

GANPAT UNIVERSITY**B. TECH. SEMESTER: VII (COMPUTER ENGINEERING / INFORMATION TECHNOLOGY)****REGULAR EXAMINATION NOV-DEC 2016****2CE704 / 2IT704: MOBILE COMPUTING****Time: 3 Hours]****[Total Marks: 70**

- Instruction:** 1: Figures to right side indicated full marks.
 2: Each section should be written in a separate answer book.
 3: Assume suitable data if required.
 4: Be precise and to the point in your answer.

Section – I

- Que. – 1** [A] What is mobile computing? What are the major goals of mobile computing? Explain in detail. 06
 [B] Explain GPRS architecture in brief. 06

OR

- Que. – 1** [A] Explain GSM architecture. 06
 [B] Describe the medium access control mechanism. Explain the use of FDMA, TDMA for GSM. 06

- Que. – 2** [A] What is handover? Explain various types of handover with example 06
 [B] Explain the hidden terminal and exposed terminal problems. 05

OR

- Que. – 2** [A] How does a handover occur in GSM mobile system? Explain with examples. 05
 [B] Show that any two of the three codes 0011 0011, 0110 0110, and 0000 1111 are mutually orthogonal. Two orthogonal codes may or may not have autocorrelation. Why? Find the autocorrelation between 0110 0110 and 0000 1111. 06

- Que. – 3** [A] Describe the registration of a visiting mobile mode on handover. How is the binding between the home agent and the foreign agent created? 06

- [B] Explain the following: 04
 1) RFID 2) Mobile IP

- [C] What is difference between the care-of address and the co-located care-of address? 02

Section – II

- Que. – 4 [A] Describe MANET. Differentiate MANET and cellular networks. 06
Explain the applications of MANETs. 06
[B] Explain DSR with an example. 06

OR

- Que. – 4 [A] Describe wireless sensor network. Explain the similarities in MANET and wireless sensor networks. 06
[B] Which routing protocol support multicasting? How the protocol creates multicasting tree. 06
Que. – 5 [A] Which recovery model is good for mobile transaction? explain it in brief 05
[B] Explain DSDV routing protocol with an example. 06

OR

- Que. – 5 [A] Explain the concept of Digital wallet and smart card. 05
[B] Describe push-based data-delivery mechanism. What are the advantages and disadvantages of push-based data dissemination? 06
Que. – 6 [A] Differentiate proactive, reactive and hybrid protocols of MANET. Describe AODV in brief. 06
[B] Explain kangaroo transaction model and clustering transaction model in brief. 04
[C] What is m-commerce? Explain the concept of electronic cache. 02

END OF PAPER