

Register Number:.....

B.E., DEGREE EXAMINATIONS MAY/JUNE 2013

Seventh Semester

COMPUTER SCIENCE AND ENGINEERING

ITY107: Mobile Communications

Time: Three Hours

Maximum Marks: 100

Answer ALL Questions:-

PART A (10x1=10 Marks)

1. In _____ transmitter uses one frequency for several bit periods.
 - a. Slow hopping
 - b. Fast hopping
 - c. Medium hopping
 - d. None of the above
2. Spread Aloha Multiple Access (SAMA) is a combination of
 - a. SDMA and TDMA
 - b. CDMA and TDMA
 - c. FDMA and TDMA
 - d. None of the above
3. Handover may be due to
 - a. Mobile station moves out of range of BTS
 - b. Traffic in one cell is too high
 - c. Both a and b
 - d. None of the above
4. _____ satellite are visible from earth only for ten minutes.
 - a. GEO
 - b. LEO
 - c. MEO
 - d. HEO
5. RTS stands for
 - a. Reply To Send
 - b. Response To Send
 - c. Request To Send
 - d. None of the above
6. In which state does a Bluetooth device remains in order to save battery power.
 - a. Either sniff state or Hold state or Park state
 - b. Both Hold and Park state
 - c. Both Sniff and Park state
 - d. Both Sniff and Hold state
7. _____ denotes a socket address.
 - a. Combination of MAC address and port address
 - b. Combination of IP address and MAC address
 - c. Combination of IP address and port address
 - d. All of the above
8. The process of putting one packet within another is called as _____.
 - a. Decapsulation
 - b. Encapsulation
 - c. Tunnelling
 - d. None of the above
9. The behavior TCP shows after the detection of congestion is called _____.

- a. Fast start b. Slow start c. Fast retransmit d. Fast recovery
10. The goal of M-TCP is same as
- a. I-TCP b. Snooping TCP c. Both a and b d. None of the above

PART B (10x2 = 20 Marks)

11. How are guard spaces realized between users in CDMA?
12. What do you mean by FHSS?
13. What are the security services offered by GSM?
14. State the advantages of GEO satellite system.
15. What is the main physical reason for the failure of many MAC schemes known from wired networks? What is to be done in wireless networks to avoid this effect?
16. What is the main disadvantage of infrared transmission?
17. Give any two application for adhoc networks.
18. What is the basic purpose of DHCP? Name the entities of DHCP.
19. What are the advantages of snooping TCP over indirect TCP?
20. What is the purpose of wireless application environment?

PART C (5 x 14 = 70 Marks)

21. a) Explain how collision is avoided using TDMA. Write about any four methods
- (OR)**
- b) With an illustrative example explain the coding, spreading and reconstruction of data in CDMA system.
22. a) Explain the functional architecture of a GSM system with a neat diagram
- (OR)**
- b) Describe in detail about DAB broadcast system with suitable diagrams
23. a) Explain how power management is done in 802.11 for both infrastructureless and infrastructure based networks.
- (OR)**
- b) Explain how channel access is done in HIPERLAN using EY-NPMA

24. a) Explain the working of DHCP protocol with a neat diagram.

(OR)

b) Define encapsulation. Discuss in detail about the different encapsulation methods adopted in tunneling with a neat block diagram.

25. a) How does Indirect TCP work? Discuss its advantages and disadvantages.

(OR)

b) Explain the functions of the components in WAP architecture.
