

P1124

[3864] - 420

B.E. - (IT)

MOBILE COMPUTING

(414445) (Elective - I) (2003 Course)

Time : 3 Hours]

[Max. Marks : 100

Instructions to the candidates:

- 1) Answers to the two sections should be written in separate books.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Assume suitable data, if necessary.

SECTION - I

- Q1) a) Explain various standards used in mobile computing environment. [8]
b) Explain various steps used during the design of voice application development. [8]

OR

- Q2) a) Explain the significance of Core, Edge and Access Network. What are their functions? [8]
b) Explain various types of mobilities used in mobile computing environment. [8]

- Q3) a) Describe the Bluetooth protocol stack in detail. [6]
b) Explain how mobile IP works with appropriate diagram. [6]
c) Explain the value added services of SMS. [6]

OR

- Q4) a) Draw an architectural diagram of GSM and explain various elements used in it. [6]
b) Explain the security mechanism used in GSM. [6]
c) Explain Java Card in detail with appropriate diagram. [6]

- Q5) a) Explain the WAP protocol stack in detail. [8]
b) What is the difference between GSM and GPRS? What are the network elements in GPRS that are different from GSM. [8]

OR

- Q6) a) Explain the transmission plane and GPRS protocol stack. [8]
b) Explain how Direct Sequence Spread Spectrum technology used in CDMA. [8]

SECTION - II

- Q7) a) What are the advantages and disadvantages of WLAN? Under what situation is WLAN desirable over LAN? [8]
b) What are the design constraints for the application of hand held devices? [8]

OR

- Q8) a) What is number portability? Explain the three phases used in number portability. [8]
b) Explain SS#7 protocol stack in detail. [8]

- Q9) a) Describe the Palm OS architecture. [8]
b) Explain the functions of different layers in Symbian OS architecture. [8]

OR

- Q10) a) What is CDC and CDLC in J2ME? [8]
b) Explain the three prong approach used in Java. [8]

- Q11) a) Explain the different flavors of Windows CE. [6]
b) Compare SIP an H.323. [6]
c) Explain various attacks on static assets. [6]

OR

- Q12) a) What are the different components of Information Security. [6]
b) Explain any two real time protocols. [6]
c) Explain various attacks on dynamic assets. [6]

