

CISC 7330X Final Exam

Pick the best answer that fits the question. 5-points per question. Not all of the answers may be correct. If none of the answers fit, write your own answer.

1. The correct order of OSI model layers is:
 - a. Application, Presentation, Data Link, Transport, Network, Session, Physical
 - b. Application, Presentation, Transport, Session, Network, Data Link, Physical
 - c. Application, Presentation, Session, Network, Transport, Data Link, Physical
 - d. Application, Presentation, Session, Transport, Network, Data Link, Physical
 - e. None of the above, answer is: _____

2. Polar coding method (as opposed to bipolar coding):
 - a. cannot synchronize on every bit
 - b. has an AC component
 - c. has a DC component
 - d. requires twice the bandwidth than bipolar coding method
 - e. None of the above, answer is: _____

3. Slotted ALOHA improved:
 - a. Latency Time.
 - b. Vulnerable Time.
 - c. Propagation Time.
 - d. Frame Time.
 - e. None of the above, answer is: _____

4. In Sliding Window ARQ, selective reject NAK:
 - a. Retransmits all frames following the NAK.
 - b. Rejects all messages prior to NAK.
 - c. Acknowledges everything prior to NAK.
 - d. Selectively rejects all messages following NAK.
 - e. None of the above, answer is: _____

5. Length of an Ethernet network is limited by:
 - a. data rate
 - b. packet size
 - c. CSMA/CD
 - d. all of the above
 - e. None of the above, answer is: _____

6. Which protocol is used to find the MAC address:

- a. DNS
 - b. SMTP
 - c. ARP
 - d. TCP
 - e. None of the above, answer is: _____
7. For Fast Ethernet operating in half-duplex mode, the maximum length of the lan is closer to:
(a) Answer is: _____
8. For Gigabit Ethernet, the CSMA/CD happens during first N of each frame. What is N?
(a) Answer is: _____
9. Frequency Division Multiplexing is applicable when:
- a. Carrier wavelength propagation delay is lower.
 - b. Signal to Noise ratio is lower.
 - c. Carrier bandwidth exceeds that of our signal.
 - d. Carrier data rate exceeds that of our signal.
 - e. None of the above, answer is: _____
10. Time Division Multiplexing is applicable when:
- a. Carrier wavelength propagation delay is lower.
 - b. Carrier data rate exceeds that of our signal.
 - c. Carrier bandwidth exceeds that of our signal.
 - d. Signal to Noise ratio is lower.
 - e. None of the above, answer is: _____
11. The MAC layer is responsible for:
- a. Routing.
 - b. End to end error correction.
 - c. Dealing with collisions.
 - d. Converting ASCII to EBCDIC.
 - e. None of the above, answer is: _____
12. Ring network,
- a. devices connect using an active interface.
 - b. devices connect using a passive interface.
 - c. LLC layer handles CSMA/CD
 - d. all of the above
 - e. None of the above, answer is: _____

13. On a bus network,
- devices connect using an active interface.
 - devices connect using a passive interface.
 - LLC layer handles CSMA/CD
 - all of the above
 - None of the above, answer is: _____
14. If bandwidth is 6Mhz, and SNR is 60, max capacity of the channel is:
- (a) Answer is: _____
15. If bandwidth is 6Mhz, and SNR is 60, about how many voltage levels are required to achieve maximum capacity
- (a) Answer is: _____
16. (use calculator if needed) We are transmitting data at a rate of 1000 bits per second. During transmission, the noise introduces errors so that, on average, 20% of bits are received incorrectly (i.e.: a 0 as 1, or 1 as 0). The maximum error free capacity of this channel is:
- (a) Answer is: _____
17. We are transmitting data at 100W, and detect only 80W when receiving, attenuation in decibels is:
- (a) Answer is: _____
18. The Data-Link layer is responsible for:
- Routing
 - Name resolution
 - Point to Point transmission
 - Pinging
 - None of the above, answer is: _____
19. Network switches operate at:
- Session Layer
 - Network layer
 - Physical Layer
 - Data Link Layer
 - None of the above, answer is: _____
20. Routers operate at:
- Data Link Layer
 - Physical Layer
 - Network layer
 - Session Layer
 - None of the above, answer is: _____