

Code No: 09A70508

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**B. Tech IV Year I Semester Examinations, June/July - 2014****MOBILE COMPUTING****(Common to CSE, ECM)****Time: 3 Hours****Max. Marks: 75****Answer any Five Questions****All Questions Carry Equal Marks**

- 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.
- 2.a) Define the far-field region in free space model. Find the far-field distance for an antenna with maximum dimension of 1m and operating frequency of 600 MHz.
- b) 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?
- 3.a) Give the working of Mobile IP. Explain features of discovery, registration and tunneling features of Mobile IP.
- b) What are the several requirements that accompanied the development of the mobile IP as a standard to enable mobility in the internet?
- 4.a) "The M-TCP (mobile TCP) approach has the same goals as I-TCP and snooping TCP". Justify the statement.
- b) List and explain the transport layer protocols for mobile networks.
5. Explain in detail about Database Hoarding and Caching Techniques.
- 6.a) Explain data dissemination process and broadcasting process in information management of mobile computing devices.
- b) Write a brief notes on data synchronization.
- 7.a) List and explain the challenges in MANETS.
- b) With an example explain AODV algorithm in detail.
- 8.a) Explain the concept of security issue in Bluetooth.
- b) Discuss about the concepts in J2ME.

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