USN [| | | | | | | |]   10MCA554

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 :
      i)   Soft handoff
      ii) Hard handoff
      iii) Softer handoff.   (06 Marks)

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 :
      i)   HDML
      ii) WML
      iii) HTML
      iv) Voice XML
      v)   cHTML.   (10 Marks)

8 a. Security the security considerations in MIDP.   (08 Marks)
   b. Explain the lifecycle of MIDlet.   (12 Marks)

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