May 2004

Bachelor of Computer Application (BCA) Examination

IV Semester

Data Base Management System

Time 3 Hours] [Max. Marks 50

Note: ***Attempt all questions, choosing any two parts from each question. Each question carries equal marks.***

1 (a) Define three level Architecture and Mapping between different views.
(b) Why is data modeling required ? List various data models, elaborating any one
(C) What are responsibilities of Database Administrator ? Explain.

2 (a) What are different symbols used in E-R diagram ? How a E-R diagram can be converted to a table?
(b) What do you mean by mapping constraints? Explain one to one, one to many, many to one and many to many with help of examples.
(e) Design a E-R database schema for a banking system taking three entities customer, loan and account.

3 (a) What is the basic structure of an SQL ? Explain nested subqueries with examples
(c) Write three different SQL statement and its equivalent QBE statement
(d) Write SQL for following statement refering the table given below:
Student (roll-no., name, city, fees, age,class)
Team (id, name, game)
(i) List all students who live in 'Indore'.
(ii) Find how much fees is collected.
(iii) List all BCA students whose fees is more than 5000
(iv) Find the older student according to age
(v) Find all student who are not player?

4 (a) What are different anomalies which must be removed to get various normal forms ? Explain.
(b) Explain third normal form with example. Also explain insertion, deletion anomalies in your example.
(c) Explain any two with examples : (i) Domain constraints, (ii) Entity Integrity Constraints, (iii) Referential Integrity

5. (a) Write short notes on oracle server tools and oracle client tools.
(b) Explain various Potential threats in database environment.
(c) Define and explain. Following RDBMS Terminology:
(i) Relation, (ii) Tuple, (iii) Degree, (iv) Domain, (v) Cardinality

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