

**R07**

Code No: 07A70510

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**B. Tech IV Year I Semester Examinations, November - 2013**

**Mobile Computing  
(Common to CSE, IT)**

**Time: 3 Hours**

**Max. Marks: 80**

**Answer any Five Questions  
All Questions Carry Equal Marks**

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- 1.a) With a neat diagram explain the architecture of Mobile computing?  
b) What multiplexing schemes are used in GSM and for what purposes? Briefly describe. [10+6]
- 2.a) What do you mean by hidden and exposed terminals? What happens in the case of such terminals if Aloha, slotted Aloha, reservation Aloha, or MACA is used?  
b) Compare the advantages and disadvantages of CDMA with TDMA/FDMA. [8+8]
3. List the entities of mobile IP and describe data transfer from mobile node to a fixed node and vice versa. Why and where encapsulation is needed? [16]
- 4.a) Explain how selective retransmission is a useful extension of TCP. Are there any disadvantages of this approach.  
b) Explain the characteristics and configuration parameters of Snooping TCP. [8+8]
5. Describe in detail about power aware and context aware computing. [16]
6. Explain how pull based and push based mechanisms used in data dissemination. [16]
- 7.a) What are the benefits of spread spectrum? Describe frequency-hopping spread spectrum.  
b) Briefly discuss about security in MANETs. [8+8]
8. Explain various protocols used in Bluetooth technology. [16]

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