H   **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)

<div align="center">OR</div>

(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)

P. T. O.

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

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 Charactetistics

(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)

80