The IP address of host A is incorrect.
- E. The TCP/IP protocols are not loaded.**

7. Refer to the exhibit. What value should be displayed in Box 1 of the ipconfig output of host A?



- A. 172.18.14.5
- B. 172.18.14.6
- C. 192.168.1.10
- D. 192.168.1.11
- E. 192.168.1.250

F. 192.168.1.254

8. How does a router handle an incoming packet whose destination network is missing from the Routing table?

- A. it discards the packet.
- B. it broadcasts the packet to each network on the router.
- C. it routes the packet to the default route.
- D. it broadcasts the packet to each interface on the router.

9. Which feature facilitates the tagging of frames on a specific VLAN?

- A. Routing
- B. hairpinning
- C. switching
- D. encapsulation

10. Which of these destination addresses does not require the use of the default gateway for a packet from this local host?

```
C:\WINNT\system32\cmd.exe

Connection-specific DNS Suffix . : cisco.com
Description . . . . . : Intel(R) PRO/1000 MT Mobile

Physical Address. . . . . : 00-0D-60-FD-F0-34
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . : Yes
IP Address. . . . . : 172.15.236.227
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 172.16.236.1
DHCP Server . . . . . : 172.16.3.2
DNS Servers . . . . . : 10.4.8.1
                       : 10.5.2.22
Primary WINS Server . . . . . : 10.69.2.87
Secondary WINS Server . . . . . : 10.69.235.228
Lease Obtained. . . . . : Monday, June 11, 2007 9:26:45 AM
Lease Expires . . . . . : Thursday, June 14, 2007 9:26:45 AM

Ethernet adapter Local Area Connection:
```

- A. 10.4.8.2
- B. 10.5.2.27
- C. 10.68.2.88
- D. 172.16.3.228
- E. 172.16.236.4

11. What does an IP address of 0.0.0.0 indicate?

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

12. If the subnet mask for Class A address is 255.255.240.0, how many bits are used for subnetting?

- A. 4
- B. 5
- C. 9
- D. 12

13. OSPF directly runs over the IP protocol as protocol number 89.

- A. TRUE
- B. FALSE

14. Which of the following descriptions regarding the TTL field of the IP packet is correct?

- A. The TTL defines how many packets the source can send.
- B. The TTL defines the duration during which the source can send packets.
- C. The TTL value will decrement by 1 each time the packet is routed.

D. The TTL value will increment by 1 each time the packet is routed.

15. A layer 2 LAN switch generates CAM table entries according to the () of the received frame.

A. Source MAC address

B. Destination MAC address

C. Source IP address

D. Destination IP address

16. Which of the following are routing protocols?

A. IP

B. OSPF

C. BGP

D. IPX

17. Which of the following entries is not included in the routing table?

A. source address

B. next hop

C. destination address

D. cost

18. The network administrator has decided to configure link aggregation in the enterprise network. Which of the following represent advantages of link aggregation?

A. Load balancing.

B. Improved bandwidth.

C. Enhanced reliability.

D. Improved security

19. The network administrator attempts to add interface G0/0/1 on Switch A to Eth-trunk 1, however the command fails. Which of the following may cause this?

A. The interface is operating in half-duplex mode.

B. The interface has been shutdown.

C. The interface is already associated with another Eth-trunk.

D. The interface is an access port.

20. NAT allows for multiple internal addresses to be mapped to a single public address. How does NAT distinguish between the different private addresses when mapping to the same public address?

A. The source MAC address is used.

- B. The destination MAC address is used.
- C. The source port number is used.
- D. The destination port number is used.

21. Which of the following statements regarding Designated Routers in OSPF are correct?

- A. DR is elected by all the routers in the same network segment.
- B. If the priorities of two routers are different, the router with the lower priority will be elected as DR.
- C. If the priorities of two routers are equal, the router with the higher Router ID will be elected as DR.
- D. DR and BDR must be adjacent.

22. When a network administrator configures STP in the network, BPDU begin to be sent by switch. Which of the following statements regarding the BPDU frame are correct?

- A. A BPDU uses the IEEE 802.3 standard frame type
- B. A BPDU uses the Ethernet II standard frame type
- C. The BPDU frame's control field is 3
- D. The destination MAC address field of a BPDU frame is a broadcast address

23. Assuming all STP enabled switches have the same bridge priority. The MAC address of switch A is 00-e0-fc-00-00-40, the MAC address of switch B is 00-e0-fc-0000-10, the MAC address of switch C is 00-e0-fc-00-00-20, and the MAC address of switch D is 00-e0-fc-00-00-80. Which switch will be elected as the root switch?

