BCA/M-17
RELATIONAL DATA BASE MANAGEMENT SYSTEM
Paper: BCA-244

Time: Three Hours   Maximum Marks: 80

Note: Attempt five questions including No. 1 which is compulsory. All questions carry equal marks.

Compulsory Question

1. (a) Differentiate between DBMS and RDBMS.
    (b) Write any five rules of Dr. Codd for Relational model.
    (c) What are anomalies? Discuss update anomaly.
    (d) What do you mean by functional dependencies?
    (e) What do you mean by SQL operator?
    (f) What do you mean by Views? How is it created?
    (g) Write PL/SQL Block.
    (h) Differentiate between SQL and PL/SQL.

Unit-I

2. What do you mean by relational algebra? Explain select, project, union and intersection operation with the help of illustration.

3. What do you mean by relational calculus? How does it differ from relational algebra? Discuss tuple relational calculus and domain relational calculus.

Unit-II

4. What do you mean by Normalization? State the similarities and dis-similarities among BCNF and 3NF. Why is BCNF considered to be stronger from 3NF? Provide an example to illustrate.

5. Write notes on the following :
    (a) Full and partial functional dependencies.
    (b) Multi-valued dependencies.

Unit-III

6. (a) Define SQL. Explain (check, like, default, between and in) constraint in SQL with illustration.

(c) What do you mean by simple and nested query? Explain with examples.

6. Write the meaning, syntax and example of the following SQL statements :
   (a) Alter statement with add, drop and modify keywords
   (b) Insert
   (c) Drop
   (d) Create.

Unit-IV

8. (a) What is the use of exception block in PL/SQL? How do we execute a PL/SQL Block?

   (b) How can you apply If........Else control statement in PL/SQL? Exemplify.

9. What do you mean by Triggers in PL/SQL? Why do we create Triggers? Write the syntax for creating a trigger with BEFORE and AFTER keywords.