Code No: **RT41053** **R13** **Set No. 1**

IV B.Tech I Semester Supplementary Examinations, February - 2019

MOBILE COMPUTING

(Common to Computer Science and Engineering and Information Technology)

Time: 3 hours **Max. Marks: 70**

Question paper consists of Part-A and Part-B
Answer ALL sub questions from Part-A
Answer any THREE questions from Part-B
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PART–A *(22 Marks)*

1. a) Enlist the applications of Mobile computing. [4]
   b) What is Exposed station problem? [4]
   c) What are the requirements for implementing Mobile IP? [4]
   d) List out advantages of Snooping TCP. [3]
   e) Write about different Broadcast models. [3]
   f) List the applications of MANETs. [4]

PART–B *(3x16 = 48 Marks)*

2. a) With a neat diagram, Explain the architectural layers of mobile computing. [8]
   b) How the handover decision takes place in GSM depending on receiver signal strength? Explain. [8]

3. a) Give the main reason for implementing specialized MAC in wireless networks. [8]
   b) Explain about the Code Division Multiple Access technique. [8]

4. a) What is meant by Agent Discovery in IP routing? Explain the format of Agent Advertisement Packet. [8]
   b) Explain in detail about various ways of performing IP-in-IP encapsulation. [8]

5. a) How a packet is delivered in Indirect TCP? Explain. Also discuss the advantages and disadvantages of I-TCP. [8]
   b) What do you mean by Query processing? Explain the Query Processing architecture. [8]

6. a) Explain the Tree based Index/Distributed indexing scheme and also discuss its merits and demerits. [8]
   b) Explain about one-to many and many-to-many data synchronization mechanisms in mobile computing systems. [8]

7. a) Discuss the challenges and issues in implementing MANETs. [8]
   b) Explain the Destination Sequenced Distance Vector routing protocol [8]