

Total No. of Questions : 10]

P3681

SEAT No. :

[Total No. of Pages : 2

[5561]-315

B.E. (Information Technology)

MOBILE COMPUTING

(2012 Course) (414463 A) (Semester-II) (Elective-III)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) *Answer Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8, Q9 or Q10.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right side indicate full marks.*
- 4) *Assume suitable data, if necessary.*

Q1) a) Discuss forward and backward handoff mechanisms. **[4]**

b) List and explain strategies of mobile handoff detection. **[5]**

OR

Q2) a) Explain mobility management doing. Define Handoff and Roaming. **[4]**

b) Explain Personal Communications Systems. Draw and explain basic PCS architecture. **[5]**

Q3) a) Draw neatly GSM SMS architecture and explain role of SM-SC. **[5]**

b) What are the HLR and VLR? Describe HLR and VLR in Call Routing Roaming? **[5]**

OR

Q4) a) Write a Short Note on: VLR Database Overflow. **[4]**

b) Explain different cases of handovers. Draw the signal and response diagram for all the cases and show their differences clearly. **[6]**

Q5) a) List and explain benefits of GPRS. What is the role of SGSN and GGSN in GPRS network? **[9]**

b) Draw and explain WAP architecture. **[8]**

OR

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Q6) a) Discuss design guidelines for WAP. What are disadvantages of implementing TCP/IP directly over mobile network? [9]

b) How much of original GSM network does GPRS need? Which elements of the network perform the data transfer? Explain. [8]

Q7) a) Specify advantages, disadvantages of application to application messaging architecture. [9]

b) Draw and explain implementation and design phase of mobile application development. [8]

OR

Q8) a) What is major difference between wireless internet, smart client, and messaging mobile application architectures? [9]

b) What do we mean smart client? What is the defining factor of smart client applications versus thin client applications? On which devices can we deploy smart client applications? [8]

Q9) a) Discuss core and additional features of Android OS [9]

b) Discuss role of Application framework and Dalvik Virtual Machine in Android OS architecture. [8]

OR

Q10) a) List and explain application components of android. [9]

b) Draw flowchart for application life cycle of android. [8]

