

**MIDTERM EXAMINATION**  
**Fall 2010 (8 Dec 2010)**  
**CS614- Data Warehousing**

**Question No: 1 (Marks: 1) - Please choose one**

Data Warehouse is about taking / collecting data from different \_\_\_\_\_ sources:

- ▶ Harmonized
- ▶ Identical
- ▶ Homogeneous
- ▶ **Heterogeneous**

**Question No: 2 (Marks: 1) - Please choose one**

\_\_\_\_\_ is class of Decision Support Environment.

- ▶ OLTP
- ▶ **OLAP**
- ▶ DBMS
- ▶ Network

**Question No: 3 (Marks: 1) - Please choose one**

For good decision making, data should be integrated across the organization to cross the LoB (Line of Business). This is to give the total view of organization from:

- ▶ Owner's Perspective
- ▶ Customer's Perspective
- ▶ **Decision Maker's Perspective**
- ▶ Employee's Perspective

**Question No: 4 (Marks: 1) - Please choose one**

For a relation to be in 4NF it must be:-

- ▶ In 2NF if and only if it is in first normal form and all nonkey attributes are fully functionally dependent on the key.
- ▶ In 3NF and every non-key column is non-transitively dependent upon its primary key.
- ▶ In 3NF and every non-key column is non-transitively dependent upon its Foreign key.
- ▶ **In 3NF and It does not have multi valued dependencies**

**Question No: 5 (Marks: 1) - Please choose one**

Horizontal splitting breaks a table into multiple tables based upon \_\_\_\_\_

- ▶ Common Row values
- ▶ Range of Data.
- ▶ Redundant data.
- ▶ **Common column values.**

**Question No: 6 (Marks: 1) - Please choose one**

D-Normalization speeds up \_\_\_\_\_

- ▶ **Data Retrieval**
- ▶ Data Duplication
- ▶ Data Extraction
- ▶ Data Loading

**Question No: 7 (Marks: 1) - Please choose one**

The most common use of range partitioning is on \_\_\_\_\_.

- ▶ **Date**
- ▶ Rows
- ▶ DSS
- ▶ **None of these**

**Question No: 8 (Marks: 1) - Please choose one**

The fact table is a way of *visualizing as* an \_\_\_\_\_ cube

- ▶ Rolled Up
- ▶ **Un-rolled**

Imrangee

- ▶ Rolled Down
- ▶ None of these

**Question No: 9 (Marks: 1) - Please choose one**

High Granularity, more \_\_\_\_\_.

- ▶ **Details**
- ▶ Dimensions
- ▶ Aggregates
- ▶ Cubes

**Question No: 10 (Marks: 1) - Please choose one**

Transactional fact tables do not have records for events that do not occur. These are called

- ▶ **Not Recording Facts**
- ▶ Fact-less Facts
- ▶ Null Facts
- ▶ None of these

**Question No: 11 (Marks: 1) - Please choose one**

Cubes not drilled down is, It is a \_\_\_\_\_.

- ▶ **Data Mart**
- ▶ DWH
- ▶ DOLAP
- ▶ None of these

**Question No: 12 (Marks: 1) - Please choose one**

During ETL process of an organization, suppose you have data which can be transformed using any of the transformation method. Which of the following strategy will be your choice for least complexity?

- ▶ **One-to-One Scalar Transformation**
- ▶ One-to-Many Element Transformation
- ▶ Many-to-Many Element Transformation
- ▶ Many-to-One Element Transformation

**Question No: 13 (Marks: 1) - Please choose one**

Full & Incremental Extraction are the types of \_\_\_\_\_ Extraction

- ▶ **Logical**
- ▶ Physical
- ▶ Both Logical & Physical
- ▶ None of Above

**Question No: 14 (Marks: 1) - Please choose one**

Selectivity is low in \_\_\_\_\_ environment.

- ▶ **DWH**
- ▶ DBMS
- ▶ OLTP
- ▶ None of Above

**Question No: 15 (Marks: 1) - Please choose one**

When performing objective assessments, companies follow a set of principles to develop metrics specific to their needs, there is hard to have “one size fits all” approach. Which of the following statement represents the pervasive functional forms?

- ▶ **Simple Ratio, Min or Max Operation, Weighted Average**
- ▶ Only Complex Ratio, Min Operation, Max Operation
- ▶ Only Simple Ratio, Min or Max Operation
- ▶ Only Min or Max Operation, Weighted Average

**Question No: 16 (Marks: 1) - Please choose one**

The input to the data warehouse can come from OLTP or transactional system but not from other third party database.

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- ▶ True
- ▶ **False**

**Question No: 17 (Marks: 1) - Please choose one**

Normalization effects performance

- ▶ True
- ▶ **False**

**Question No: 18 (Marks: 1) - Please choose one**

MOLAP physically builds “cubes” for direct access in a multi-dimensional database (MDD) Therefore \_\_\_\_\_ is not supported. ▶ One-to-One

- ▶ Facts
- ▶ **ANSI SQL**
- ▶ Dimensions
- ▶ None of these

**Question No: 19 (Marks: 1) - Please choose one**

The users of data warehouse are knowledge workers in other words they are \_\_\_\_\_ in the organization.

- ▶ **Decision maker**
- ▶ Manager
- ▶ Database Administrator
- ▶ DWH Analyst

**Question No: 20 (Marks: 1) - Please choose one**

If  $w$  is the window size and  $n$  is the size of data set, then the complexity of merging phase in BSN method is \_\_\_\_\_

- ▶  $O(n)$
- ▶  $O(w)$
- ▶  **$O(w n)$**
- ▶  $O(w \log n)$

**Question No: 21 (Marks: 2)**

Briefly describe features of MOLAP.

**Question No: 22 (Marks: 2)**

Name the steps involved in cleansing of data?

**Question No: 23 (Marks: 3)**

Briefly describe the features of Star Schema?

**Question No: 24 (Marks: 3)**

Briefly describe, what is multi-pass BSN Approach?

**Question No: 25 (Marks: 5)**

What are the benefits of HOLAP & DOLAP over MOLAP & ROLAP?

**Question No: 26 (Marks: 5)**

What is the relationship between Data quality and the value of a particular application?  
When efforts for data quality are logical?