

Code No: **R41054****R10****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: 75****Answer any FIVE Questions
All Questions carry equal marks***********

- 1 a) Explain briefly about the Architecture reference model of mobile computing. [8]
b) What is Signal Propagation? Explain in detail. [7]
- 2 a) In detail describe the functions and limitations of operating systems in handheld devices. [8]
b) List and explain Principles of Cellular frequency reuse. [7]
- 3 a) Explain about the concept of Localization and Calling in detail. Also discuss different types of handover in GSM. [8]
b) Explain about GPRS system in detail. [7]
- 4 a) How does the near/far effect influence TDMA systems? What happens in CDMA systems? What are countermeasures in TDMA systems, what about CDMA systems? [8]
b) Write in detail about Code Division Multiple Access (CDMA). [7]
- 5 a) Explain how tunneling works in general and especially for mobile IP using IP-in-IP, minimal, and generic routing encapsulation, respectively. Discuss the advantages and disadvantages of these three methods. [8]
b) Explain the basic requirements of Mobile IP. [7]
- 6 a) What is Service Discovery? What is the role of Mobile Agents in it? Explain in detail. [8]
b) Discuss in detail Domain Dependent specific rules for Data Synchronization. [7]
- 7 a) List and explain the Applications of Ad-Hoc networks. [8]
b) Why is routing in multi-hop Ad-Hoc networks is complicated? Discuss various challenges in it. [7]
- 8 a) With neat sketch explain the Architecture of WAP and its operational support. [8]
b) Discuss the protocol architecture of IEEE 802.11. [7]