1. what is data

Data is the collection of facts, such as numbers, words, measurements, observations or just the descriptions of things.

2. what is Information?

Information is a term used to describe text that is informative to the individual reading it or the computer processing.

3. what is Database (DB)?

**Database** is a systematic collection related of Data, that represent some rea world entities.

4. What is the Relation Database Management System (RDBMS)?

Relational Database Management system is a DBMS specifically configured for a relational database. RDBMS is known as advanced version of DBMS OR subsets of DBMS.

**Database Management System (DBMS)** is a software application that interacts with the user, applications and the database itself to capture and analyze data. The data stored in the database can be modified, retrieved and deleted, and can be of any type like strings, numbers, images etc.

5. Define the importance of Relation Database Management System (RDBMS)?

* Makes it easy to manage large amount of information.
* Handles security.
* Backups
* Concurrency
* Interacts with system applications

6. As we all know that there are Two types of Databases

Relational Database (SQL) AND Non-Relational DB (NO SQL). what is the difference between

them.

Relational database are organized as a set of tables with columns and rows.

Relational database technology provides the most efficient and flexible way to access structured information.

Nonrelational database, allows unstructured and semi structured data to be stored and manipulated.

7. List examples of Relation Database Management System (RDBMS)?

Microsoft SQL server, oracle Database, MySQL and IBM DB2.

8. List examples of Non-Relational DB(NoSQL)?

MongoDB, Apache Cassandra, Redis, Couchbase and Apache HBase.

9. Define and Describe is Structured Query Language (SQL)?

SQL is the core of a relational database which is used for accessing and managing the database.

It's Standardized language for interacting with RDMS.

10. List and Describe each of the different subsets of SQL (Mean DDL, DML,

DCL, TCL)?

* **DDL:  Data Definition Language**
* It allows you to perform various operations on the Database.
* This includes changes to the structure of the table like creation of table, altering table, deleting a table etc.
* All DDL commands are auto-committed. That means it saves all the changes permanently in the database.
* **DML: Data Manipulation Language**
* DML commands are used for manipulating the data stored in the table and not the table itself.
* It allows you to access and manipulate data. It helps you to insert, update, delete and retrieve data from the database.
* DML commands are not auto-committed. It means changes are not permanent to database, they can be rolled back.
* **DCL: Data Control Language**
* Data control language are the commands to grant and take back authority from any database user.
* It allows you to control access to the database. Example – Grant or Revoke access permissions.
* **TCL: Transaction Control Language**
* Transaction Control Language (TCL) commands are used to manage transactions in the database. These are used to manage the changes made to the data in a table by DML statements. It also allows statements to be grouped together into logical transactions.
* Example – Commit, Rollback, Savepoint, Set Transaction.

11. what is table in Database (DB)?

A table is a collection of related data held in a table format within a database. It consists of columns and rows. In relational databases, and flat file databases, a table is a set of data elements using a model of vertical columns and horizontal rows,

12. what is column and Row(tuples) in table?

The columns in a table is a field and is also referred to as an attribute.

The row represents a group of related data values.