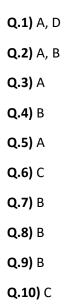
## **WORKSHEET 1 SQL**



- **Q.11)** A **Data Warehouse** is a relational database that is designed for query and analysis rather than transaction processing. It includes historical data derived from transaction data from single and multiple sources. It provides integrated, enterprise-wide, historical data and focuses on providing support for decision-makers for data modeling and analysis.
- **Q.12) OLTP**: It is optimized for processing a massive number of transactions. OLTP systems are designed for use by frontline workers (e.g., cashiers, bank tellers, hotel desk clerks) or for customer self-service applications (e.g., online banking, e-commerce, travel reservations).

**OLAP:** It is optimized for conducting complex data analysis for smarter decision-making. OLAP systems are designed for use by data scientists, business analysts and knowledge workers, and they support business intelligence (BI), data mining and other decision support applications.

## Q.13) Characteristics of Data Warehouse are:

- **1. Subject-oriented** A data warehouse is a subject-oriented approach. Because, it provides information on a specific topic rather than information about an organization's ongoing operations.
- **2. Integrated** In a data warehouse, integration entails establishing a standard unit of measurement from various databases for all similar data. Within it, you must store data in a simple and universally acceptable manner.

- **3. Time-variant** In comparison to operating systems, the data warehouse has a relatively long-time horizon. The data stored in a data warehouse is acknowledged over time and provides historical information.
- **4. Non-volatile** The data warehouse is also non-volatile, which means that you cannot erase the previous data. The data is read-only and is only updated regularly.
- Q.14) A **Star Schema** is a database organizational structure optimized for use in a data warehouse or business intelligence that uses a single large fact table to store transactional or measured data, and one or more smaller dimensional tables that store attributes about the data.
- Q.15) **SETL (SET Language)** is a very high-level programming language based on the mathematical theory of sets.