



Name :

Roll No. :

Invigilator's Signature :

**CS/M.TECH(ECE)/SEM-2/MEC-2002/2010
2010**

WIRELESS AND MOBILE COMMUNICATION

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) Compare 1G, 2G and 3G based on important features and parameters. Which country first implemented 3G ?
5 + 1
- b) What is PCN ? What are the distinct features of 4G ?
4 + 4
2. a) Explain fixed channel assignment and dynamic channel assignment strategies. 8
- b) Define different categories of hand-off strategies. 6
3. a) Elaborate Co-channel interference and adjacent channel interference. 10
- b) What is meant by prioritizing hand-off ? 4



4. a) Explain the following in GSM architecture : 8
- i) MS
 - ii) BTS and BSC
 - iii) MSC
 - iv) HLR and VLR.
- b) How can the coverage area be improved along with capacity in cellular system ? 6
5. a) What do you understand by Diversity Technique ? 4
- b) Derive the expression of selection diversity technique. 10
6. a) What do you understand by soft hand-off and hard hand-off ? Explain. 6
- b) What do you understand by flat fading as well as frequency selective fading ? 8
7. a) Explain IP packet delivery and optimization in Mobile IP. 6
- b) Write short notes on any *two* of the following : 4 + 4
- i) Snooping TCP
 - ii) Tunneling and Encapsulation
 - iii) Reverse Tunneling
 - iv) IPv6
 - v) Destination sequence distance algorithm.
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