Database Management System [DBMS]

Time: 3 Hrs.]   Prelim Question Paper   [Marks : 70

1. Attempt any **FIVE** of the following :   **[10]**
   (a) List the transaction states.
   (b) State any four database application.
   (c) Define weak entity set.
   (d) Define normalization. Enlist its type.
   (e) Define the following
       (i) Candidate Key   (ii) Super Key
   (f) Enlist four aggregate functions.
   (g) Draw PL/SQL block structure.

2. Attempt any **Three** of the following :   **[12]**
   (a) Explain the levels of Data Abstraction.
   (b) Explain different types of attributes.
   (c) Explain the different types of functional dependencies.
   (d) Distinguish any four points between PROCEDURE and FUNCTION.

3. Attempt any **Three** of the following :   **[12]**
   (a) Explain GROUP BY and ORDER BY CLAUSE with syntax and example.
   (b) Write and explain the syntax for creating PROCEDURES.
   (c) Explain user defined exception handling with the help of example.
   (d) Explain ACID properties of transaction.

4. Attempt any **Three** of the following :   **[12]**
   (a) List and explain TCL commands
   (b) Difference between system privileges and object privileges.
   (c) Explain the explicit cursor with the help of an example.
   (d) Explain 2NF with example.
   (e) List and Explain any five EF Codd's rules.

5. Attempt any **TWO** of the following :   **[12]**
   (a) Draw ER diagram for a car insurance company.
   (b) Normalize database Student_Grade_Report (StudentNo, StudentName, Major, CourseNo, CourseName, InstructorNo, InstructorName, InstructorLocation, Grade) upto 3NF
   (c) Write SQL query for following consider table

EMP(empno, deptno, ename, salary, Designation, joiningdate, DOB,city)

(i) Display names of employees whose experience is more than 10 years

(ii) Display age of employees

(iii) Display average salary of all employee

(iv) Display name of employee who earned highest salary

6. Attempt any **TWO** of the following : [12]

(a) Create table

EMP(empno, deptno, ename, salary, Designation, joiningdate, DOB, city).

(i) Insert one row into the table

(ii) Save the data

(iii) Insert second row into the table

(iv) Undo the insertion of second row

(v) Insert two rows into the table

(vi) Create Savepoint s1

(vii) Insert one row into the table

(viii) Undo upto savepoint s1

(b) Write a PL/SQL program to check whether specified employee is present in EMP table or not. Accept empno from user. If employee does not exist display message using exception handling.

(c) Write a PL/SQL program to print Fibonacci series.

❑ ❑ ❑ ❑ ❑