Code No:**R164105C** **R16** **Set No. 1**

IV B.Tech I Semester Supplementary Examinations, February - 2020

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
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PART–A *(14 Marks)*

1. a) Write about localization and Handover in mobile communication. [3]
   b) Write short notes on medium access by modulation. [2]
   c) What is Time-to-live? [2]
   d) Write about slow start method. [2]
   e) Differentiate online and off line scheduling algorithms. [2]
   f) Describe the functions and features of latest PalmOS device. [3]

PART–B *(4x14 = 56 Marks)*

2. a) List and explain the services provided by GSM system. And also explain the interaction between mobile stations and PSTN destinations. [7]
   b) Explain various architectural requirements for programming a mobile device. [7]

3. a) Describe the important features of CDMA systems and also the role of DSSS and FHSS for medium access controller. [7]
   b) Write about the extended service set in wireless LAN. How access points are connected? Explain. [7]

4. a) Explain various steps in DHCP protocol for configuring the IP address dynamically. [7]
   b) What are the requirements for the evolution of new mobile IP protocol from the existing IP protocol? Describe the working of mobile IP protocol. [7]

5. a) Explain the handover mechanism with indirect TCP sublayer between base transceiver and fixed node. [7]
   b) What is data caching? Explain caching invalidation mechanisms used in mobile networks. [7]

6. Explain the following data delivery mechanisms
   a) Push-based mechanism
   b) Pull-based mechanism
   c) Hybrid interleaved Push and Pull mechanism [14]

7. a) List and explain various challenges in mobile routing? Explain the working principle of DSDV routing protocol? Explain. [7]
   b) Describe in detail about J2ME profiles and configurations. [7]

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