Time: 3 hours   **Marks: 80**

N.B.:   **1. Question No.1 is compulsory.**
          2. Answer any three out of remaining questions.
          3. Assume suitable data if necessary.
          4. Figures to the right indicate full marks.

Q1. Attempt All questions   20M
(a) Explain generalization and Specialization with example.
(b) Discuss primary key and foreign key with example.
(c)Write a short note on conflict serializability
(d) Explain DCL commands in detail.

Q2.
(a)Draw and explain Database System architecture   10M
(b) Explain different type of attributes with example in Entity Relational Model   10M

Q3
(a) Draw EER diagram for railway reservation management System   10M
(b) Draw and explain notations of ER/EER diagram   10M

Q4.
(a) Explain the DDL and DML Commands with suitable example.   10M
(b) Discuss procedure, functions and cursors with example.

Q5
(a) Define normalization. Explain 1NF in detail with example   10M
(b) Explain ACID properties in details with example.

Q6. write short note on   20M
(a) Constraints in SQL
(b) Need of normalization in Database Design
(c) Group by clause
(d) JDBC Connection

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