**Section 1: Theoretical Questions**

**Q1 - What does SQL stand for and what are its primary functions**

Solution-

* **SQL** is a programming language used to interact with Relational Data-Base
* SQL stands for Structural Query Language

Shortly it is used to perform CRUD Operations

* **C = Create**
* **R = Read**
* **U = Update**
* **D = Delete**

And the Types of SQL commands used to perform this Functions are

1. DDL – Data definition Language
2. DML – Data Manipulation Language
3. DCL – Data Control Language
4. TCL – Transaction Control Language

**Q 2 -Explain the difference between a primary key and a foreign key.**

Solution-

* Primary key and foreign key are two types of constrains used to establish a relationship between tables.
* **Primary key –** Primary key constrain is combination of multiple constrains (Not Null, Unique, One in Table, Main Key), If we apply primary key to any of the column in table the data inside the column must have (Not Null value, Unique value)
* **Foreign key –** Foreign key is nothing but referencing the relation between two Tables. How two tables are connected, through which column the table is connected, that is the same column present in the both the tables. that column acts as a primary key in one table and particular column will act as a foreign key in another table.

**3. What is a subquery in SQL and when would you use it?**

Solution-

* Subquery is Nothing but Query Inside a Another query.
* Its is used to derive data from a value and that value is come from 2nd Query
* (ex- SQL query to find students who got marks more than Average marks)
* We Use subquery –
  + - **Comparison**
    - **Filtering data**
    - **Nested Operations**

**4. Can you describe what a view is in SQL and how it differs from a table?**

Solution-

* A view is a virtual table that is based on the result of a SELECT query.
* View does not store the data; Data is stored in the form of query.
* But table is collection of data.

**5. What is a stored procedure in SQL and what are its advantages?**

Solution-

* A stored procedure in SQL is a collection of one or more SQL statements