

[5154] - 199

B.E. (Information Technology)

MOBILE COMPUTING

(2008 Course) (Semester - I) (Elective - II)

Time : 3 Hours]

[Max. Marks :100

Instructions to the candidates:

- 1) Answers 3 questions from section - I 3 questions from section - II.*
- 2) Answers to the two sections should be written in separate answer books.*
- 3) Neat diagrams must be drawn wherever necessary.*
- 4) Figures to the right indicate full marks.*
- 5) Assume suitable data, if necessary.*

SECTION-I

Q1) a) Write a detail with neat diagram different Handoff mechanisms in GSM.[8]

b) Explain in detail different Generations (1G, 2G, 3G) of Wireless Systems.
[10]

OR

Q2) a) Explain in detail concept of frequency reuse channels, Cells Splitting in cellular system. [8]

b) Explain the PCS Architecture with neat diagram. What are the elements in a SS#7 signaling Networks? Explain in detail architecture of SS#7 (Signaling System 7). [10]

Q3) a) Explain in detail with neat diagram how Security is maintained in GSM using Different Algorithms (A3, A5, A8 Algorithm). [8]

b) Explain in detail GSM MAP with neat diagram. [8]

OR

P.T.O.

- Q4)** a) Explain in detail Architecture of GSM with neat diagram. [8]
b) Explain various databases used in GSM architecture. [8]
- Q5)** a) Explain in detail GSM MAP Service Framework, MAP Protocol Machine, MAP Dialogue. [8]
b) Write short note on Operation, administration & maintenance for GSM. [8]

OR

- Q6)** a) Explain in detail SMS architecture with neat diagram. Also explain application of SMS technology. [8]
b) Compare GSM and GPRS on the basis of working, advantages, application. [8]

SECTION-II

- Q7)** a) Explain in detail GPRS Architecture with neat diagram. [8]
b) Explain in detail CDMA Technology. [8]

OR

- Q8)** a) Explain Wireless Application Protocol (WAP) model in detail. [8]
b) Short note on Billing and Charging mechanism in GPRS. [8]
- Q9)** a) Explain in detail Dynamic Host Configuration Protocol (DHCP). [8]
b) Explain in detail for Mobile IP: Goals, assumptions and requirements, entities and terminologies. [8]

OR

- Q10)** a) Write detailed notes on: [8]
i) MANET
ii) Dynamic Source Routing (DSR).
b) Explain in detail IP packet delivery, agent discovery. [8]

Q11)a) Write short notes on (Any Two): **[9]**

i) Wi - Max

ii) WLL

iii) W-LAN

b) What are the advantages & application to Spread Spectrum technology. Also explain in detail Spread Spectrum technology with neat diagram.**[9]**

OR

Q12)a) Explain in detail Bluetooth technology with protocol stack. **[10]**

b) Explain in detail RFID. **[8]**

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