Total No. of Questions : 09

B.Tech.(ECE) (2011 Batch Elective-III) / (ETE) (2011 Onwards Elective-III)
(Sem.–7,8)

MOBILE COMPUTING

Subject Code : BTEC-919

Paper ID : [A3014]

Time : 3 Hrs.
Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. Write briefly :

   a. What is the principle of frequency reuse in the context of a cellular network?

   b. What is the function of HLR and VLR in cellular communication systems?

   c. What is the difference between hard and soft handoff?

   d. Define Mobile TCP.

   e. State the need of Fast retransmission and Recovery.

   f. List and briefly define the capabilities provided by Mobile IP.

   g. Define wireless application protocol (WAP).

   h. Write the properties and application of MANET.

   i. Define home agent and foreign agent of wireless adhock network.

   j. What are piconet and scatternet in Bluetooth?

SECTION-B

2. Explain the services and Architecture of GSM using suitable diagram.

3. Explain the procedure of tunneling and encapsulation in Mobile IP using suitable diagram.

4. Explain Selective retransmission and Transaction oriented TCP.

5. Explain the component of WAP architecture and its application environment.

6. Classify the types of security attacks in mobile adhoc network. Explain how security provisioning in adhoc wireless networks differ from that in infrastructure based networks.

SECTION-C

7. Describe the mobile IP protocol. Explain how IP packets are transmitted between mobile nodes. What is the difference between packet delivery mechanism of Mobile IP and standard IP protocol?

8. What are the characteristics of routing protocols for adhoc wireless network? Give the classification of routing protocols for adhoc wireless network. Explain any one table driven routing protocol for adhoc wireless network.

9. Write short notes on following :

   a. Bluetooth

   b. Location Management of mobile network