Chapter 2: Network Hardware Essentials Review Questions
Book Title: Guide to Networking Essentials
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Chapter Review

Review Questions

1. Which of the following is a limitation of early networks that used a daisy-chain method of connecting computers? (Choose two.)

    a. Total number of computers that could be connected

    b. The processing speed of the computers connected

    c. Cable length

    d. No Internet access

2. Which of the following is true of a repeater?

    a. Receives frames and forwards them

    b. Determines to which network to send a packet

    c. Receives bit signals and strengthens them

    d. Has a burned-in MAC address for each port

3. Which of the following is true of a hub? (Choose two.)

    a. Usually has just two ports

    b. Transmits regenerated signals to all connected ports

    c. Usually has four or more ports

    d. Works with MAC addresses

4. Which of the following is the unit of measurement by which a network device's bandwidth is usually specified?

    a. Bytes per second

    b. Bits per second

c. Packets per second

d. Bytes per minute

5. Which of the following is a step in the operation of a switch? (Choose two.)

a. Reads source and destination IP addresses

b. Reads source and destination MAC addresses

c. Updates the switching table with destination IP address and port information

d. Looks up the destination MAC address in its switching table

6. What unit of information do switches work with?

a. Frames

b. Bits

c. Packets

d. Bytes

7. Which of the following describes how devices connected to a switch use the bandwidth of the switch?

a. Dedicated bandwidth

b. Half-duplex bandwidth

c. Half-scale bandwidth

d. Shared bandwidth

8. Which element of incoming data does a switch use to create its switching table?

a. Source IP address

b. Destination logical address

c. Destination physical address

d. Source MAC address

9. What purpose does the timestamp serve in a switching table?

a. Tells the switch when to forward a frame

b. Tells the switch how long to wait for a response

c. Tells the switch when to delete an entry

d. Tells the switch how long it has been running

10. What feature of a switch allows devices to effectively communicate at 200 Mbps on a 100 Mbps switch?

a. Uplink port

b. Full-duplex mode

c. Shared bandwidth

d. Bit strengthening

e. Frame doubling

11. To which device is a wireless access point most similar in how it operates?

a. Hub

b. Switch

c. NIC

d. Router

12. What's the purpose of an RTS signal in wireless networking?

a. It allows the AP to request which device is the transmitting station.

b. It allows the AP to tell all stations that it's ready to transmit data.

c. It allows a client to notify the AP that it's ready to send data.

d. It allows a client to request data from the AP.

13. Which of the following is a common operating speed of a wireless access point?

a. 10 Kbps

b. 110 Gbps

c. 600 Kbps

d. 54 Mbps

14. Which of the following is a task performed by a NIC and its driver? (Choose three.)

    a. Provides a connection to the network medium

    b. Converts bit signals into frames for transmission on the medium

    c. Receives packets from the network protocol and creates frames

    d. Adds a header before sending a frame to the network protocol

    e. Adds error-checking data to the frame

15. Which of the following best describes a MAC address?

    a. A 24-bit number expressed as 12 decimal digits

    b. Two 24-bit numbers, in which one is the OUI

    c. A 48-bit number composed of 12 octal digits

    d. A dotted decimal number burned into the NIC

16. Under which circumstances does a NIC allow inbound communications to pass through the interface? (Choose two.)

    a. The source MAC address is the broadcast address.

    b. The destination MAC address matches the built-in MAC address.

    c. The destination MAC address is all binary 1s.

    d. The NIC is operating in exclusive mode.

17. How does a protocol analyzer capture all frames?

    a. It configures the NIC to capture only unicast frames.

    b. It sets all incoming destination addresses to be broadcasts.

    c. It configures the NIC to operate in promiscuous mode.

    d. It sets the exclusive mode option on the NIC.

    e. It captures only multicast frames.

18. Where do you usually find a MAC address?

a. In nonvolatile memory on the NIC

b. In a switch's configuration file

c. In the routing table

d. In the header of a packet

19. Which of the following is the purpose of an SSID?

a. Assigns an address to a wireless NIC

b. Acts as a unique name for a local area connection

c. Acts as a security key for securing a network

d. Identifies a wireless network

20. Which of the following describe the function of routers? (Choose two.)

a. Forward frames from one network to another.

b. Connect LANs.

c. Attach computers to the internetwork.

d. Work with packets and IP addresses.

21. What information is found in a routing table?

a. Computer names and IP addresses

b. Network addresses and interfaces

c. MAC addresses and ports

d. IP addresses and MAC addresses

22. You currently have 15 switches with an average of 20 stations connected to each switch. The switches are connected to one another so that all 300 computers can communicate with one another in a single LAN. You have been detecting a high percentage of broadcast frames on this LAN. You think the number of broadcasts might be having an impact on network performance. What should you do?

a. Connect the switches in groups of five and connect each group of switches to a central hub.

b. Configure the switches to operate in half-duplex mode.

c. Reorganize the network into smaller groups and connect each group to a router.

d. Disable broadcast forwarding on the switches.

23. Which of the following is true about a router versus a switch?

a. Routers connect LANs, switches connect computers.

b. Routers work with physical (MAC) addresses, switches work with logical (IP) addresses.

c. Routers work with frames, switches work with packets.

d. Routers forward broadcast packets, switches do not.

24. If a router receives a packet with a destination network address unknown to the router, what does the router do?

a. Sends the packet out all interfaces

b. Discards the packet

c. Adds the destination network to its routing table

d. Queries the network for the destination network

25. Which of the following is true about a router? (Choose two.)

a. Forwards broadcasts

b. Uses default routes for unknown network addresses

c. Forwards unicasts

d. Is used primarily to connect workstations