**MODULE: 5 (\_Database\_)**

**1.What do you understand By Database?**

**A database is information that is set up for easy access, management and updating the data.**

**2.What is Normalization?**

**Database normalization or database normalisation is the process of structuring a relational database in accordance with a series of so-called normal forms in order to reduce data redundancy and improve data integrity.**

**It was first proposed by British computer scientist Edgar F. Codd as part of his relational model.**

**3.What is Difference between DBMS and RDBMS?**

**DBMS stands for Database Management System, and RDBMS is the acronym for the Relational Database Management system.**

**In DBMS, the data is stored as a file, whereas in RDBMS, data is stored in the form of tables.**

**4.What is MF Cod Rule of RDBMS Systems?**

**Codd's twelve rules are a set of thirteen rules (numbered zero to twelve) proposed by Edgar F. Codd, a pioneer of the relational model for databases, designed to define what is required from a database management system in order for it to be considered relational, i.e., a relational database management system (RDBMS).**

**5.What do you understand By Data Redundancy?**

**Data redundancy occurs when the same piece of data exists in multiple places, whereas data inconsistency is when the same data exists in different formats in multiple tables.**

**Unfortunately, data redundancy can cause data inconsistency, which can provide a company with unreliable and/or meaningless information.**

**6.What is DDL Interpreter?**

**DDL Interpreter: It processes the DDL statements into a set of table containing meta data (data about data).**

**Embedded DML Pre-compiler: It processes DML statements embedded in an application program into procedural calls.**

**Query Optimizer: It executes the instruction generated by DML Compiler.**

**7.What is DML Compiler in SQL?**

**DML Compiler: It processes the DML statements into low level instruction (machine language), so that they can be executed.**

**DDL Interpreter: It processes the DDL statements into a set of table containing meta data (data about data).**

**8.What is SQL Key Constraints writing an Example of SQL Key Constraints.**

**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.**

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

**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.**