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10TE73

Seventh Semester B.E. Degree Examination, Dec.2017/Jan.2018
Wireless Communication

Time: 3 hrs.

Max. Marks:100

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

PART - A

- 1 a. With neat diagram, explain OSI model. Also relate it to communication network and explain. (10 Marks)
- b. Describe the characteristics of 1G, 2G, 3G and 4G cellular systems. (10 Marks)
- 2 a. Explain mobile terminated call operation. (10 Marks)
- b. With neat block diagram, explain the common wireless cellular network components. (10 Marks)
- 3 a. Explain how cell splitting and cell sectoring techniques are used to expand the capacity of a cellular system. (10 Marks)
- b. Explain concept of mobility management. Also explain the functions of location management with a figure. (10 Marks)
- 4 a. With a neat block diagram, explain various protocols used in GSM signaling model. (10 Marks)
- b. Explain in detail GSM channel concept. (10 Marks)

PART - B

- 5 a. Explain with a diagram, Inter BSC handover operation. (10 Marks)
- b. List out the ten operations in call setup in GSM system. (05 Marks)
- c. Explain IMEI check. (05 Marks)
- 6 a. Describe soft hand off in CDMA systems. (05 Marks)
- b. Explain the functions of three layers in network management system. (10 Marks)
- c. Explain spectrum spreading in CDMA. (05 Marks)
- 7 a. Describe the various error correction and detection codes used in wireless systems. (10 Marks)
- b. Explain frequency hopping techniques. (10 Marks)
- 8 a. Explain typical MAN deployment scenario. (05 Marks)
- b. With suitable diagram, explain blue tooth system components / Blue tooth protocol stack. (08 Marks)
- c. Explain the design issues of IEEE 802.11 standard. (07 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.