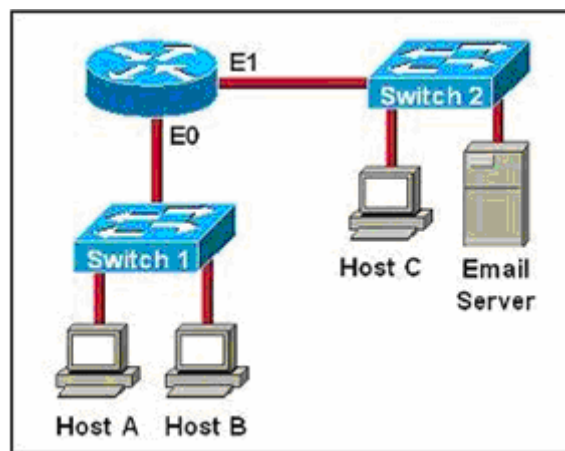




1. Which of the following is true regarding the use of switches and hubs for network connectivity?
- A. Using hubs can increase the amount of bandwidth available to hosts.
 - B. Hubs can filter frames.
 - C. Switches increase the number of collision domains in the network.
 - D. Switches do not forward broadcasts.
 - E. Switches take less time to process frames than hubs take.

2. Which destination addresses will be used by Host A to send data to Host C?
(Choose two.)



- A. the IP address of Switch 1
- B. the MAC address of Switch 1
- C. the IP address of Host C
- D. the MAC address of Host C
- E. the IP address of the router's E0 interface
- F. the MAC address of the router's E0 interface

3. Which of the following correctly describe steps in the OSI data encapsulation process? (Choose two)
- A. The data link layer adds physical source and destination addresses and an FCS to the segment.
 - B. The transport layer divides a data stream into segments and adds reliability and flow control information.
 - C. The presentation layer translates bits into voltages for transmission across the physical link.
 - D. Packets are created when the network layer adds Layer 3 addresses and control information to a segment.



4. Why will a switch never learn a broadcast address?
- A. Broadcasts only use network layer addressing.
 - B. Broadcast addresses use an incorrect format for the switching table.
 - C. A broadcast address will never be the source address of a frame.
 - D. Broadcast frames are never sent to switches.
 - E. A broadcast frame is never forwarded by a switch.
5. Which two values are used by Spanning Tree Protocol to elect a root bridge? (Choose two.)
- A. bridge priority
 - B. IP address
 - C. MAC address
 - D. IOS version
 - E. amount of RAM
 - F. speed of the links
6. A Catalyst 2950 needs to be reconfigured. What steps will ensure that the old configuration is erased? (Choose three.)
- A. Erase flash.
 - B. Restart the switch.
 - C. Delete the VLAN database.
 - D. Erase the running configuration.
 - E. Erase the startup configuration.
 - F. Modify the configuration register.
7. What is the purpose of assigning an IP address to a switch?
- A. To ensure that hosts on the same LAN can communicate with each other.
 - B. To provide local hosts with a default gateway address
 - C. To allow the switch to respond to ARP requests between two hosts
 - D. To allow remote management of the switch.
8. Recently, associates have noticed extremely slow network performance, intermittent connectivity, and connection losses. After entering the "show interfaces" command, you notice that the Ethernet interface is configured as 100 Mbps full-duplex and that there is evidence of late collisions. What could be the cause of this problem?
- A. A routing loop
 - B. Duplex mismatch
 - C. Trunking mode mismatch
 - D. Improperly configured root bridge



9. Which are valid modes for a switch port used as a VLAN trunk? (Choose three.)

- A. transparent
- B. auto
- C. desirable
- D. on
- E. forwarding
- F. blocking

10. Which two of these are characteristics of the 802.1Q protocol? (Choose two.)

- A. It is a Layer 2 messaging protocol which maintains VLAN configurations across networks.
- B. It is a trunking protocol capable of carrying untagged frames.
- C. It modifies the 802.3 frame header, and thus requires that the FCS be recomputed.
- D. It includes an 8-bit field which specifies the priority of a frame.

11. To configure the VLAN trunking protocol to communicate VLAN information between two switches, what two requirements must be met? (Choose two.)

