**What is the difference between the TRUNCATE and DELETE command?**

The DELETE command is used by the user to remove or eliminate a specific row(s) in the table while TRUNCATE is used to delete all rows in the table specified.

**What are the different subsets of SQL?**

DDL – Data definition language

DML – Data manipulation language

DCL – Data control language

TCL – Transaction Control Language

**What do you mean by DBMS?**

Database management system is a software which is used by the user to capture and analyse data. It is used to insert, update and delete data in the system.

**What do you mean by table and field in SQL?**

Table is a collection of fields and rows while field is the rows inside the table

**What are JOINs in SQL?**

JOIN clause is used by the used to combine two or more table together to extract the data. The different types of JOIN are: LEFT, RIGHT, FULL, INNER

**What is the difference between CHAR and VARCHAR in SQL?**

The CHAR command is used to store a specified length of data while VARCHAR is used to store any length data. For example: CHAR(10) will store data for a length of 10 while VARCHAR(10) could store any data length 2, 4, 6, 8, 10

**What is PRIMARY key?**

A set of attributes that can be used to uniquely identify the value that can be later used to perform JOINs.

**What are CONSTRAINTS?**

It is used to limit data type of the table. Different types of CONSTRAINTS are:

1. NOT NULL
2. UNIQUE
3. DEFAULT
4. INDEX
5. PRIMARY KEY
6. FOREIGN KEY

**What is the difference between SQL and mySQL?**

The difference is that SQL is a programming language while mySQL is database management system.

**What is unique and foreign key?**

*Unique key* – is a key that identifies single row in the table uniquely and no duplications are allowed.

*Foreign key* – is a key that is used to perform JOINs between different tables by connecting foreign key to primary key.

**What is the difference between clustered and non-clustered indexes?**

The clustered index is sorted array that returns the value with all data related to it (similar as phone book by looking for name we find all the data required)

Non-clustered index is sorted array of value that user is looking and by finding it return the location of data for that value (similar to book appendix by looking for specific topic or word we find the page number where data is available).

**Write a SQL query to return the current data?**

SELECT GETDATE();

**What is Denormalization?**

Denormalization is by having redundant data. Basically, it is putting all tables into one single table.

**What is an INDEX?**

INDEX is a command used to speed up the database to return the queries quicker. It can be used only on 1 column.

**What is normalization?**

Normalization is the process used by engineer to reduce the data redundancy. That means that there are multiple tables are being built instead of 1 table. It breaks data into different tables.

**What is DROP command?**

DROP command is used to drop a specific table inside the database

**What is trigger in SQL?**

Is a function that activates specific tasks once a specific data modification is being made

**Are NULL values same as BLANK or ZERO values?**

No, the NULL value represents a value that is not applicable or available.

**What is a subquery in SQL?**

It is a query inside the query (SELECT \* FROM TABLE WHERE ID (SELECT ID FROM TABLE));

**How to get a count of ROWS in the table? What function is used?**

SELECT COUNT(\*) FROM TABLE;

**What is GROUP clause?**

It is a command that return result a single value for each command such as: Count, Min. Max, AVG, SUM etc. Its groups data by category or specified column data.

What is relationship and what relationships exist?

Relationship specifies how tables can be joined.

One – to – One relationship

One – to – Many relationship

Many – to – One relationship

Self – Referencing relationship

**What is CLAUSE in SQL?**

It helps to limit the results returned in SQL by using specific command such as WHERE and HAVING.

**Difference between HAVING and WHERE clause?**

The difference is that WHERE is helping the query to limit the values returned by optimizing query while HAVING is similar clause but it is performed after the GROUP of data is being completed.

**What is INTERSECT command?**

INTERSECT command is used to fetch common records between two table.

**SQL commands:**

SUBSTRING(name, 1, 5) – to fetch first 5 characters of a string

LTRIM – removing space in string on left side

RTRIM – removing space in string on right side

DISTINCT – returning unique values

LIKE % – operator to find data specific path way

**What is a VIEW?**

View is a virtual table that engineers use if they do not want to show a specific columns or if they need to combine multiple data source into 1 table.