



Name : .....

Roll No. : .....

Invigilator's Signature : .....

**CS/M.Tech(CSE-SE)/SEM-3/PGCSE-302E/PGSE-302E/2012-13**

**2012**

**MOBILE COMPUTING**

*Time Allotted : 3 Hours*

*Full Marks : 70*

*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own words  
as far as practicable.*

Answer any five questions.

5 × 14 = 70

1.
  - a) What is femtocell ? How it works ?
  - b) What is included in a Femtocell Access point ?
  - c) Explain the access control of FAP.
  - d) Explain the functional Architecture of HNB.

3 + 3 + 2 + 6
2.
  - a) What is Iuh reference model for a Femto Network ?
  - b) Why Femtocell based mobile network is called self-organized network ?
  - c) What are the interference management process used in Femto-network ?
  - d) There are 40 persons in a room, how many Femtocells are required to provide complete Femto-coverage ?

6 + 2 + 5 + 1



3. a) Explain the convergence of different visions used in "Internal of Things".
- b) What are the application domains of "Internal of things" in Mobile Computing.
- c) What is NFC ? How NFC is used for Mobile Computing.

5 + 5 + 4

4. a) Explain the significance of call admission control in Mobile Cellular networks.
- b) Compare Radio Frequency, Bandwidth, Access technique, Switching Basis, Cellular Coverage & Service Types of 2G, 3G & 4G Mobile networks.
- c) What is call dropping & call blocking probability calculate call completion probability.
- d) What are the Channel Assignment Schemes used in Mobile Network ?

1 + 3 + 5 + 5

5. a) What are the call queueing schemes used in Mobile Network ?
- b) How CAC improve QoS of a Mobile Network ?
- c) What are the performance criteria of CAC ?

5 + 4 + 5



6. a) Calculate the cost of call breathing of a seven call cluster mobile network.
- b) Draw the block diagram of a GPRS network. 6 + 8
7. a) Calculate SAR of a Mobile Phone ?
- b) Comment on radiation hazards of a Mobile Phone.
- c) What is Mobile OS ? Explain different types of Mobile OS ? 5 + 5 + 4

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