Q1.What do you understand By Database?

A. A database is an organized collection of structured information, or data, typically stored electronically in a computer system. A database is usually controlled by a database management system (DBMS).

Q2.What do you mean by normalization?

A. Normalization is the process of organizing data in a database. It includes creating tables and establishing relationships between those tables according to rules designed both to protect the data and to make the database more flexible by eliminating redundancy and inconsistent dependency.

Q3.What is Difference between DBMS and RDBMS?

A.

RDBMS	DBMS
1.Data stored is in table format.	1.Data stored is in the file format.
2.Multiple data elements are accessible together.	2.Individual access of data elements.
3.Data in the form of a table are linked together.	3.No connection between data.
4.Normalisation is not achievable.	4.There is normalisation.
5.Support distributed database.	5.No support for distributed database.
6.Data is stored in a large amount.	6.Data stored is a small quantity.
7.Here, redundancy of data is reduced with the help of key and indexes in RDBMS.	7.Data redundancy is common.
8.RDBMS supports multiple users	8.DBMS supports a single user.
9.The software and hardware requirements are higher	9.The software and hardware requirements are low.
Oracle, SQL Server.	XML, Microsoft Access.

Q4.What is MF Cod Rule of RDBMS Systems?

A. MF cod Rule of RDBMS are as follow:
Rule 0: The Foundation Rule
Rule 1: The Information Rule
Rule 2: The Guaranteed Access Rule
Rule 3: Systematic Treatment Of NULL Values
Rule 4: Active/Dynamic Online Catalog Based On The Relational Mode
Rule 5: The Comprehensive Data Sublanguage Rule

Rule 6: The View Updating Rule
Rule 7: High-Level Insert, Update & Delete Rule
Rule 8: Physical Data Independence
Rule 9: Logical Data Independence
Rule 10: Integrity Independence
Rule 11: Distribution Independence
Rule 12: The Non-subversion Rule

Q5.What do you mean by data redundancy?

A. Data redundancy occurs when the same piece of data is stored in two or more separate places and is a common occurrence in many businesses.

Q6.What is meant by DDL interpreter?

A. DDL Interpreter DDL expands to Data Definition Language.
DDL Interpreter as the name suggests interprets the DDL statements such as schema definition statements like create, delete, etc.The result of this interpretation is a set of a table that contains the meta-data which is stored in the data dictionary.

Q7.What is DML Compiler in SQL?

A. A data manipulation language (DML) is a computer programming language used for adding (inserting), deleting, and modifying (updating) data in a database.
A DML is often a sublanguage of a broader database language such as SQL, with the DML comprising some of the operators in the language.

Q8.What is SQL Key Constraints writing an Example of SQL Key Constraints

A. SQL constraints are used to specify rules for the data in a table. Constraints are used to limit the type of data that can go into a table. This ensures the accuracy and reliability of the data in the table. If there is any violation between the constraint and the data action, the action is aborted.

Q9.What is save Point? How to create a save Point write a Query?

A. A SAVEPOINT is a point in a transaction in which you can roll the transaction back to a certain point without rolling back the entire transaction. Syntax for Savepoint command: SAVEPOINT SAVEPOINT_NAME; This command is used only in the creation of SAVEPOINT among all the transactions.

Q10.What is trigger and how to create a Trigger in SQL?

A. A trigger is a special type of stored procedure that automatically runs when an event occurs in the database server. DML triggers run when a user tries to modify data through a data manipulation language (DML) event. DML events are INSERT, UPDATE, or DELETE statements on a table or view.

TASK

1. Create Table Name : Student and Exam

Query:- CREATE TABLE student(Rollno INT PRIMARY KEY, NAME VARCHAR(10), Branch VARCHAR(25));

```
INSERT INTO `student`(`Rollno`, `NAME`, `Branch`)
VALUES(1,"Jay","Computer Science"),(2,"Suhani","Electronic and Com"),
(3,"Kriti","Electronic and Com");
```

```
CREATE TABLE Exam( Rollno INT, S_code TEXT, Marks INT, P_code
CHARACTER, FOREIGN KEY (Rollno) REFERENCES student(Rollno) );
```

```
INSERT INTO `exam`(`Rollno`, `S_code`, `Marks`, `P_code`)

VALUES(1, "CS11", 50, "CS"),(1,"CS12",60,"CS"),(2,"EC101",66,"EC"),

(2,"EC102",70,"EC"),(3,"EC101",45,"EC"),(3,"EC102",50,"EC");
```

2. Create table given below.

Query:- CREATE TABLE Emp(FirstName varchar(10), LastName varchar(10), Address text, City varchar(10), Age int);

```
INSERT INTO `emp`( `FirstName`, `LastName`, `Address`, `City`, `Age` )
VALUES("Mickey","Mouse","123 Fantasy Way","Anaheim",73), ("Bat","Man","321 Cavern
Ave","Gotham",54),
("Wonder","Woman","987 Truth Way","Paradise",39),
("Donald","Duck","555 Quack Street","Mallard",65),
("Bugs","Bunny","567 Carrot Street","Rascal",58),
```

("Wiley","Coyote","999 Acme Way","Canyon",61),
("Cat","Woman","234 Purrfect Street","Hairball",32), ("Tweety","Bird","543","Itotltaw",28);

3. Create table given below: Employee and Incentive.

Query:- (a)SELECT First_name FROM employee WHERE First_name = 'Tom';

(b)SELECT First_name,Salary,Joining_date FROM employee;

(c)SELECT * FROM employee ORDER BY First_name ASC; AND SELECT * FROM employee ORDER BY Salary DESC;

(d)SELECT * FROM employee WHERE First_name LIKE 'j%';

(e)SELECT Department, MAX(Salary) AS MaxSalary FROM Employee GROUP BY Department ORDER BY MaxSalary ASC;

(f)SELECT First_name, incentive_amount FROM incentive,employee HAVING COUNT(incentive_amount) > 3000;

4. Create table given below: Salesperson and Customer

Query:-

(a)SELECT RATING FROM customer WHERE RATING > 100;

(b)SELECT SNAME,CITY from salesperson WHERE city="london" AND COMM > 0.12;

(c)SELECT * FROM salesperson WHERE CITY="barcelona" OR city ="london";

(d)SELECT * FROM salesperson WHERE COMM BETWEEN .10 AND .12;

(e)SELECT * FROM `customer` WHERE CITY = "roe" and RATING<=100;