

Code No: 137SN

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, December - 2019

MOBILE COMPUTING

(Computer Science and Engineering)

Time: 3 Hours

Max. Marks: 75

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b as sub questions.

PART – A**(25 Marks)**

1. Answer all questions.
 - a) Explain Mobile Computing. [2]
 - b) List and Explain GSM Services. [3]
 - c) Explain the role of MAC Layer in Wireless Network. [2]
 - d) Discuss about tunneling. [3]
 - e) Write about Congestion window. [2]
 - f) Explain QoS Issues. [3]
 - g) List various forms of Data Dissemination. [2]
 - h) What is Data Synchronization? How it is achieved? [3]
 - i) Write applications and Challenges of a MANET. [2]
 - j) List and explain properties of XML Document. [3]

PART – B**(50 Marks)**

2. What is Multiplexing? Explain various ways of achieving Multiplexing in Wireless Communications. [10]
- OR
3. What is GSM? Explain protocol Architecture of GSM. [10]
4. What is LAN? Which IEEE standard is suitable for Wireless LAN? Explain its Architecture. [10]
- OR
5. What is Routing? Discuss in detail about Route Optimization in mobile IP. [10]
6. Explain the improvements over Conventional TCP. [10]
- OR
7. How to hoard data on mobile devices? Explain Data cache and Web cache maintenance in mobile environments. [10]
8. Describe in detail Selective Tuning and Indexing Methods. [10]
- OR
9. Explain different software and protocols used for synchronization. [10]
10. Write the importance of Routing in MANETs. Explain DSDV and compare with On-demand Routing Protocols. [10]
- OR
11. Discuss in detail about Bluetooth Architecture and Frame Format. [10]