Sample Test Paper-I

Course Name : Computer Engineering Group

Course Code : CO/CM/IF/CD/CW

Semester   : Third

17332

Subject Title : Relational Database Management System

Marks   : 25

Hours: 1 Hrs.

Q.1 Attempt Any THREE.   **09 Marks**

    a) List any six applications of DBMS.

    b) Define Tuple, Attribute and Domain.

    c) State the use of Projection operator of Relational Algebra with example.

    d) Define Data Independence and list its types.

Q.2 Attempt any TWO.   **08 Marks**

    a) Describe any four Codd's rules/laws of RDBMS.

    b) Explain Three Tier architecture with suitable diagram.

    c) What is Relational Model? Give Suitable example.

Q.3 Attempt any TWO.   **08 Marks**

    a) State the meaning of the following

        i.   Data Mining

        ii.   Data Warehousing

    b) Explain BCNF with suitable example.

    c) Explain Referential Integrity constraint and On Delete Cascade with suitable   example

Sample Test Paper-II

Course Name : Computer Engineering Group

Course Code : CO/CM/IF/CD/CW

Semester   : Third

17332

Subject Title : Relational Database Management System

Marks   : 25   **Hours: 1 Hrs.**

Q.1 Attempt any THREE.   **09 Marks**

   a) Explain any two DML commands with example.

   b) What is snapshot? What are the various operations performed on snapshot?

   c) What are the different uses of Database Triggers?

   d) Explain ACID properties of Transaction.

Q.2 Attempt any TWO.   **08 Marks**

   a) Consider the schema student (r_no, name, course, dob, percentage, class) And solve the following queries.

      i.   Display the name of the students having name starting with letter 'A'.

      ii. Display the list of students having percentage more than 80 and having course as 'CM'.

      iii. Change the course as 'IF' of student 'Amit'.

      iv. Display the list of students having 'First Class from 'CO' course.

   b) What are the views? Give syntax and example of creating view.

   c) What are the locks? Give its importance. Explain its types.

Q3. Attempt any TWO.   **08 Marks**

   a) Explain following with syntax.

      i) Function

      ii) Procedure

   b) Explain Drop and Truncate commands with syntax. State the difference between them.

   c) How to create sequences and synonyms?

Sample Question Paper

Course Name : Diploma in Computer Engineering Group

Course Code : CO /CM/ IF/ CD /CW

Semester   : Third

Subject Title : Relational Database Management System

17332

Marks   : 100

Hours: 3 Hrs.

Instructions

1. All questions are compulsory.

2. Illustrate your answer with neat sketches wherever necessary.

3. Figures to the right indicates full marks.

4. Assume suitable data if necessary.

5. Preferably, write the answers in sequential order.

Q.1 (a) Attempt any <u>SIX</u> of the following.   **12 Marks**

    a) List any four DBMS software.

    b) Describe super key with example.

    c) What is Functional Dependency? Give suitable example.

    d) List any four DDL commands.

    e) Explain group by, having clause of SQL with example.

    f) What is index? List its types.

    g) Explain Shared locks and explicit locks.

    h) What is project operator in Relational Algebra? Give one example.

Q.1 (b) Attempt any <u>TWO</u> of the following   **08 Marks**

    a) Explain any four Codd's Rules/Laws of RDBMS.

    b) Explain ACID properties of Transaction.

    c) What are Predefined Exceptions and User Defined Exceptions?

Q.2 Attempt any <u>FOUR</u> of the following.   **16 Marks**

    a) Describe Hierarchical Data Model with suitable example.

    b) Explain Entity Integrity constraint with example.

    c) Give syntax of UPDATE command. Demonstrate with suitable example.

d) Consider following schema

ACCOUNT_HOLDER (Account_No , Name, Account_Type, PAN_Number, Balance).

Create a view on ACCOUNT_HOLDER having attributes (Account_No, Name, PAN_Number) where Balance is greater than 50,000.

e) What is CURSOR? Explain its types.

f) List and explain four types of Database users.

Q.3 Attempt any <u>FOUR</u> of the following   **16 Marks**

a) Consider Following Schema

Employee (ENO, ENAME, Department, Designation, DOJ, Salary, Dept_Location)

Solve the following query

   i) List the employees having Designation as "Manager" and .Dept_Location as "Mumbai"

   ii) Set the salary as Rs.50,000/- having Designation as "Project Leader"

   iii) List ENO, ENAME, Salary of employees having Salary between Rs. 20,000/- to Rs.30,000/-

   iv) List Ename of employees having 2nd alphabet in the name as "A".

b) Give block-structure of PL/SQL and explain main components.

c) Explain 3NF with suitable example.

d) What are snapshots? Give its uses? How to create a snapshot?

e) What are triggers? How to create triggers?

f) Draw and explain Client-Server architecture.

Q.4 Attempt any <u>FOUR</u> of the following   **16 Marks**

a) Draw an E-R Diagram for College Management System.

b) Write PL/SQL program to display the Factorial of any number.

c) Explain ALTER command. Demonstrate with any two options.

d) Draw and explain State diagram of Transaction.

e) What are sequences? Why it is used? Create sequence for **"STUDENT"** table.

f) What is data warehousing and data mining?

Q.5 Attempt any <u>FOUR</u> of the following.   **16 Marks**

    a) List and explain any four functions of Database Administrator.

    b) What are snapshots? Create Snapshot for **"Vehicle"** table.

    c) Explain Functions in PL/SQL with suitable example.

    d) Explain two Locking Strategies.

    e) Consider following Relational Algebra schema

        STUDENT (RNO, Name, DOB, Percentage, DNO)

        DEPARTMENT (DNO, DNAME, HEAD)

        Write Relational Algebra expressions.

    i. Find Student's name and course from Computer Department

    ii. Get the Student's name who has percentage greater than 70.

    f) Explain four different types of SET operators

Q.6 Attempt any <u>FOUR</u> of the following.   **16 Marks**

    a) List and explain any four advantages of DBMS over File processing system

    b) Explain multivalued dependencies with example

    c) Explain any four aggregate functions with example.

    d) Describe following keys.

        i. Candidate Key

        ii. Primary Key

    e) Describe Grant and Revoke commands.

    f) Explain WHILE….LOOP in PL/SQL with example.