

Total No. of Questions : 12]

SEAT No. :

P2999

[Total No. of Pages : 2

**B.E. (Mobile Computing) (Semester - II)**  
**INFORMATION TECHNOLOGY**  
**(2008 Pattern)**

*Time : 3 Hours]*

*[Max. Marks : 100*

*Instructions to the candidates:*

- 1) *Answers to the two sections should be written in separate answer books.*
- 2) *Answer three questions from each section.*
- 3) *Neat diagrams must be drawn wherever necessary.*
- 4) *Figures to the right side indicate full marks.*
- 5) *Use of Calculator is allowed.*
- 6) *Assume Suitable data if necessary.*

**SECTION - I**

- Q1)** a) Explain various generations of Mobile Communication system. [8]  
b) What is Signaling System 7? Explain in brief. [8]

OR

- Q2)** a) Draw and explain basic cellular system. [8]  
b) What is hand off mechanism? Explain in detail soft, softer and hard handoff. [8]

- Q3)** a) Explain with diagram A3, A5 and A8 algorithm in GSM. [8]  
b) Explain in detail with neat diagram GSM architecture. [8]

OR

- Q4)** a) Explain in detail GSM MAP Dialogue. [8]  
b) What is VLR? Explain in detail VLR overflow control. [8]

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- Q5) a)** Explain Mobile originated messaging and Mobile terminated messaging. [9]
- b) Draw and explain SMS architecture. [9]

OR

- Q6) a)** What is number portability? Describe three types of number portability. [9]
- b) Compare GSM with GPRS. Explain advantages, applications of GSM & GPRS. [9]

### **SECTION - II**

- Q7) a)** Explain in detail WAP protocol stack. [8]
- b) Explain in detail with neat diagram GPRS architecture. [8]

OR

- Q8) a)** What is SGSN and GGSN in GPRS? Explain in detail. [8]
- b) Explain in detail Walsh code. [8]

- Q9) a)** Write short note on IPv6. [8]
- b) Describe the goals and requirements of Mobile IP. [8]

OR

- Q10) a)** Explain in detail DHCP. [8]
- b) What is MANET? Explain Dynamic source routing in MANET. [8]

- Q11) a)** Explain in detail Wireless Broad Band (Wi MAX) technology. [8]
- b) Explain in detail with neat diagram Bluetooth protocol stack. [10]

OR

- Q12) a)** What is passive and active RfID? What are different frequencies used in RfID? Explain in brief. [8]
- b) Write a short note on: (any two) [10]
- i) W-LAN
  - ii) Bluetooth Technology
  - iii) Java Card

