CIS 49 Midterm; 20081031
Name: _____
Last 4 Digits of SSN _____
4 points each question; 1 points for leaving an answer blank.

1. Which of the following allows for two devices to communicate to each other, but not at the same time?
    a. Simplex
    b. Half duplex
    c. Full duplex
    d. Complex
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. Beaconing
    b. Attenuation
    c. Crosstalk
    d. Jitter
6. If LLC receives a bad frame, it discards it and does not send an ACK (acknowledgment). What is the result of this occurring?
    a. The sending LLC resends the frame.
    b. The receiving LLC sends a NACK to the MAC.
    c. The discarded frame is repackaged by the network layer.
    d. Data is lost.
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. Which of the following is a MAC accress?
    a. 192.158.24.24
    b. 57204AB22
    c. 1423:3453
    d. 0A:55:BB:7A:FE:57
9. What is the name for a layer 3 switch?
    a. Bridge
    b. Router
    c. Brouter
    d. Repeater
10. Which layer initiates requests for services on a remote system such as FTP, DNS or NFS?
    a. Presentation
    b. Session
    c. Logical Link Control
    d. Application
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. Connection-oriented communication and connectionless communication are two ways that communication can be implement on a network. Which of the following is often associated with connectionless communication?
    a. Fast but unreliable delivery.
    b. Fiber-optic cable.
    c. Error-free delivery.
    d. Infrared technology.

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14. Pat is planning to setup an internet web servier at her company. Employees will be able to access the web server using the server's host name. Which of the fllowing services should Pat install on her intranet to provide name resolution?
    a. DHCP
    b. DNS
    c. FTP
    d. WINS
15. What is the purpose of a CRC?
    a. To ensure that frames are received intact.
    b. To verify NIC's functionality.
    c. To check cable integrity.
    d. None of the choices apply.
16. Which protocol is responsible for transmitting the email message through the internet.
    a. MTA
    b. SNMP
    c. SMTP
    d. DNS
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 (SNR + 1)
    b. C = B lg M
    c. C = B lg (signal / noise + 1)
    d. C = 2 M log (SNR + B)

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