Bachelor of Science (B.Sc.I.T.) Semester-II (C.B.S.) Examination

DATABASE MANAGEMENT SYSTEM

Paper-V

Time : Three Hours]   [Maximum Marks : 50

N.B. :— (1) **All** questions are compulsory and carry equal marks.

(2) Draw neat and labelled diagram wherever necessary.

EITHER

1. (a) Explain three level architecture of DBMS in detail.   5

    (b) Explain the role of database administrator.   5

    OR

    (c) What are Data Models ? Explain in detail.   5

    (d) Explain the following :

         (i)   Database user's

         (ii) Objectives of database systems.   5

    EITHER

2. (a) What is E-R diagram ? Explain with example.   5

    (b) Explain the following :

         Weak and Strong Entity Set with suitable example.   5

    OR

    (c) Discuss the problem on reduction of an E-R schema to tables.   5

    (d) Explain with example relationship set.   5

    EITHER

3. (a) Explain with example aggregate functions.   5

    (b) What is Relational Algebra ? Explain.   5

OR

   (c)   Explain with example natural join.   5

   (d)   List the advantages of relational model.   5

EITHER

4.   (a)   What is Normal form ? Explain 2NF with an example.   5

   (b)   Define functional dependency. Explain with example.   5

OR

   (c)   What is multi valued dependency ? Explain.   5

   (d)   What are the objectives of the normalization ?   5

5.   Attempt **All** :

   (a)   Explain data independence.   2½

   (b)   Explain entity, attributes and relationship.   2½

   (c)   Explain select operation in relational algebra with suitable example.   2½

   (d)   Define 3 NF.   2½