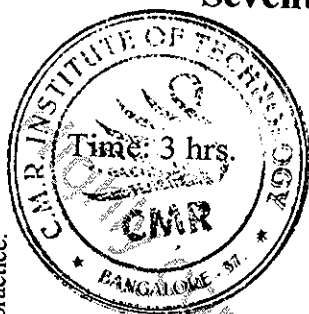


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Seventh Semester B.E. Degree Examination, June/July 2013

Wireless Communication



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

Max. Marks: 100

PART - A

- 1 a. With a neat flow diagram, explain handoff operation in AMPS system. (10 Marks)
- b. Define intraoffice and interoffice call in a PSTN system. (04 Marks)
- c. Explain the purpose of the AMPS supervisory audio tones. (06 Marks)
- 2 a. Explain the following:
 - i) Base Station Controller (BSC)
 - ii) Inter Working Unit (IWU)
 - iii) Gateway Mobile Switching Centre (GMSC)
 - iv) International Mobile Equipment Identity Number (IMEI)
 (10 Marks)
- b. With a neat diagram, explain mobile originated call operation in cellular network system. (10 Marks)
- 3 a. Explain the process of power control in cellular system. (08 Marks)
- b. Explain the following capacity expansion techniques:
 - i) Cell sectoring
 - ii) Overlaid cells
 (10 Marks)
- c. For a mobile system cluster size of 7, determine the frequency reuse distance if the cell radius is five kilometers. Repeat the calculations for a cluster size of 4. (02 Marks)
- 4 a. With a neat block diagram, explain the speech processing in a GSM system. (10 Marks)
- b. Discuss the frame format of a GSM system and draw the different time slot bursts used in GSM. (10 Marks)

PART - B

- 5 a. List different call setup operations. With flow diagram, explain any two operations. (10 Marks)
- b. With a neat diagram explain GSM inter BSC handover operation. (10 Marks)
- 6 a. With a neat diagram explain cdma 2000 wireless system. (10 Marks)
- b. With a neat diagram, explain the generation of the CDMA synchronization and paging channel. (10 Marks)
- 7 a. Explain the following:
 - i) Block inter leaving
 - ii) Frequency hopping spread spectrum
 (10 Marks)
- b. With a neat diagram, explain QPSK modulation. (10 Marks)
- 8 a. Explain the details about IEEE 802.11 X standards. (10 Marks)
- b. Explain the details about IEEE 802.15 X standards. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.