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10MCA554

Fifth Semester MCA Degree Examination, Dec. 2013/Jan. 2014
Wireless Networks and Mobile Computing

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions.

- 1 a. Explain the three – tier architecture for mobile computing, with a neat diagram. (10 Marks)
b. With a neat diagram, describe the ICAP. (05 Marks)
c. Discuss the context aware system with respect to mobile computing. (05 Marks)
- 2 a. Describe the speech processing in GSM with a neat diagram. (10 Marks)
b. Explain GSM addresses and identifiers. (10 Marks)
- 3 a. What are the strength of SMS? Give reasons. (06 Marks)
b. Explain the limitations of GPRS. (04 Marks)
c. List GPRS specific applications. Describe any four of them. (10 Marks)
- 4 a. Explain IS – 95 forward and reverse link channel structures, with a neat diagram. (10 Marks)
b. What are the different spreading techniques? (04 Marks)
c. Explain the following : (06 Marks)
i) Soft handoff
ii) Hard handoff
iii) Softer handoff.
- 5 a. Discuss the tunneling operations in mobile IP. (05 Marks)
b. Explain the components of PDA with neat diagram. (05 Marks)
c. Explain the design constrains in applications for handheld devices. (10 Marks)
- 6 a. Describe the smart client architecture, with a neat diagram. (10 Marks)
b. Explain the various mobile operating systems. (10 Marks)
- 7 a. Explain the steps for processing a wireless request. (10 Marks)
b. Explain briefly the following markup languages in wireless computing : (10 Marks)
i) HDML
ii) WML
iii) HTML
iv) Voice XML
v) cHTML.
- 8 a. Security the security considerations in MIDP. (08 Marks)
b. Explain the lifecycle of MIDlet. (12 Marks)

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.

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