

CS 898T Mobile and Wireless Networks Quiz 1 - Name: _____
Spring 2004

(50 points - 2 points for each problem)

- (D) 1. TCP/IP is a
 - (A) protocol (B) hardware (C) software (D) network architecture
- (C) 2. What is the baud rate of the standard 10-Mbps Ethernet?
 - (A) 5 Megabaud (B) 10 Megabaud (C) 20 Megabaud (D) none of the above
- (B) 3. Which framing approach is used in HDLC?
 - (A) character stuffing (B) bit stuffing (C) clock-based framing (D) frequency framing
- (D) 4. Which is not a connection-oriented network?
 - (A) X.25 (B) Frame Relay (C) ATM (D) none of the above.
- (B) 5. Which transmission techniques are not specified in 802.11?
 - (A) FHSS (B) QPSK (C) DSSS (D) OFDM
- (A) 6. Which statement about IEEE 802.11g is incorrect?
 - (A) It operates at radio frequencies 5 GHz. (B) It uses OFDM modulation.
 - (C) It makes possible data speeds as high as 54 Mbps. (D) none of the above
- (C) 7. 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
- (A) 8. In which layer PPP is?
 - (A) data link (B) network (C) transport (D) session
- (D) 9. Which is not the modulation method?
 - (A) amplitude (B) frequency (C) phase (D) none of the above
- (A) 10. Based on the QoS, which application requires high reliability?
 - (A) e-mail (B) audio on demand (C) videoconference (D) none of the above
- (C) 11. An 802.16 network has a channel width of 20 MHz. When QAM16 is used, what is the transfer rate?
 - (A) 40 Mbps (B) 64 Mbps (C) 80 Mbps (D) 120 Mbps
- (B) 12. Which types of messages are not encapsulated in IP datagrams?
 - (A) TCP (B) DHCP (C) ICMP (D) none of the above
- (B) 13. A RARP server can be used to provide the same functionality as a(n):
 - (A) DNS server (B) BOOTP server (C) TFTP server (D) none of the above
- (D) 14. The Internet Protocol (IP) provides a delivery service that is:
 - (A) connection-oriented and reliable (B) connectionless and reliable
 - (C) connection-oriented and unreliable (D) connectionless and unreliable
- (C) 15. In which function do we specify PF_UNIX or PF_INET?
 - (A) connect (B) listen (C) socket (D) bind
- (C) 16. If a datagram that is 1440 bytes long (20-byte IP header plus 1420 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 396 bytes (B) 532 bytes, 532 bytes, and 396 bytes
 - (C) 532 bytes, 532 bytes, and 416 bytes (D) none of the above

- (D) 17. Which device operates on the transport layer?
(A) repeater (B) bridge (C) router (D) gateway
- (D) 18. Which is not a routing algorithm or protocol?
(A) AODV (B) BGP (C) OSPF (D) none of the above
- (C) 19. A video signal at a resolution of 640 x 480 pixels, 3 bytes/pixel color encoding, and 24 frames/second.
What is the bandwidth necessary for transmitting in real time?
(A) 58982400 bps (B) 117964800 bps (C) 176947200 bps (D) 235929600 bps
- (A) 20. For the network 168.78.16.0/21, what is the last IP address?
(A) 168.78.23.255 (B) 168.78.24.255 (C) 168.78.31.255 (D) 168.78.32.255
- (B) 21. The assigned port for the SSH server is:
(A) 21 (B) 22 (C) 23 (D) 25
- () 22. Using the divisor polynomial $x^4 + x + 1$ for CRC, what frame will be transmitted for the data
 $M = 110011000$?
(A) 1100110011100 (B) 1100110011101 (C) 1100110011000 (D) 1100110011001
- (B) 23. IPv6 represents local loopback address as
(A) ::127.0.0.0 (B) ::1 (C) ::0 (D) none of the above
- (C) 24. Which is not an issue to be concerned with in the data link layer?
(A) framing (B) error control (C) routing (D) flow control
- (D) 25. In Windows, which command can be used to know the Ethernet adapter local area
connection of the machine you are using?
(A) netstat (B) ping (C) traceroute (D) ipconfig