

II B.Tech I Semester(R07) Supplementary Examinations, May/June 2010
DATA BASE MANAGEMENT SYSTEMS
(Computer Science & Systems Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Make a comparison between Database system and File system.
(b) Explain query processor in DBMS structure. [8+8]
2. Explain participating constraint, covering constraint and overlap constraint in ER model. Discuss suitable example for each constraint.
 - (a) Construct an E - R diagram for a car insurance company with a set of customers, each of whom owns a number of cars. Each car has a number of recorded accidents associate with it. Determine entities and relationships.
 - (b) What is an Entity type? What is an entity set? Explain the difference between entity, entity type and entity set. [8+8]
3. (a) Relational calculus is said to be a declarative language, in contrast to algebra, which is a procedural language. Explain the distinction.
(b) Describe the set operations of Relational Algebra, including Union, intersection, set - difference and cross product. For each, what can you say about the cardinality of this input and output tables. [8+8]
4. (a) What are the parts of a basic SQL query. Explain in detail. What is the use of DISTINCT key word.
(b) 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 appear in the GROUP BY clause. [6+10]
5. (a) Explain alternatives in decomposing in BCNF?
(b) Explain the relationship between BCNF and Dependency preservation? [8+8]
6. (a) What is Thomas write rule?
(b) Explain the time-stamp ordering protocol? [8+8]
7. (a) Explain Log-Record Buffering?
(b) Explain Database Buffering? [8+8]
8. (a) Explain dynamic Data structures?
(b) Explain format of a node? [8+8]
