

IV B.Tech I Semester Supplementary Examinations, July/Aug - 2021

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 FOUR questions from Part-B*

PART-A(14 Marks)

1. a) Write about the concepts of localization. [3]
- b) Write a short note on Medium Access Control. [2]
- c) What is mobility binding? [2]
- d) Discuss any two data flow control methods. [2]
- e) Describe categories of synchronization of data. [3]
- f) Differentiate reactive and proactive routing protocols. [2]

PART-B(4x14 = 56 Marks)

2. a) Discuss the services and system architecture of GSM. [7]
- b) Discuss the solutions for energy constraint problem and security constraints in mobile devices. [7]
3. a) Discuss about CDMA and TDMA. [7]
- b) Describe the functions of MAC, physical layer and basic protocol layers in IEEE802.11 [7]
4. a) What is reverse tunneling? Explain the advantages of it in multicasting and firewall security. [7]
- b) Explain the following location management protocols [7]
 - i) Agent discovery through agent advertisement
 - ii) Agent Solicitation
5. a) What are the methods used by transport layer in wireless and mobile networks? Explain. [7]
- b) Describe client server computing and how the clients receive required database copies through the servers? [7]
6. a) What is selective tuning? Explain directory, hash0based and index-based selective tuning methods in detail. [7]
- b) How to synchronize data between two mobile nodes? Explain various synchronization protocols used for synchronizing the mobile applications. [7]
7. a) Explain in detail about the role of mobile agents in service discovery. [7]
- b) Discuss the simple API for XML and also the benefits of it. [7]