AJ-125

April-2023

M.Sc. (CA&IT), Sem.-II

DBMS using SQL/PL SQL

Time : 2:30 Hours]   **[Max. Marks : 70**

1. (A) Answer the following :   **9**
    (1) Explain data types used in ORACLE (ANY Three).
    (2) Explain the data integrity constraint in SQL.
    (3) Explain DML, DDL, DCL statements in SQL.

    (B) Write the SQL commands for the following tables.   **5**

    Employee(Emp_id,F_name,L_name,Age,City,Salary,Project_id)

    Project(Project_id,P_Name,Description)

    (1) Display all the data from **Employee** having same age.
    (2) Find out employees name having more than one project in the company.
    (3) Display the sorting list of employee name based on F_name.
    (4) Display the highest salary Project name and full name (F_name and L_name) who is getting salary (using subqueries).
    (5) Display the employee name having maximum salary .

2. (A) Answer the following :   **9**
    (1) Describe the importance of Aggregate function in structured query language. Explain SUM,AVG,COUNT function used in programming.
    (2) State features of Primary Key. How will you implement primary key constraint defined at column value.
    (3) Explain difference between Group function and Scalar function.

    (B) Write example of following functions (ANY **FIVE**) :   **5**
    (1) CONCAT()
    (2) UPPER()
    (3) ROUND()
    (4) LTRIM()
    (5) INITCAP()
    (6) LPAD()
    (7) SQRT()

3. (A) Answer the following : **5**
   (1) Explain the different operations connected with VIEW option. Write the syntax for creating view on multiple table.
   (2) Explain the execution environment of PL/SQL.

   (B) Answer the following (ANY **THREE** Only) : **9**
   (1) What are the advantages of PL/SQL ?
   (2) Write PL/SQL Block that find adding 'n' numbers using FOR Loop.
   (3) Difference between SQL & PL/SQL.
   (4) Write PL/SQL Block to find the given number is ODD or EVEN.

4. (A) Answer the following : (ANY **TWO**) **6**
   (1) Explain different attributes of implicit cursors.
   (2) State implicit and explicit cursors.
   (3) Write PL/SQL code to calculate the max salary of n employees and value of 'n' records is passed to cursor as parameter.

   (B) Answer the following : (ANY **FOUR**) **8**
   (1) What is Cursor ? State different cursor attributes.
   (2) Write PL/SQL code which displays records based on Emp-id, Emp-name, city of employees from EMPLOYEE table (using Cursor function).
   (3) Explain data objects used in SQL.
   (4) State the advantages of Package.
   (5) Explain the specification of Package. Write the syntax code for package creation.

5. (A) Answer the following : (Any **THREE**) **9**
   (1) Explain different types of Triggers in PL/SQL.
   (2) Explain logical structure of Oracle Database Architecture.
   (3) Update Employee Table with salary increment (₹ 2,000) in every employees database(Using trigger function)
   (4) Write PL/SQL block for largest among three numbers using Loop structure.

   (B) Answer the following : (ANY **TWO**) **5**
   (1) State the benefits of Triggers in PL/SQL.
   (2) What are the different types of JOINs in SQL ?
   (3) Explain types of Exception in PL/SQL.
   (4) Write PL/SQL block which displays the records of employee based on emp-id. If emp-id does not exist then display appropriate message (using exception).

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