**SQL Worksheet 1**

1.a,d

2.d

3.b

4.b

5.a

6.c

7.b

8.a

9.b

10.c

**11.What is data warehouse?**

A data warehouse is a centralized storage system that allows for the storing, analyzing,

and interpreting of data in order to facilitate better decision-making.

A data warehouse is a type of data management system that facilitates and supports business intelligence (BI) activities, specifically analysis.

Data warehouses are primarily designed to facilitate searches and analyses and usually contain large amounts of historical data

**12.What is the difference between OLTP VS OLAP?**

OLTP-An OLTP system captures and maintains transaction data in a database. Each transaction involves individual database records made up of multiple fields or columns.

OLAP- Online analytical processing (OLAP) uses complex queries to analyze aggregated historical data from OLTP systems.

OLAP applies complex queries to large amounts of historical data, aggregated from OLTP databases and other sources, for data mining, analytics, and business intelligence projects.

In OLAP, the emphasis is on response time to these complex queries.

Each query involves one or more columns of data aggregated from many rows

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

The four characteristics of a data warehouse, also called features of a data warehouse, include SUBJECT ORIENTED, TIME VARIANT, INTEGRATED and NON-VOLATILE.

The three prominent ones among these are. INTEGRATED, TIME VARIANT, NON VOLATILE.

Subject oriented, on the other hand, is an unique feature of the data warehouse.

These features of a data warehouse differentiate it from any other set of databases or data by characterization.

1.Subject Oriented

Analysis of the data for the decision makers of a business can be done easily by constricting to a particular subject area of the Data warehouse.

This makes understanding and analysis of the data concise and straightforward by excluding the unwanted information on some subject that is not needed for decision-making.

This means that the ongoing operations of an organization are not taken into consideration.

2.Integrated

Data warehouses consist of data from different variable sources integrated under one platform.

This data obtained is extracted and transformed maintaining uniformity without depending on the source it was obtained from, this feature is known as Integrated.

Standards are established which are universally acceptable for the data present in the warehouse.

3.Time Variant

One of the important properties of the data warehouse is the historical perspective it holds.

It keeps the huge volume of data from all databases stored in accordance with the elements of time.

It consists of a temporal element and extensive time horizon.

Inability to change the element of time is an essential aspect of time variance. Record key is used to display time variance.

4.Non Volatile

Data is updated by uploading data in the data warehouse to protect data from momentary changes.

This means that once a data is fed, there can be no alteration or changes made. The inability to be erased is called the non-volatile character of the data warehouse environment.

data is read only and allows only two functions to be performed: Access and Loading.

**14.what is Star-Schema?**

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.

**15.what do you mean by SETL?**

The SET command is used with UPDATE to specify which columns and values that should be updated in a table.