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06TE73

Seventh Semester B.E. Degree Examination, May/June 2010
Wireless Communication

Time: 3 hrs. Max. Marks:100

Note: ***Answer any FIVE full questions, selecting at least TWO questions from each part.***

PART – A

1 a. Determine the frequency reuse distance for a cell radius of 2 kilometers and a cluster size of 4. **(02 Marks)**

b. Explain the need of supervisory audio tones and signaling tone for the AMPS system. **(05 Marks)**

c. Mention the differences between 1 G and 2 G cellular systems. **(05 Marks)**

d. List out the characteristics of 3 G cellular system. **(08 Marks)**

2 a. With a neat block diagram, explain the functions performed by various blocks of a subscriber device. **(10 Marks)**

b. Write the format and purpose of various cellular components identifications. **(10 Marks)**

3 a. With neat diagrams, explain various bursts used in GSM. **(10 Marks)**

b. Describe the process of power control used by cellular systems and mention its advantages. **(10 Marks)**

4 a. With a neat sketch, explain GSM signaling model. **(10 Marks)**

b. Explain the basic functions performed by location management. **(10 Marks)**

PART – B

5 a. Explain the Inter – BSC handover in GSM. **(10 Marks)**

b. With a neat block diagram, explain the generation of CDMA reverse access channel. **(10 Marks)**

6 a. Explain the radio-resource connection establishment process during call setup in GSM. **(10 Marks)**

b. Describe the soft handoffs process in CDMA. **(10 Marks)**

7 a. Illustrate the channel encoding and interleaving in GSM for voice traffic. **(12 Marks)**

b. Describe Bluetooth wireless PAN Adhoc network topologies. **(08 Marks)**

8 a. Describe the differences between wireless LAN and wireless PAN technologies. **(12 Marks)**

b. Explain with a block diagram, the function of Rake receiver. **(08 Marks)**

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