- A. Switch A
- B. Switch B
- C. Switch C
- D. Switch D

24. Which of the following configurations regarding static route are correct?

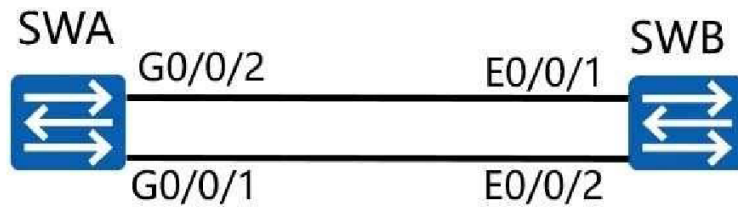
- A. ip route-static 129.1.0.0 16 serial 0
- B. ip route-static 10.0.0.2 16 129.1.0.0
- C. ip route-static 129.1.0.0 16 10.0.0.2
- D. ip route-static 129.1.0.0.255.255.0.0 10.0.0.2

25. Which of the following descriptions about STP designated ports is correct?

- A. Designated ports forward frames destined for the root switch.
- B. Designated ports represent the path leading to the root switch.
- C. Each bridge can have only one designated port.

D. Designated ports are responsible for sending BPDU to connected network segments

26. The switch is operating using STP. All default parameters have been maintained. Which port will be assigned a designated port role?



- A. E0/0/2 of the hub.
- B. G0/0/2 of switch A.
- C. G0/0/1 of switch A.
- D. E0/0/1 of the hub.

27. STP elects ()

- A. One bridge as the Root Bridge and another one as the Backup Root Bridge
- B. One bridge as the Root Bridge
- C. Two bridges as the Root Bridge
- D. One Designated Bridge

28. Which of the following must be used to establish the configuration environment when a router is powered on for the first time?

- A. SSL
- B. SSH
- C. Console port
- D. Telnet

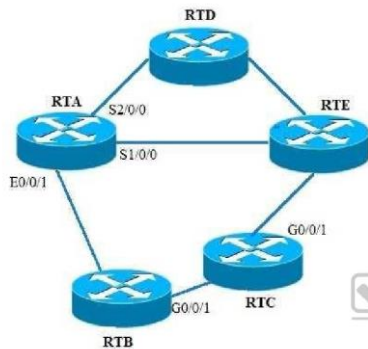
29. Two routers are connected via serial interfaces, for which the link-protocol is PPP. The network administrator wishes to configure PPP authentication to improve security on this link. Which PPP authentication method provides a more secure solution?

- A. CHAP
- B. PAP
- C. MD5
- D. SSH

30. When configuring a router as a PPPoE client, which configuration is not necessary?

- A. Configuration of the dialer-rule
- B. Configuration of the dialer interface
- C. Configuration of an IP address on the dialer interface
- D. Configuration of a password on the dialer interface

31. Refer to the graphic. Which statements correctly explains the forwarding behavior between RTA and RTE?



- A. When the network uses OSPF, data will be forwarded along the path via S1/0/0
- B. When the network uses RIPv2, data will be forwarded along the path via S1/0/0
- C. When the network uses OSPF, data will be forwarded along the path from via E0/0/1
- D. When the network uses RIPv2, data will be forwarded along the path via S2/0/0

32. Which of the following configurations regarding default route configuration is correct?

- A. [Quidway] ip route-static 0.0.0.0 0.0.0.0 172.16.2.1
- B. [Quidway] ip route-static 0.0.0.0 255.255.255.255 172.16.2.1
- C. [Quidway-GigabitEthernet0/0/1] ip route-static 0.0.0.0 0.0.0.0 172.16.2.1
- D. [Quidway] ip route static 0.0.0.0 0.0.0.0 172.16.2.1

33. The network administrator creates VLAN 10 and assigns an IP address to VLANIF10. When using the command “display ip interface brief”, the administrator finds

that VLANIF10 is down. What should be done to enable VLANIF10?

- A. Use the command “undo shutdown” under the interface view for VLANIF10
- B. Assign a physical interface that has either an active or inactive physical state to VLAN 10
- C. Assign only a physical interface that has an active physical state to VLAN 10
- D. Add an interface that has an active physical state and a trunk port associated with VLAN 10

34. In RSTP, a backup port can replace a faulty root port.

A. TRUE

B. FALSE

35. During STP calculation, the port cost is associated with port bandwidth. Which of the following statements about the relation between port cost and port bandwidth is true?

