

Name: \_\_\_\_\_

Last 4 Digits of SSN \_\_\_\_\_

4 points each question; 1 points for leaving an answer blank.

1. Carrier sense multiple access collision detection is a feature what what LAN technology?
  - a. FDDI
  - b. Token Ring
  - c. ATM
  - d. Ethernet
2. Your network topology is that of a star configuration. From time to time, each workstation will hold a packet called a token, during which time it will transmit data and then pass the token along to the next workstation. What is the logical topology of your network?
  - a. Bus
  - b. Star
  - c. Mesh
  - d. Ring
3. Which physical topology uses the least amount of cabling?
  - a. Star
  - b. Ring
  - c. Bus
  - d. Mesh
4. A physical topology has these two advantages: It is easy to troubleshoot because it has a central point to isolate faults, and it can be organized in a hierarchical structure. Which physical topology is this?
  - a. Ring
  - b. Bus
  - c. Mesh
  - d. Star
5. Which type of problem is most likely to be caused by increasing cable lengths?
  - a. Beaconsing
  - b. Attenuation
  - c. Crosstalk
  - d. Jitter
6. When a signal jumps from one wire to an adjacent wire, this is known as \_\_\_\_\_.
  - a. Attenuation
  - b. Crosstalk
  - c. Jitter
  - d. Beaconsing
7. What is a point-to-point connection?
  - a. A link exists only between two devices.
  - b. A link exists between multiple devices.
  - c. A secure channel on a TCP/IP link.
  - d. A baseband wireless connection.
8. What basic technology describes the low-level rules of communication that each network node must use?
  - a. Logical protocol.
  - b. Physical topology.
  - c. Physical protocol.
  - d. Logical topology.
9. What is the name for a layer 3 switch?
  - a. Bridge
  - b. Router
  - c. Brouter
  - d. Repeater
10. In an Ethernet network, what device should you use to connect two hubs?
  - a. A crossover cable.
  - b. A tone generator.
  - c. A hardware loopback.
  - d. A tone locator.
11. Pat is not able to access network resources from her computer. When she plugs her Ethernet cable into a coworker's machine, she is able to access the network without any problems. Which of the following network components is causing the problem?
  - a. The server.
  - b. The cable.
  - c. The router or gateway.
  - d. The network adapter.
12. Due to rapid growth of the company, your supervisor asks you to help him find a good switch that will break up the network into at least three different subnets, each with a different network identifier. What type of switch do you need?
  - a. Level 2
  - b. Level 3
  - c. Multiplexing
  - d. Token passing.
13. What is the maximum speed of a gigabit network?
  - a. 1 million bits per second.
  - b. 1 trillion bits per second.
  - c. 1 billion bits per second.
  - d. 1 million bytes per second.
14. The amount of time required for a packet to travel through a switch is called what?
  - a. Latency
  - b. Signal oscillation
  - c. Attenuation
  - d. Frequency

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15. What is PPP?
  - a. Point to Point Protocol
  - b. Private Point Protocol
  - c. Positive Point Protocol
  - d. Public Point Protocol
16. \_\_\_\_\_ is the process of taking a large network and dividing it into smaller networks.
  - a. Subnetting
  - b. Gatewaying
  - c. Broadcasting
  - d. Hosting
17. What protocol provides reliable, connection based delivery?
  - a. TCP
  - b. UDP
  - c. IP
  - d. ARP
18. TCP packets are sent in what type of window?
  - a. Sliding
  - b. Expanding
  - c. Slipping
  - d. Diminishing
19. Which type of proxy hides internal IP addresses from the public Internet?
  - a. HTTP
  - b. FTP
  - c. NAT
  - d. DNS
20. We transmitted 4096W of power, and received 2048W of power. Attenuation in decibels is around:
  - a. -1
  - b. -2
  - c. -3
  - d. -4
21. A SNR of 4096 allows us to achieve how many voltage levels?
  - a. 16
  - b. 32
  - c. 64
  - d. 128
22. Which describes the correct order of the OSI model layers from bottom to top?
  - a. Physical, data link, network, transport, session, presentation, application
  - b. Data link, physical network, transport, session, presentation, and application
  - c. Physical, data link, network, transport, presentation, session, and application
  - d. Application, presentation, session, transport, network, data link, and physical.
23. What happens to the data link layer source and destination addresses when packets are passed from router to router?
  - a. They are stripped off and then re-created.
  - b. They are stripped off and replaced with MAC (hardware) addresses.
  - c. They are stripped off and replaced with NetBIOS names.
  - d. They are reformatted according to the information stored in the routing table.
24. You are a network administrator for the Acme Corporation, and you need to design a network for the corporate office in New York City. You design a network with Category 5 unshielded twisted-pair (CAT 5 UTP) cables arranged in a star topology. Which layer of the Open Systems Interconnection (OSI) model is associated with these design components.
  - a. Transport layer
  - b. Data link layer
  - c. Network layer
  - d. Physical layer
25. What did Shannon come up with?
  - a.  $C = 2 B \lg (\text{SNR} + 1)$
  - b.  $C = B \lg M$
  - c.  $C = B \lg (\text{signal} / \text{noise} + 1)$
  - d.  $C = 2 M \log (\text{SNR} + B)$