

CS 898T Mobile and Wireless Networks Quiz 3 - Name: _____
Spring 2004

(50 points - 2 points for each problem)

- (A) 1. WAP is a (A) protocol (B) hardware (C) software (D) network architecture
- (C) 2. 100Base-T can support transfer rate of up to
(A) 1 Gbps (B) 500 Mbps (C) 100 Mbps (D) 10 Mbps
- (B) 3. 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) 40 Mbps.
- (A) 4. Which framing approach is used in PPP?
(A) character stuffing (B) bit stuffing (C) clock-based framing (D) frequency framing
- (A) 5. Which network connectivity device(s) function at the data link layer of the OSI model? (Check all that apply)
(A) bridges (B) routers (C) hubs (D) brouters
- (D) 6. Which is not a connection-oriented network?
(A) X.25 (B) Frame Relay (C) ATM (D) none of the above.
- (D) 7. Which media access method is used in wireless LAN?
(A) CDMA/CD (B) CDMA/CA (C) CSMA/CD (D) CSMA/CA
- (B) 8. Which Ethernet standard uses UTP cable?
(A) 10Base-F (B) 10Base-T (C) 10Base5 (D) 10Base2
- (C) 9. When the Packet InterNet Groper (ping) is executed, which type of message is transmitted:
(A) an ICMP Time Request (B) an ICMP Redirect (C) an ICMP Echo Request (D) none of the above
- (C) 10. The standard for personal area network is
(A) 802.3 (B) 802.11 (C) 802.15 (D) 802.16
- (D) 11. Which is not the modulation method?
(A) amplitude (B) frequency (C) phase (D) none of the above
- (D) 12. Which byte order is used in the Internet protocols?
(A) forward-endian (B) reverse-endian (C) little-endian (D) big-endian
- (D) 13. If a datagram that is 1500 bytes long (20-byte IP header plus 1480 bytes of data) arrives for transmission across a network that has the maximum transmission unit (MTU) of 532 bytes. How long will each of the segments be (including the IP header)?
(A) 512 bytes, 512 bytes, and 496 bytes (B) 532 bytes, 532 bytes, and 516 bytes
(C) 532 bytes, 532 bytes, and 496 bytes (D) none of the above
- (B) 14. Which modulation techniques is used in 802.11b?
(A) FHSS (B) DSSS (C) QPSK (D) OFDM
- (A) 15. Based on the QoS, which application requires high reliability?
(A) e-mail (B) audio on demand (C) videoconference (D) none of the above
- (C) 16. The assigned port for the SMTP server is:
(A) 21 (B) 23 (C) 25 (D) 110
- (B) 17. A BOOTP 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

- (A) 18. The TCP provides a delivery service that is:
(A) connection-oriented and reliable (B) connectionless and reliable
(C) connection-oriented and unreliable (D) connectionless and unreliable
- (A) 19. In which function do we specify SOCK_STREAM in C socket programming?
(A) socket (B) bind (C) connect (D) listen
- (D) 20. Which is not a routing algorithm or protocol?
(A) AODV (B) BGP (C) OSPF (D) none of the above
- (C) 21. An 802.16 network has a channel width of 20 MHz. When QAM-16 is used, what is the transfer rate?
(A) 40 Mbps (B) 64 Mbps (C) 80 Mbps (D) 120 Mbps
- (B) 22. A media server is transmitting a video of 3×2 inch at a resolution 60 pixels per inch, 2 bytes/pixel color encoding and 25 frames/second. Without loss of the resolution and color, how many frames per second can this media server transfer on a channel of 6912 Kbps?
(A) 10 (B) 20 (C) 40 (D) none of the above
- (D) 23. Using the divisor polynomial $x^4 + x + 1$ for CRC, what frame will be transmitted for the data $M = 1101011010$?
(A) 11010110111100 (B) 11010110111101 (C) 11010110111110 (D) none of the above
- (D) 24. In which layer HTTP is?
(A) data link (B) network (C) transport (D) application
- (C) 25. For the network 168.78.16.0/21, what is the netmask?
(A) 255.255.224.0 (B) 255.255.240.0 (C) 255.225.248.0 (D) 255.255.252.0