

Code No: 117FN

**R13**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**B. Tech IV Year I Semester Examinations, November/December - 2017**

**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, c as sub questions.

**PART - A**

**(25 Marks)**

- |      |  |     |
|------|--|-----|
| 1.a) | Define mobile computing.                                 | [2] |
| b)   | Discuss the limitations of handheld devices.             | [3] |
| c)   | What is meant by tunneling?                              | [2] |
| d)   | Write short notes on TCP/IP.                             | [3] |
| e)   | What are the advantages of I-TCP?                        | [2] |
| f)   | What are the quality issues related to mobile computing? | [3] |
| g)   | What is bandwidth?                                       | [2] |
| h)   | Explain temporal addressing.                             | [3] |
| i)   | What are the disadvantages of MANETs?                    | [2] |
| j)   | What are the features of windows CE operating system?    | [3] |

**PART-B**

**(50 Marks)**

- |           |   |       |
|-----------|---|-------|
| 2.a)      | Explain briefly about the architecture reference model of mobile computing. |       |
| b)        | Explain different mobile applications.                                      | [5+5] |
| <b>OR</b> |   |       |
| 3.a)      | Write the difference between circuit switching and packet switching.        |       |
| b)        | Explain about the time division multiplexing.                               | [5+5] |
| 4.        | Explain in detail about IEEE 802.11.  | [10]  |
| <b>OR</b> |   |       |
| 5.a)      | Distinguish between unicast, multicast and broadcast address.               |       |
| b)        | Write short notes on DHCP.  | [5+5] |
| <b>OR</b> |   |       |
| 6.a)      | Explain in detail Snooping TCP.   |       |
| b)        | Compare different TCP enhancements.   | [5+5] |
| <b>OR</b> |   |       |
| 7.a)      | What are the hoarding technique? Explain in detail.                         |       |
| b)        | Explain the process of data recovery.                                       | [5+5] |

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- 8.a) Explain the classification of data delivery mechanism.  
b) Distinguish between push and pull-based mechanism of data dissemination. [5+5]

**OR**

- 9.a) Write a short notes on selective tuning and indexing techniques.  
b) Compare the features of hotsync, activesync and intellisync. [5+5]

- 10.a) Explain about mobile ad hoc networks(MANETs).  
b) Distinguish between cellular networks and ad hoc wireless networks. [5+5]

**OR**

- 11.a) Explain J2ME.  
b) Write about DSR. [5+5]

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