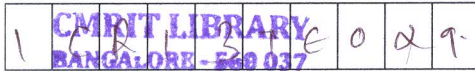


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10TE73

Seventh Semester B.E. Degree Examination, June/July 2018
Wireless Communication

Time: 3 hrs.

Max. Marks:100

Note: Answer any FIVE full questions, selecting atleast TWO questions from each part.

PART - A

- 1 a. Explain the signaling system # 7 components, with a neat diagram. (08 Marks)
b. With a timeline diagram, explain AMPS mobile initialization. (08 Marks)
c. AMPS has channel spacing of 30KHz. Transmitter frequency for MS is 825.030 MHz and BS is 870.030 MHz. Determine the downlink and uplink frequencies of AMPS channel 326 on the A side channels. What type of channel is it? (04 Marks)
- 2 a. With a neat block diagram, explain the common cellular system components. (10 Marks)
b. Explain the hardware and software view of a cellular network, with suitable diagrams. (07 Marks)
c. Explain : i) IMEI ii) IMSI. (03 Marks)
- 3 a. Explain Cell sectoring and Cell splitting with their advantages and disadvantages. (08 Marks)
b. Explain the various methods to achieve efficient channel allocation. (06 Marks)
c. Describe the power control schemes used in wireless networks. (06 Marks)
- 4 a. Explain the various logical channels in GSM. (10 Marks)
b. With a neat diagram, explain the GSM network architecture. (10 Marks)

PART - B

- 5 a. Explain the inter BSC handover in GSM, with suitable diagram. (10 Marks)
b. Discuss the call initialization operation in GSM with timeline diagram. (10 Marks)
- 6 a. Explain the basic spreading procedure on forward channels in CDMA, with a neat diagram. (10 Marks)
b. Explain the following with respect to CDMA :
i) Soft handoff ii) Softer handoff iii) Soft - Softer handoff. (06 Marks)
c. Explain the uses of functional planes of CDMA 2000 MSC - BSC interface. (04 Marks)
- 7 a. With a block diagram, explain the working of RAKE receiver used for CDMA. (10 Marks)
b. Explain the following spread spectrum modulation techniques in detail :
i) Frequency hopping ii) Direct sequence. (10 Marks)
- 8 a. With a neat diagram, explain the Bluetooth protocol stack. (10 Marks)
b. Compare and contrast WLAN and WPAN. (06 Marks)
c. Write a note on IEEE 802.16 WMAN (WiMax). (04 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.