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| **Batch ID:58[CS/SCSL-A/58/01]** | **(MODULE- 02)** | | ***Date***:- |
| **Name:** | **Obtained Marks:** |  | **Time:** |
| **Student ID:** | **Full Marks:** |

**[Answer the following Questions:]**

**1. What is JOIN in SQL?**

Join lets us combine data from two or more tables into a single result set. The most common type of join is an **inner join** that returns rows from both tables only if their related columns match, another is **outer join** that returns rows from one table in the join even if the other table doesn't contain a matching row.

**2. What is table?**

A relational database consists of tables. Table is viewed as a **two-dimensional matrix** consists of rows and columns that can be referred to as records and fields. It is modeled after **a real-world entity**. The **columns** of the table represent the attributes of the entity and **row** of the table represents one **instance** of the entity. A value is stored at the **intersection** of each row and column that is called a cell.

**3. What is the difference between Action Query and Query?**

The execution of an INSERT, UPDATE, or DELETE statement is often referred to as an action query.

The execution of a SELECT statement is commonly referred to as a query.

**4. What is stored procedure?**

A stored procedure is one or more SQL statements that have been **compiled** and stored with the database. As the SQL statements in procedure are only **compiled and optimized** the first time they're executed it can improve database performance.

**5. What is Function?**

A function consists of the **function name**, followed by a **set of parentheses** that contains any parameters, or arguments, required by the function. If a function requires two or more arguments, they are separated by using commas.

6. **What is use of DISTINCT keyword?**

The DISTINCT keyword **prevents duplicate** (identical) rows from being included in the result set. It also causes the result set to be sorted by its first column. To use the DISTINCT keyword, we should code it immediately after the SELECT keyword.

**7. Difference Between Correlated and non-correlated subquery**?

**Correlated subquery** - In correlated subquery, inner query is dependent on the outer query. Outer query needs to be executed before inner query

**Non-Correlated subquery** - In non-correlated query inner query does not dependent on the outer query.

**8. What is the difference between Primary Key and Unique key?**

**Primary key**: The primary key uniquely identifies each record in the table. It cannot contain null value and it cannot be modified.

**Unique Key**: The unique key prevents duplicate entries in a column. It allows Only one NULL value and it can be modified.

**9. What is the difference between Scalar Function and Aggregate Function?**

**Scalar Function**: A function that operates on a single value and returns a single value.

**Aggregate Function**: A function that operates on a series of values and returns a single value.

**10. What is the difference between SQL Constraint and SQL Command?**

**Constraint**: It limits the values that can be stored in the columns of a table. PK, FK, Not Null

**Command**: SQL commands are used to perform specific tasks within the database. DDL, DML

**11. What is the relation between Primary key and Foreign key?**

**Primary key**: One or more than one column/s that uniquely identifies each row of a table is called primary key.

**Foreign key**: One or more column of a table that refers to the primary key in another table is called foreign key. They establish relationship between more than one tables.

**12. Difference between Aggregate and non-aggregate function.**

**Aggregate functions** operate on many records and produce a summary, works with GROUP BY. **Non-aggregate** functions operate on each record independently.

**13. Difference between derived table and CTE.**

**Derived Table**: It is made up of the columns and rows of a result set from a query.

**CTE**: It is an expression, usually a SELECT statement, that creates a temporary table and is used in the following query

**14. Define Table and alias in SQL.**

**Table:** A table is a set of rows and columns. It is a collection of instances of data that have the same general attributes

**Alias**: Aliases are temporary names given to tables or columns for the duration of a SQL query.

**15. What is RDBMS?**

It stands for **Relational Database Management System**. It's the most common type of DBMS used for working with data stored in multiple tables related to each other .The SQL programming language is used to interact with RDBMS.