Total No. of Questions : 12]

SEAT No. :

P3415

[Total No. of Pages : 3

[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]**

<div align="center">OR</div>

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

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

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SECTION-II

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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]**

<div align="center">OR</div>

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]**

<div align="center">OR</div>

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]**

<div align="center">OR</div>

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

    a) UMTS.

    b) Wi-Max

    c) RFID

    d) Java Card

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