ANNA UNIVERSITY, CHENNAI
B.Tech DEGREE EXAMINATIONS-OCT 2011

IT384-MOBILE COMPUTING
VI SEMESTER

Time: 3Hrs **Max.Marks: 100**

(Answer all questions)

PART A (10*2=20 MARKS)

1. State the reason for the loss of signal even if no matter exits between the sender and the receiver in the free space.
2. What is the difference between TDMA and CDMA techniques?
3. What is the relation between GSM and GPRS?
4. List down the sequence of events occur during handoff process.
5. Compare the MAC layers of IEEE 802.11 and Bluetooth.
6. Comment on "Ad hoc topology is superior to base station topology during natural disaster".
7. What is IP-in-IP encapsulation?
8. How redundant links are handled in wireless networks compared to wired networks?
9. List down the disadvantages of M-TCP.
10. What are the Push and pull mechanisms followed by WSP.

PART B (5*16=20 MARKS)

11. a) i. What are the benefits of reservation schemes? How collisions are avoided during data transmission? (6)

ii. Write notes in detail on
1. Hidden and exposed terminals.
2. Spread spectrum (10)

12. a) i. Discuss in detail about the various logical channels of GSM. (8)

ii. Where and when can collisions occur while accessing the GSM system? Compare possible collisions caused by data transmission in standard GSM, HSCSD and GPRS. (8)

(Or)

b) Discuss in detail about Handover mechanism in wireless systems. How security is maintained in GSM? (16)

13. a) i. Discuss in detail about the protocol stack of Bluetooth. Elucidate your answer by stating the reasons for the various protocols existence and their role. (16)

(Or)

b) How is roaming on layer 2 achieved, and how are changes in topology reflected? What are the differences between infrastructure based and ad-hoc networks with reference to roaming? (16)

14. a) i. Discuss the concept of Mobile IP in detail. (10)
ii. Write notes on Routing constraints in wireless networks. (6)

(Or)

b) With a suitable example compare the behavior of DSDV and AODV algorithms with their routing table contents. (16)

15. a) i. Compare ITCP with Snooping TCP with example network scenarios. (8)
ii. Discuss fast-retransmit and fast-recovery mechanisms of mobile TCP in detail. (8)

(Or)

b) i. Explain in detail about the architecture of WAP. (10).
ii. Write notes on WML and WML Script (6)