

Total No. of Questions : 6]

SEAT No. :

P110

[Total No. of Pages : 2

APR - 18/BE/Insem. - 78

B.E. (Information Technology)

MOBILE COMPUTING

(Semester - II) (Elective - III) (2012 Course) (414463A)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

- 1) Answer Q1 or Q2, Q3 or Q4, Q5 or Q6.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right side indicate full marks.
- 4) Assume suitable data, if necessary.

- Q1)** a) Explain in detail three Strategies for Handoff Detection. [5]
b) Describe the distinction between the following service areas : GSM, PLMN, MSC, LA and Cells. [5]

OR

- Q2)** a) Describe the basic cellular system and the concept of frequency reuse. [5]
b) Define handoff. Brief inter-Base Station handoff process with example. [5]

- Q3)** a) What is the major difference between the main functionality of mobile-originated messaging and GSM call-origination procedures? [4]
b) What is the role of AuC? How is AuC work in a GSM network? [6]

OR

- Q4)** a) Give some intuitive reasoning why the capacity of GSM should be more than their analog predecessor does. State the main functions of : [6]
i) BTS and BSC,
ii) MSC/GMSC,
iii) OMC and
iv) NMC.
b) What are the HLR and VLR? Describe HLR and VLR in Call Routing Roaming. [4]

P.T.O.

- Q5)** a) Explain SM-TL and SM-RL of SMS protocol stack in detail. [4]
- b) Explain each of the following in brief : [6]
- i) Operator Independent Push.
 - ii) Operator Independent Pull.
 - iii) SMS Gateway.

OR

- Q6)** a) What are various strengths of SMS? Explain all of them. Also state what are the applications areas where these strengths can be used? [5]
- b) Explain the difference between SMMT and SMMO. (SMS Architecture). [5]

