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10CS/IS831

Eighth Semester B.E. Degree Examination, June/July 2016
Wireless Networks and Mobile Computing

Time: 3 hrs.

Max. Marks: 100

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

PART – A

- 1 a. Classify networks used for mobile computing and explain them in brief. (05 Marks)
 b. Draw detailed three-tier architecture of mobile computing and list the services provided by ICAP servers. (10 Marks)
 c. Explain the role of context aware systems in mobile computing environment. (05 Marks)
- 2 a. With the help of flow diagram, explain the sequence of operation involved in call routing in GSM. (08 Marks)
 b. Describe call routing in GSM with an example. (06 Marks)
 c. Explain the characteristics of SMS. (06 Marks)
- 3 a. Explain the operations of GPRS network. (10 Marks)
 b. Explain the applications which need higher data bandwidth suitable for GPRS. (10 Marks)
- 4 Describe each of the following in brief :
 a. IS – 95 channel structure (10 Marks)
 b. IS – 95 call processing (05 Marks)
 c. IS – 95 channel capacity. (05 Marks)

PART – B

- 5 a. Compare the capabilities of mobile phones, PDA and communicator. (06 Marks)
 b. Describe the structure of a mobile handset giving insight into its primary hardware components. (08 Marks)
 c. Write a note on the design constraints in applications for handheld devices. (06 Marks)
- 6 a. Explain the smart client architecture in detail with the neat diagram. (10 Marks)
 b. What are the issues to be taken care during the design phase of mobile applications? (10 Marks)
- 7 a. Explain the steps involved in processing a wireless request. (10 Marks)
 b. Write the HTML code for inventory sample and explain list of choices when presented in an HTML browser. (10 Marks)
- 8 a. What is CLDC? How do you program for CLDC? (10 Marks)
 b. What are the different security considerations in J2ME? Explain the mechanisms through which they are handled. (10 Marks)

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Important Note : 1. On completing your answers, carefully 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.