- A. Each end of the trunk line must be set to IEEE 802.1E encapsulation.
- B. The VTP management domain name of both switches must be set the same.
- C. All ports on both the switches must be set as access ports.
- D. One of the two switches must be configured as a VTP server.
- E. A rollover cable is required to connect the two switches together.
- F. A router must be used to forward VTP traffic between VLANs.

12. Which description is true regarding the operation of DHCP?

- A. A DHCP client uses a gratuitous ARP to detect a DHCP server.
- B. A DHCP server uses a ping to detect address conflicts.
- C. A DHCP server uses a gratuitous ARP to detect DHCP clients.
- D. A DHCP client uses a ping to detect address conflicts.

13. Which two subnetworks would be included in the summarized address of 172.31.80.0/20? (Choose two.)

- A. 172.31.17.4/30
- B. 172.31.51.16/30
- C. 172.31.64.0/18
- D. 172.31.80.0/22
- E. 172.31.92.0/22
- F. 172.31.192.0/18



14. Answer needs verification. Running both IPv4 and IPv6 on a router simultaneously is known as what?

- A. 4to6 routing
- B. 6to4 routing
- C. binary routing
- D. dual-stack routing
- E. NextGen routing

15. How is an EUI-64 format interface ID created from a 48-bit MAC address?

- A. by prefixing the MAC address with 0xFF and appending 0xFF to it
- B. by appending 0xFF to the MAC address
- C. by inserting 0xFFFE between the upper three bytes and the lower three bytes of the MAC address
- D. by prefixing the MAC address with 0xFFEE

16. There are no boot system commands in the router configuration in NVRAM router. What is the fallback sequence that the router will use to find an IOS during reload?

- A. TFTP server, Flash, NVRAM
- B. ROM, NVRAM, TFTP server
- C. NVRAM, TFTP server, ROM
- D. Flash, TFTP server, ROM

17. The Routing Information Protocol (RIP) is a dynamic routing protocol used in local area networks. What is the default routing update period for RIPv2?

- A. 180 seconds
- B. 30 seconds
- C. 240 seconds
- D. 15 seconds

18. Which protocol should be used to establish a secure terminal connection to a remote network device? Select the best response.

- A. ARP
- B. SSH
- C. Telnet
- D. WEP
- E. SNMPv1
- F. SNMPv2



19. Which of the commands below would you enter if you wanted to see the configuration register of your router?
- A. show boot
 - B. show version
 - C. show register
 - D. show config
 - E. show flash
20. A router learns about a remote network from EIGRP, OSPF, and a static route. Assuming all routing protocols are using their default administrative distance, which route will the router use to forward data to the remote network?
- A. The router will use the static route.
 - B. The router will use the OSPF route.
 - C. The router will load balance and use all three routes.
 - D. The router will use the EIGRP route.
21. Which characteristics are representative of a link-state routing protocol? (Choose three.)
- A. provides common view of entire topology
 - B. exchanges routing tables with neighbors
 - C. calculates shortest path
 - D. utilizes event-triggered updates
 - E. utilizes frequent periodic updates
22. The OSPF Hello protocol performs which of the following tasks? (Choose two.)
- A. It detects unreachable neighbors in 90 second intervals.
 - B. It uses timers to elect the router with the fastest links as the designated router.
 - C. It broadcasts hello packets throughout the internetwork to discover all routers that are running OSPF.
 - D. It negotiates correctness parameters between neighboring interfaces.
 - E. It maintains neighbor relationships.
 - F. It provides dynamic neighbor discovery.
23. Which tables of EIGRP route information are held in RAM and maintained through the use of hello and update packets? (Choose two.)
- A. RTP table
 - B. SPF table
 - C. query table
 - D. neighbor table
 - E. DUAL table
 - F. topology table



24. Which wireless LAN design ensures that a mobile wireless client will not lose connectivity when moving from one access point to another?
- A. utilizing MAC address filtering to allow the client MAC address to authenticate with the surrounding APs
 - B. using adapters and access points manufactured by the same company
 - C. overlapping the wireless cell coverage by at least 10%
 - D. configuring all access points to use the same channel
25. Which type of attack is characterized by a flood of packets that are requesting a TCP connection to a server?
- A. brute force
 - B. denial of service
 - C. Trojan horse
 - D. reconnaissance