

MODULE : 5 DATABASE

Q.1 What do you understand by database?

Ans: A database is an electronically stored, systematic collection of data. It can contain any type of data, including words, numbers, images, videos, and files. You can use software called a database management system (DBMS) to store, retrieve and edit data.

Q.2 What is Normalization?

Ans: Normalization is the process of organizing data in a database. It includes creating tables and establishing relationship 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.

Q.3 What is Difference between DBMS and RDBMS?

Ans:

1.RDBMS :

- Data stored is in table formate.
- Multiple data elements are accessible together.
- Data in the form of a table are linked together.
- Normalisation is not achievable.
- Support distributed database.
- Data is stored in a large amount.
- Oracle, SQL Server.

2.DBMS:

- Data stored is in the file formate.
- Individual access of data elements.

- No connection between data.
- There is normalization.
- No support for distributed database.
- Data stored is a small quantity.
- XML, Microsoft access.

Q.5 What do you understand By Data Redundancy?

Ans: Data redundancy occurs when the same piece of data exist in multiple places, whereas data inconsistency is when the same data exist in different formats in multiple tables. Unfortunately, data redundancy can cause data inconsistency, which can provide a company with unreliable and/or meaningless information.

Q.6 What is DDL Interpreter?

Ans: It interprets the DDL (Data Definition Language) Instruction and stores the record in a data dictionary (in a table containing meta-data) Query Optimizer : It executes the DML instructions and picks the lowest cost evaluation plan out of all the alternatives present. DDL includes CREATE, ALTER and DROP.

Q.7 What is DML Compiler in SQL?

Ans: A DML (data manipulation language) refers to a computer programming language that allows you to add (insert), and alter (update) data in a database. A DML is typically a sublanguage of larger database like SQL, with the DML contain some of the language's operators.

Q.8 What is SQL Key Constraints ? writing an Example of SQL Key Constraint.

Ans: In a database table, we can add rules to a column known as constraints. These rules control the data that can be stored in a column.

There are seven types of constraints in SQL:

1. Not null.
2. Unique.
3. Primary key.
4. Foreign key.
5. Check.
6. Default.
7. Create Index.

Q.9 What is Save Point? How to create a save Point write a Query?

Ans: 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 :- `SAVEPOINT SAVEPOINT_NAME;`

This command is used only in the creation of savepoint among all the transactions.

Q.10 What is trigger and how to create a Trigger in SQL?

Ans : 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.

Styntax :-

```
delimiter //
CREATE TRIGGER upd_check BEFORE UPDATE ON account
FOR EACH ROW
BEGIN
    IF NEW.amount < 0 THEN
        SET NEW.amount = 0;
    ELSEIF NEW.amount > 100 THEN
        SET NEW.amount = 100;
    END IF;
END;
delimiter ;
```