II B.TECH II SEM–REGULAR/SUPPLEMENTARY EXAMINATIONS MAY - 2010
DATABASE MANAGEMENT SYSTEMS
Common to Information Technology, Computer Science And Engineering

Time: 3 hours   Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks
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1. (a) Construct an ER diagram for a bank Database. Bank maintains data about customers, their loans, their deposits, lockers. Determine the entities and relationships.

   (b) What is the composite attribute? How to model it in the ER diagram? Explain with an example.   [8+8]

2. (a) Explain Log-Record Buffering?

   (b) Explain Database Buffering?   [8+8]

3. (a) What is grouping? Is there a counterpart in Relational Algebra? Explain this feature and discuss the interaction of the HAVING and WHERE clauses. Mention any restrictions that must be satisfied by the fields that appears in the GROUP BY Clause.

   (b) What are the differences between Integrity Constraints and Triggers? [10+6]

4. (a) Explain about the following
       i. Key constraints
       ii. Specifying foreign key constraints in SQL with an example.

   (b) What is a view? Explain about views in detail.   [8+8]

5. (a) Explain Third NF with examples?

   (b) Explain BCNF with examples?   [8+8]

6. (a) Explain Heap file with un clustered Tree index?

   (b) Explain Heap file with un clustered Hash index?   [8+8]

7. (a) Explain validation protocol with example?

   (b) Explain granularity and multiple granularity?   [8+8]

8. (a) Describe storage manager component of database system structure.

   (b) Explain levels of abstraction in DBMS?   [8+8]

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