Roll No. ....   Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (CSE) (Sem.–6th)
RDBMS-II
Subject Code : CS-302
Paper ID : [A0470]

Time : 3 Hrs.   Max. Marks : 60

INSTRUCTION TO CANDIDATES :
1. SECTION-A is COMPULSORY.
2. Attempt any FOUR questions from SECTION-B.
3. Attempt any TWO questions from SECTION-C.

SECTION-A   (10 × 2 = 20 Marks)

1. Write short notes on :

   (a) What is data manipulation language ?

   (b) What are triggers ?

   (c) What do you mean by Query by example ?

   (d) What is referential integrity ?

   (e) What is foreign key constraint? Why are such constraints important ?

   (f) List few DDL commands.

   (g) What are the advantages of PL / SQL ?

   (h) What are cursors?

   (i) Define the term functional dependency.

   (j) Give a set of FDs for the relation schema R(A,B,C,D) with primary key AB under which R is in 1NF but not in 2NF.

SECTION-B   (4 × 5 = 20 Marks)

2. Describe in detail various set operations available in relational algebra.

3. What are the different levels of normalization of database? Discuss.

4. Differentiate between relational algebra and relational calculus.

[A-12]-13

5. Is QBE relationally complete? Explain briefly.

6. Write SQL commands for Grant and Revoke. Also explain the role of stored procedures in database management system.

SECTION-C (2 × 10 = 20 Marks)

7. With the help of SQL examples, explain in detail indexes, packages, cursor and views.

8. Consider the following relational database :

employee (person-name, street, city)

works (person-name, company-name, salary)

company (company-name, city)

manages (person-name, manager-name)

Give an SQL DDL definition of this database. Identify referential-integrity constraints that should hold, and include them in the DDL definition.

9. Consider the employee database given in question VIII. Give an expression in SQL for each of the following queries:

(a) Find name of all the employees who work for First Bank Corporation.

(b) Find all employees in the database who live in the same cities as the companies for which they work.

(c) Find all employees in the database who earn more than every employee of Small Bank Corporation.

(d) Find the company that has the smallest payroll.