**Q-1 EMP(emp_no, emp_name, designation, salary, deptno)**

**1) Create table EMP.**

CREATE TABLE EMP (emp_no NUMBER(5) PRIMARY KEY,emp_name VARCHAR2(30),designation VARCHAR2(30),salary NUMBER(10,2),deptno NUMBER(5));

**2) Display information of all employees whose name starts with ‘p’ and ends with ‘h’.**

SELECT *FROM EMP WHERE emp_name LIKE 'p%h';

**3) Insert 5 record in table EMP.**

INSERT INTO EMP (emp_no, emp_name, designation, salary, deptno)VALUES(1, 'RAKESH', 'Manager', 50000, 10),

INSERT INTO EMP (emp_no, emp_name, designation, salary, deptno)VALUES(2, 'MAHESH', 'Engineer', 40000, 20),

INSERT INTO EMP (emp_no, emp_name, designation, salary, deptno)VALUES(3, 'SURESH', 'Analyst', 35000, 30),

INSERT INTO EMP (emp_no, emp_name, designation, salary, deptno)VALUES(4, 'PRAKASH', 'Developer', 45000, 20),

INSERT INTO EMP (emp_no, emp_name, designation, salary, deptno)VALUES(5, 'SUNIL', 'Designer', 38000, 30);

**4) Add new column email_id in EMP table.**

ALTER TABLE EMP ADD email_id VARCHAR2(50);

**Q.-2 Consider the following table and solve the given queries. Employee( emo_no, emp_name, desg, salary, dept)**

**1) create table employee.**

CREATE TABLE Employee (emp_no NUMBER(5) PRIMARY KEY,emp_name VARCHAR2(30),desg VARCHAR2(30),salary NUMBER(10, 2),dept VARCHAR2(30));

**2) Display information of all employees whose names start with ‘m’ and end with ‘a’.**

SELECT * FROM Employee WHERE emp_name LIKE 'm%a';

**3) Display department-wise salary total.**

SELECT dept, SUM(salary) AS total_salary FROM Employee GROUP BY dept;

**4) Add new column contact_no in employee.**

ALTER TABLE Employee ADD contact_no NUMBER(10);

**Q.-3**

**1) Give difference between Schema and Instance.**

**Differentiate the Schemas and Instances.**

| Schema | Instances |
|---|---|
| The overall logical design of the database is called schema. | The collection of information stored in the database at a particular moment is called instances. |
| Schema includes table name, column name, data types and size of columns, various constraints at logical level. | Instances include actual data or information stored in table in form of different records or row. |
| Schema changes infrequently. | Instance change frequently. |
| Create/Drop of table or columns; changes in data types, size or constraint on any column. | Insert, delete or update operation on data stored in database. |

**2) Give difference between Data and Information.**

**Differentiate the Data and Information.**

| Data | Information |
|---|---|
| Data means known facts, that can be recorded and have implicit meaning | Information means processed or organized data. |
| Examples:<br>• Student no: 7001<br>• Student name: Ram<br>• City name: Rajkot | Examples:<br>• Percentage : 82.20%<br>(Derived from marks of all subject)<br>• Run rate in cricket match: 6.0 |
| • Account No: A01<br>• Balance: 5000 | run/over<br>(Derived from total runs and over) |
| Data are row materials used to derive Information. | Information is a product derived from Data. |
| Data is comparatively less useful. | Information is comparatively more useful. |

**Q.-4 Explain DDL and explain any two DDL command.**

DDL (Data Definition Language)

• It is a set of SQL commands used to create, modify and delete database objects such as tables, views, indices, etc.

• It is normally used by DBA and database designers.

• It provides commands like:

CREATE: to create objects in a database.

ALTER: to alter the schema, or logical structure, of the database.

DROP: to delete objects from the database.

TRUNCATE: to remove all records from the table.

**Q.-5 Explain TCL commands with suitable example.**

TCL (Transaction Control language)

• A transaction is a unit of work that is performed against a database.

• A transaction is the propagation of one or more changes to the database.

• It is important to control transactions to ensure data integrity and to handle database errors.

• Transaction Control:

There are following commands used to control transactions:

COMMIT: to save the changes.

ROLLBACK: to rollback the changes.

SAVEPOINT: creates points within groups of transactions in which to ROLLBACK