

CS 898T Mobile and Wireless Networks Quiz 2 - Name: _____
Spring 2004

(50 points - 2 points for each problem)

- (B) 1. Which layer of the OSI model translates physical addresses to logical addresses?
(A) physical layer (B) network layer (C) transport layer (D) session layer
- (B) 2. Which IEEE standard defines the LLC and MAC sublayers?
(A) 802.1 (B) 802.2 (C) 802.3 (D) 802.5
- (B) 3. 10Base-T can support segments of up to
(A) 10 m (B) 100 m (C) 200 m (D) 500 m
- (A) 4. A network is wired using a single length of coaxial cable, with nodes connected at various points along the cable. Which network topology is in use?
(A) bus (B) star (C) ring (D) mesh
- (B) 5. Which network connectivity device(s) function at the network layer of the OSI model? (check all that apply)
(A) bridges (B) routers (C) hubs (D) routers
- (C) 6. Which device is likely to be used only in wide-area networks?
(A) router (B) bridge (C) CSU/DSU (D) hub
- (D) 7. Which media access method is used in wireless LAN?
(A) CDMA/CD (B) CDMA/CA (C) CSMA/CD (D) CSMA/CA
- (C) 8. Which Ethernet standard uses UTP cable?
(A) 10Base2 (B) 10Base5 (C) 10Base-T (D) 10Base-F
- (A) 9. Which type of WAN media uses a modem?
(A) PSTN (B) X.25 (C) ISDN (D) Frame Relay
- (C) 10. Which of the following WAN technologies offers the highest bandwidth?
(A) T1 (B) T3 (C) OC-3 (D) ISDN
- (A) 11. Which of the following WAN technologies use packet switching? (check all that apply)
B, D (A) ISDN (B) ATM (C) SONET (D) Frame Relay
- (B) 12. Which of the following WAN types typically use fiber optic media?
(A) ISDN (B) SONET (C) DS3 (D) T1
- (B) 13. An Ethernet link is working at 20 Megabaud. What is the data transfer rate for this link?
(A) 5 Mbps (B) 10 Mbps (C) 20 Mbps (D) 80 Mbps.
- (D) 14. Which modulation techniques is used in 802.11g?
(A) FHSS (B) QPSK (C) DSSS (D) OFDM
- (A) 15. Based on the QoS, which application requires high reliability?
(A) Web access (B) audio on demand (C) videoconference (D) none of the above
- (A) 16. An 802.16 network has a channel width of 20 MHz. When QPSK is used, what is the transfer rate?
(A) 40 Mbps (B) 64 Mbps (C) 80 Mbps (D) 120 Mbps
- (B) 17. A DHCP server can be used to provide the same functionality as a(n):
(A) ICMP server (B) RARP server (C) TFTP server (D) none of the above

- (D) 18. The UDP provides a delivery service that is:
(A) connection-oriented and reliable (B) connectionless and reliable
(C) connection-oriented and unreliable (D) connectionless and unreliable
- (B) 19. Which function is not used in UDP socket programming in C?
(A) bind (B) accept (C) socket (D) sendto
- (D) 20. Which is not a routing algorithm or protocol?
(A) AODV (B) BGP (C) OSPF (D) none of the above
- (D) 21. The assigned port for the POP server is:
(A) 21 (B) 23 (C) 25 (D) 110
- (A) 22. A media server is transmitting a video of 5×2 inch at a resolution 60 pixels per inch, 2 bytes/pixel color encoding and 30 frames/second. Without loss of the resolution and color, how many frames per second can this media server transfer on a channel of 5.76 Mbps?
(A) 10 (B) 20 (C) 40 (D) none of the above
- (C) 23. Using the divisor polynomial $x^4 + x + 1$ for CRC, what frame will be transmitted for the data $M = 1101011011$?
(A) 11010110111100 (B) 11010110111101 (C) 11010110111110 (D) none of the above
- (A) 24. In which layer RARP is?
(A) data link (B) network (C) transport (D) session
- (D) 25. For the network 168.78.16.0/22, what is the netmask?
(A) 255.255.224.0 (B) 255.255.240.0 (C) 255.225.248.0 (D) 255.255.252.0