Set No. 1

II B.Tech I Semester Regular Examinations, November 2007
DATA BASE MANAGEMENT SYSTEMS
(Common to Computer Science & Engineering, Information Technology and Computer Science & Systems Engineering)

Time: 3 hours   Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks
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1. (a) Explain the Transaction management in a database.

   (b) Discuss the Query Processor of Database system structure. [8+8]

2. (a) What is an unsafe query? Give an example and explain why it is important to disallow such queries?

   (b) What is relational completeness? If a query language is relationally complete, can you write any desired query in that language. [8+8]

3. What is dependency Preservation property for decomposition? Explain why is it important. [16]

4. Explain the 4NF. Why is it useful? Explain with example [16]

5. (a) Define the concept of a transaction. [6]

   (b) Write a short notes on

      i. Serialazability
      ii. Recoverability [10]

6. (a) With an example explain serial & non serial serialazability schedule. [8]

   (b) Describe each of the following locking protocols

      i. Two phase lock
      ii. Conservative two phase lock [8]

7. Give an example of a database application in which the reserved-space method of representing variable-length records is preferable to the pointer method. Explain your answer. [16]

8. Explain the distinction between closed and open hashing. Discuss the relative merits of each technique in database applications. [16]

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