A. Port cost decreases when port bandwidth increases.

B. Port cost increases when port bandwidth increases.

C. Port cost is consistent with port bandwidth.

D. Port cost varies randomly according to port bandwidth.

36. Refer to the command output. Which statement is true regarding this command?

```
ip route-static 10.0.12.0 255.255.255.0 192.168.1.1
```

A. The configuration represents a static route to the 192.168.1.1 network

B. The configuration represents a static route to the 10.0.12.0 network.

C. The preference value of this configured route is 100.

D. If the router has learned the same destination network via a dynamic routing protocol, the static route will always take precedence.

37. Which of the following descriptions about STP designated ports is correct?

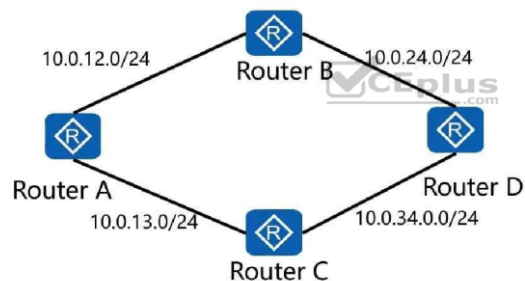
A. Designated ports forward frames destined for the root switch.

B. Designated ports represent the path leading to the root switch.

C. Each bridge can have only one designated port.

D. Designated ports are responsible for sending BPDU to connected network segments.

38. On the network shown in the figure, if all links are Ethernet links and all routers run OSPF, how many DRs will be elected on the entire network?



A. 2

B. 4

C. 3

D. 1

39. [RTA]acl 2020

[RTA-acl-basic-2020]rule permit source 10.0.1.0 0.0.0.255

[RTA-acl-basic-2020]rule deny source 10.0.1.0 0.0.0.255

Refer to the configuration output. Which of the following statements regarding ACL 2020 is correct?

- A. Packets from network 10.0.1.0/24 network will be denied.
- B. Packets from network 10.0.1.0/24 network will be permitted.**
- C. Packets destined for network 10.0.1.0/24 will be denied.
- D. Packets destined for network 10.0.1.0/24 will be permitted.

40. According to OSI or TCP/IP reference model, which layer is responsible for flow control and end to end error checking ?

- A. Physical layer
- B. Data link layer
- C. Network layer
- D. Transport layer**

41. Host A wishes to send data to host C, and generates an ARP request to obtain the destination MAC address. Which statement is true?

- A. The destination IP address of the ARP request is Host C**
- B. The destination MAC address of this ARP request is Host C
- C. The destination IP address for the ARP request is a broadcast IP address.
- D. The destination MAC address of this frame is the MAC address of G0/0/0 on RTA.

42. Refer to the graphic. A switch attempts to forward a frame to the MAC destination 5489-98ec-f011. What operation will occur on the switch?

```
<Quidway>display mac-address
-----
MAC Address  VLAN/VSI   Learned-From  Type
-----
5489-98ec-f018  1/-      GE0/0/13     dynamic
-----
Total items displayed = 1
```

- A. The switch will send a request to obtain the MAC address of 5489-98ec-f011.
- B. The switch will report that the destination is unreachable and report this to the source.
- C. The switch will flood the frame via all ports, with exception of the port on which the frame was received.**
- D. The switch will drop the frame because it does not have an entry in its MAC address table.

43. [R1]display interface GigabitEthernet0/0/0

GigabitEthernet0/0/0 current state : Administratively DOWN

Line protocol current state : DOWN

Refer to the display output. What can be determined based on the output of the display command?

- A. Interface Gigabit Ethernet 0/0/0 is connected to a wrong cable
- B. Interface Gigabit Ethernet 0/0/0 is not associated with an IP address
- C. Interface Gigabit Ethernet 0/0/0 is not associated with a dynamically defined route.
- D. Interface Gigabit Ethernet 0/0/0 has been manually shut down by an administrator.**

44. An OSPF area is a collection of a group of routers and networks. OSPF defines that routers that have the same () belong to the same OSPF area.

- A. neighbors
- B. LSDB**
- C. LSA
- D. adjacency

45. In the PPPoE discovery stage, the PPPoE server assigns a session-id to the PPPoE client in which packet?

- A. PADI
- B. PADO
- C. PADR
- D. PADS**