MCIT - 205

M.E./M.Tech., II Semester

Examination, June 2014

Mobile Computing

Time : Three Hours

Maximum Marks : 70

Note : Attempt all questions. All questions carry equal marks. Assume any missing data.

1. a) Explain basic cellular system, criteria and its performance.

   b) Compare first, second, third and fourth generation mobile cellular systems.

   Or

   a) Describe the geometry of hexagonal shaped cells.

   b) Define cell splitting. Cell sectoring and frequency reuse.

2. a) Describe point to point model for mobile communication.

   b) Explain propagation over water or flat open areas in mobile communication.

   Or

   a) Obtain path loss model from a point to point prediction model.

   b) Define:

      i) Cell site antenna height.

      ii) Mobile to mobile propagation.

3. Explain Co-channel interference and how it is reduced.

   Or

   a) Design a directional antenna system for mobile communication.

   b) How Co-channel interference is reduced by means of a notch in the tilted antenna pattern.

4. Describe frequency management and channel assignment in detail.

   Or

   Explain in brief how to operate north additional spectrum and perception of call blocking from the subscribers.

5. Write short notes on any two:

   i) Types of Handoffs

   ii) GSM

   iii) Fading characteristics

   iv) Mobility management

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