Total No. of Questions : 12]

SEAT No. :

P3415

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[4959]-189

B.E.(Information Technology)

MOBILE COMPUTING

(2008 Course) (Semester-I)(Elective-II)

Time :3Hours] *[Max. Marks :100*

Instructions to the candidates:

1) ***Answer three questions from section I and three questions from section-II.***
2) ***Answers to the two sections should be written in separate answer books.***
3) ***Neat diagrams must be drawn wherever necessary.***
4) ***Figures to the right indicate full marks.***
5) ***Assume suitable data, if necessary.***

SECTION-I

Q1) a) Explain any one of the following: **[8]**

i) Cordless Telephony ii) DECT

iii) PHS iv) PACS

b) Explain in detail the concept of frequency reuse and cells splitting. **[10]**

OR

Q2) a) What is hand off mechanism? Describe the three Handoff strategies MCHO, NCHO, MAHO. **[10]**

b) How is the registration and call delivery done in roaming? **[8]**

Q3) a) What are the major parts of an MS in GSM? Describe them. Draw and explain with diagram a GSM architecture. **[8]**

b) Compare the authentication procedures in IS- 41 and GSM. **[8]**

OR

P.T.O.

Q4) a) Explain various databases used in GSM architecture. **[8]**

b) Write short notes on HLR and VLR. **[8]**

Q5) a) Compare between fixed prepaid service and mobile prepaid service? **[8]**

b) Discuss any one solution for reducing the International call delivery cost. **[8]**

OR

Q6) a) Describe the solutions for number portability. **[8]**

b) Draw and explain International call setup procedure. **[8]**

SECTION-II

Q7) a) Compare GPRS with CDPD. What are the fundamental differences between the two services and what are the design guidelines shared by them? **[8]**

b) Describe distillation. Which layer of WAP implement this mechanism. **[8]**

OR

Q8) a) Explain in brief caching, pushing and prefetching. What is the impact of these mechanisms on billing? **[8]**

b) Describe in brief GPRS network modes. **[8]**

Q9) a) Explain important processes used in mobile IP. **[8]**

b) What advantages the IPv6 offer for mobility? Discuss. **[8]**

OR

Q10) a) Describe how the data transfers from mobile node to a defined node and vice versa. **[8]**

b) Explain the following routing protocol in MANET : destination sequence distance vector, dynamic source routing. **[8]**

Q11) a) Define Bluetooth. Explain Bluetooth protocol stack. **[10]**

b) Explain with diagram Spread Spectrum Technology. **[8]**

OR

Q12) Write short notes on any three:(6 marks each) **[18]**

a) UMTS.

b) Wi-Max

c) RFID

d) Java Card