WORKSHEET 1 SQL

Q1 and Q2 have one or more correct answer. Choose all the correct option to answer your question.

1. Which of the following is/are DDL commands in SQL?

Ans. A)Create And D) ALTER

2. Which of the following is/are DML commands in SQL?

Ans. A) Update, B) Delete And C) Select

Q3 to Q10 have only one correct answer. Choose the correct option to answer your question.

3. Full form of SQL is:

Ans. B) Structured Query Language

4. Full form of DDL is:

Ans. B) Data Definition Language

5. DML is:

Ans. A) Data Manipulation Language

6. Which of the following statements can be used to create a table with column B int type and C floattype?

Ans. C) Create Table A (B int,C float)

7. Which of the following statements can be used to add a column D (float type) to the table A created above?

Ans. B) Alter Table A ADD COLUMN D float

8. Which of the following statements can be used to drop the column added in the above question?

Ans. B) Alter Table A Drop Column D

9. Which of the following statements can be used to change the data type (from float to int) of the column Dof table A created in above questions?

Ans. B) Alter Table A Alter Column D int

10. Suppose we want to make Column B of Table A as primary key of the table. By which of the following statements we can do it?

Ans. C) Alter Table A Add Primary key B

Q11 to Q15 are subjective answer type questions, Answer them briefly.

11. **What is data-warehouse?**

Ans. A data warehouse is a type of data management system that is designed to enable and support business intelligence (BI) activities, especially analytics. Data warehouses are solely intended to perform queries and analysis and often contain large amounts of historical data. The data within a data warehouse is usually derived from a wide range of sources such as application log files and

transaction applications. A data warehouse centralizes and consolidates large amounts of data from multiple sources. Its analytical capabilities allow organizations to derive valuable business insights from their data to improve decision-making. Over time, it builds a historical record that can be invaluable to data scientists and business analysts. Because of these capabilities, a data warehouse can be considered an organization's "single source of truth."

12. What is the difference between OLTP VS OLAP?

Ans. OLTP and OLAP: The two terms look similar but refer to different kinds of systems. Online transaction processing (OLTP) captures, stores, and processes data from transactions in real time. Online analytical processing (OLAP) uses complex queries to analyze aggregated historical data from OLTP systems.

13. What are the various characteristics of data-warehouse?

Ans. Subject-Oriented -: A data warehouse target on the modeling and analysis of data for decision-makers. Therefore, data warehouses typically provide a concise and straightforward view around a particular subject, such as customer, product, or sales, instead of the global organization's ongoing operations. This is done by excluding data that are not useful concerning the subject and including all data needed by the users to understand the subject.

Integrated -: A data warehouse integrates various heterogeneous data sources like RDBMS, flat files, and online transaction records. It requires performing data cleaning and integration during data warehousing to ensure consistency

Time-Variant -: Historical information is kept in a data warehouse. For example, one can retrieve files from 3 months, 6 months, 12 months, or even previous data from a data warehouse. These variations with a transactions system, where often only the most current file is kept.y in naming conventions, attributes types, etc., among different data sources.

Non-Volatile -: The data warehouse is a physically separate data storage, which is transformed from the source operational RDBMS. The operational updates of data do not occur in the data warehouse, i.e., update, insert, and delete operations are not performed. It usually requires only two procedures in data accessing: Initial loading of data and access to data. Therefore, the DW does not require transaction processing, recovery, and concurrency capabilities, which allows for substantial speedup of data retrieval. Non-Volatile defines that once entered into the warehouse, and data should not change.

14. What is Star-Schema??

Ans. A star schema is the elementary form of a dimensional model, in which data are organized into facts and dimensions. A fact is an event that is counted or measured, such as a sale or log in. A dimension includes reference data about the fact, such as date, item, or customer.

15. What do you mean by SETL?

Ans. SETL (SET Language) is a very high-level programming language based on the mathematical theory of sets. It was originally developed by (Jack) Jacob T. Schwartz at the New York University (NYU) Courant Institute of Mathematical Sciences in the late 1960s.