1. A Relational Model (RM) represents the database as a collection of relations,it is a table of values. Every row in the table represents a collection of related data values. These rows in the table denote a real-world entity or relationship.
2. DBMS software primarily functions as an interface between the end user and the database, simultaneously managing the data, the database engine, and the database schema in order to facilitate the organization and manipulation of data.
3. SQL is a domain-specific language used in programming and designed for managing data held in a relational database management system, or for stream processing in a relational data stream management system
4. A primary key , also called a primary keyword,is a key in a relational database that is unique for each record It is a unique identifier, such as a driver license number, telephone number including area code or vehicle identification number . A relational database must always have one and only one primary ke
5. A unique key is a set of one or more than one fields/columns of a table that uniquely identify a record in a database table.
6. You can say that it is little like primary key but it can accept only one null value and it cannot have duplicate values.
7. A foreign key is a set of attributes in a table that refers to the primary key of another table. The foreign key links these two tables
8. The types of join are In an inner join, we only select the data which is common in both the tables all the records from both the tables matching up the condition mentioned with the join are picked in this join.

The left join, we select all the data from the left table and from the right table only select the data set which matches up with the condition mentioned with the join

The right join, we select all the data from the right table and from the left table only select the data set which matches up with the condition mentioned with the join

1. Database Normalization is a process and it should be carried out for every database you design. The process of taking a database design, and apply a set of formal criteria and rules, is called Normal Forms
2. Denormalisation is the process of adding precomputed redundant data to an otherwise normalized relational database to improve read performance of the database. Normalizing a database involves removing redundancy so only a single copy exists of each piece of information.

The types are First Normal Form (1 NF),Second Normal Form (2 NF),Third Normal Form (3 NF),Boyce Codd Normal Form or Fourth Normal Form ( BCNF or 4 NF),Fifth Normal Form (5 NF) andSixth Normal Form (6 NF)

1. A database view is a subset of a database and is based on a query that runs on one or more database tables. Database views are saved in the database as named queries and can be used to save frequently used, complex queries
2. Write a SQL query to get the third-highest salary of an employee from employee\_table?

Q5

1. A distributed system is any network structure that consists of autonomous computers that are connected using a distribution middleware. Distributed systems facilitate sharing different resources and capabilities, to provide users with a single and integrated coherent network
2. Resiliency is the ability of a the server, network, storage system, or an entire data centre, to recover quickly and continue operating even when there has been an equipment failure, power outage or other disruption.

3.The challenges Heterogeneity: The Internet enables users to access services and run applications over a heterogeneous collection of computers and networks. ...

Transparency,Openness,Concurrency,Security,Scalability and Failure Handling.