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Roll No. ....

**TCS-833**

**B. Tech. (CSE) (EIGHTH SEMESTER)  
MID SEMESTER EXAMINATION, 2021  
DATA MINING AND WAREHOUSING**

**Time : 1½ Hours**

**Maximum Marks : 50**

**Note :** (i) Answer all the questions by choosing any *one* of the sub-questions.

(ii) Each question carries 10 marks.

1. (a) Multidimensional data models can exist in the form of star schema, snowflake schema and fact constellation schema. Explain all these forms with a neat diagram. 10 Marks (CO1)

**OR**

- (b) What is data cleaning ? In real world data, tuples with missing values for some attributes are common occurrence. Describe various methods for handling this problem. 10 Marks (CO2)

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2. (a) What is Data Warehouse ?  
Diagrammatically illustrate and discuss  
the data warehousing architecture.

10 Marks (CO1)

OR

- (b) Write short notes on the following :

10 Marks (CO1)

- (i) Concept Hierarchy
- (ii) Data characterization and discrimination
- (iii) Data Mart
- (iv) Ordinal and nominal data

3. (a) What is data mining ? Explain the steps of  
data mining process. Give the sketch of  
the KDD process. 10 Marks (CO3)

OR

- (b) Discuss the following OLAP operations :

10 Marks (CO1)

- (i) Roll-up
- (ii) Drill-down
- (iii) Slice and Dice
- (iv) Pivot

(3)

4. (a) Describe the various data mining  
functionalities with examples.

10 Marks (CO3)

OR

- (b) Write short notes on the following :

10 Marks (CO1)

- (i) Data Warehouse Characteristics
  - (ii) OLTP vs. OLAP
5. (a) (i) Discuss the Applications of Data Mining.

(ii) ETL

10 Marks (CO2)

OR

- (b) Why is data preprocessing required ?  
What are the different forms of data  
preprocessing ? Explain in detail.

10 Marks (CO2)

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