Worksheet-Set 6: SQL Solutions

1. **Which of the following are TCL commands?**
   A. Commit
   C. Rollback
   D. Savepoint

2. **Which of the following are DDL commands?**
   A. Create
   C. Drop
   D. Alter

3. **Which of the following is a legal expression in SQL?**
   B. SELECT NAME FROM SALES

4. **DCL provides commands to perform actions like-**
   C. Authorizing Access and other control over Database

5. **Which of the following should be enclosed in double quotes?** B. Column Alias

6. **Which of the following command makes the updates performed by the transaction permanent in the database?**
   B. COMMIT

7. **A subquery in an SQL Select statement is enclosed in:**
   A. Parenthesis - (...).

8. **The result of a SQL SELECT statement is a :-** A. FILE

9. **Which of the following do you need to consider when you make a table in a SQL?**
   D. All of the mentioned

10. **If you don't specify ASC and DESC after a SQL ORDER BY clause, the following is used by___?**
    A. ASC

11. **What is denormalization?**

Denormalization in SQL is the process of intentionally adding redundant data to a database in order to improve performance by reducing the number of joins required to retrieve data. It involves breaking the rules of normalization, which is a process of organizing data in a database to eliminate redundancy and improve data integrity.

The goal of denormalization is to improve performance by reducing the number of tables joins required to retrieve data, which can be a costly operation in terms of processing time and system resources. By duplicating data in multiple tables or adding additional columns to a table, denormalization can help reduce the number of joins required to retrieve data, resulting in faster query response times.

However, denormalization can also lead to data redundancy and inconsistencies if not implemented carefully, which can cause problems with data integrity and maintenance. It can also make it more difficult to make changes to the database schema in the future, as changes must be made to all denormalized data.

Overall, denormalization should be used judiciously and only when necessary to improve performance, and only after careful consideration of the potential trade-offs and consequences.

12. What is a database cursor?

In SQL, a database cursor is a mechanism used to traverse and process a set of rows returned by a query. A cursor provides a way to iterate through the results of a query one row at a time and perform operations on each row. Cursors are useful for situations where a query returns a large result set and processing all the results at once is not practical due to memory or processing constraints.

13. What are the different types of the queries?

In SQL, there are several types of queries that can be used to retrieve and manipulate data:

SELECT: retrieves data from one or more tables

INSERT: inserts new data into a table

UPDATE: updates existing data in a table

DELETE: deletes data from a table

CREATE: creates a new table, view, or other database object

DROP: deletes a table, view, or other database object

ALTER: modifies the structure of a table or other database object

14. Define constraint?

a constraint is a rule that is defined on a column or set of columns in a table to enforce data integrity and consistency. Constraints are used to ensure that the data in a table follows certain rules or meets certain conditions. There are several types of constraints, including:

Primary key: a constraint that uniquely identifies each row in a table

Foreign key: a constraint that ensures referential integrity between two tables

Unique: a constraint that ensures that each value in a column is unique

Not null: a constraint that ensures that a column cannot contain null values

Check: a constraint that ensures that the data in a column meets a specified condition

15. What is auto increment?

auto increment is a feature that allows a column in a table to automatically generate a new value when a new row is inserted into the table. This is typically used for primary key columns to ensure that each row in the table has a unique identifier. When a new row is inserted into the table, the auto increment column is automatically assigned the next available value. The syntax for enabling auto increment varies depending on the specific SQL database system being used, but it typically involves specifying the column as an auto increment column when creating the table.