[4959]-1164

B.E. (Computer Engineering) (End Semester)
MOBILE COMPUTING
(2012 Pattern) (Elective - III)

Time : 2½ Hours]

[Max. Marks : 70

Q1) a) What are different technical challenges and limitations of wireless communication? **[5]**

   b) Why do you think the ciphering key Kc must differ from one call to another? **[5]**

OR

Q2) a) What is Handover? Explain various types of it. **[5]**

   b) Explain functioning of Cellular network. How the given set of frequencies are used to increase capacity of a network? **[5]**

Q3) a) Describe mobility management with suitable diagram. **[5]**

   b) Explain the multiple access efficiency of FDMA system. **[5]**

OR

Q4) a) Explain Wireless Communication System with Block Diagram. **[5]**

   b) Explain HSPA communication standard with its features and Architecture. **[5]**

Q5) a) What is mobile IP explain in detail. **[5]**

   b) What do you mean by tunneling, encapsulation and de capsulation? **[5]**

   c) Describe Indirect TCP. Explain the modifications of Indirect TCP as the selective repeat protocol and mobile-end transport protocol. **[8]**

OR

P.T.O.

Q6) a) Explain Mobile TCP. How does a supervisory host send TCP packets to the mobile node and to a fixed TCP connection? Give the advantages and disadvantages of Mobile TCP. **[8]**

b) What is Reactive Routing Protocol in MANET? Describe DSR Routing Protocols. **[5]**

c) Explain in detail the security threats to a MANET? **[5]**

Q7) a) Show architecture for data dissemination and broadcast. Explain the reason for communication asymmetry in mobile network. **[8]**

b) What are the different types of data synchronizations in mobile computing systems? Describe synchronization usage models in mobile applications **[8]**

OR

Q8) a) Describe pull-based data-delivery mechanism. What are the advantages and disadvantages of pull-based data-delivery? **[8]**

b) Explain in detail the classification of data delivery mechanism in Mobile Computing. **[8]**

Q9) a) Write short note on the following : **[8]**

i) Mobile agent

ii) Android OS

b) Explain the role of a gateway in connecting networks using different protocols. Describe a transcoding gateway and its applications in mobile computing systems **[8]**

OR

Q10) a) Write short note on the following : **[8]**

      i)   Characteristics of Mobile OS

      ii)   Mobile File System

    b) Describe the functions of a mobile agent. Why does an agent move from tier to tier during an application? Distinguish between an agent and a server. **[8]**

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