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P610

[4064]-609

B.E. - IT

MOBILE COMPUTING

(2008 Course) (Elective - II) (414444 (B)) (Sem. - I)

Time : 3 Hours]

[Max. Marks : 100

Instructions to the candidates:

- 1) Answers to the two sections should be written in separate answer books.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Assume suitable data, if necessary.

SECTION - I

- Q1) a) Explain various generation of mobile communication system. [8]
- b) Explain in detail the concept of frequency reuse [8]

OR

- Q2) a) What is handoff mechanism? Explain any 4 handoff mechanisms. [8]
- b) What is cell splitting? Explain the two cell splitting methods with appropriate example. [8]

- Q3) Explain GSM in following respects: [18]
- i) Architectural diagram and its explanation
 - ii) Traffic and control channel details
 - iii) Security mechanism

OR

- Q4) Write short notes on : [18]
- i) HLR and VLR databases
 - ii) HLR failure restoration
 - iii) VLR overflow problem

P.T.O.

- Q5) a) Explain the strengths and value added services of SMS [8]
b) What is number portability? Explain the three kinds of number portability. [8]

OR

- Q6) a) Explain the service node approach and hot billing approach used in mobile prepaid service. [8]
b) Explain the procedure of International call set-up. [8]

SECTION - II

- Q7) a) Explain how the GSM system can be upgraded to GPRS [8]
b) Explain WAP protocol stack. [8]

OR

- Q8) a) Explain GPRS transmission plane characteristics in detail. [8]
b) Compare W-CDMA and cdma-2000 in detail. [8]

- Q9) a) Explain mobile IP in detail. [8]
b) Explain IPv6 in detail. [8]

OR

- Q10) a) Write a detailed note on MANET. [8]
b) Explain three important processes used in Mobile IP. [8]

- Q11) Write short notes on : [18]
i) Bluetooth protocol stack
ii) Spread spectrum technology
iii) RFiD

OR

- Q12) Write short notes on : [18]
i) WLAN
ii) Java card
iii) Wi-Max

