

Register Number:

M.E. DEGREE EXAMINATIONS: APRIL/MAY 2010

Second Semester

COMPUTER SCIENCE AND ENGINEERING

CSE553: Mobile Computing

Time: Three hours

Maximum Marks: 100

Answer ALL Questions:-

PART A (10 x 2 = 20 Marks)

1. Differentiate between the features of hidden and exposed terminals.
2. Give the advantages and disadvantages of code division multiple accesses.
3. List the design goals for wireless LANs.
4. Give the components of WATM.
5. What are special frames? Draw their format.
6. List the problems with mobile IP.
7. Give the influence of mobility on TCP-mechanisms.
8. What is TCP slow-start algorithm?
9. What do you mean by wireless telephony application?
10. List the requirements of wireless application environment.

PART B (5 x 16 = 80 Marks)

11. a) (i) Explain the system architecture of the GSM system. (10)
(ii) Describe the handover operation followed in GSM. (6)

(OR)

b) Write in detail about the following:

- (i) Digital audio broadcasting (8)
(ii) Multimedia Object Transfer Protocol (8)

12. a) Explain the different ways of accessing the medium access control layer of IEEE 802.11.

(OR)

b) Describe the process of wireless communication using Bluetooth concept.

13. a) Explain the following with reference to mobile IP:
(i) IP packet delivery and Agent discovery (8)

(ii) Registration and Encapsulation (8)

(OR)

b) (i) Enumerate on the features of Dynamic Host Configuration Protocol. (8)

(ii) Give an overview of DSDV and Dynamic source routing protocols. (8)

14. a) Explain the following with reference to mobile transport layer:

(i) Fast transmit / recovery and Transmission /time-out freezing (8)

(ii) Selective retransmission and Transaction oriented TCP (8)

(OR)

b) Describe the working of following protocols:

(i) Indirect TCP (8)

(ii) Snooping TCP (8)

15. a) Explain the following in detail:

(i) Wireless Datagram Protocol (6)

(ii) Wireless Transport Layer Security (10)

(OR)

b) Describe the functions of Wireless Telephony Application with an example.
