

Enrollment No./Seat No.:

GUJARAT TECHNOLOGICAL UNIVERSITY
M.SC INTEGRATED - SEMESTER - V EXAMINATION - WINTER 2025

Subject Code: 1350503

Date: 19-11-2025

Subject Name: Data Warehouse and Mining

Time: 10:30 AM TO 01:00 PM

Total Marks: 70

Instructions

- 1. Attempt all questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**
- 4. Use of simple calculators and non-programmable scientific calculators are permitted.**

	Marks
Q.1 (a) Define and explain Data warehouse.	03
(b) Explain ELT Architecture	04
(c) What is data mining? Describe the steps involved in data mining when viewed as a process of knowledge discovery.	07
Q.2 (a) Define DBSCAN and STRING.	03
(b) Differentiate between classification and prediction.	04
(c) Discuss major issues in Data Mining.	07
OR	
(c) Explain Logistic regression with example.	07
Q.3 (a) What is Concept Hierarchy?	03
(b) How is a data warehouse different from a database? How are they similar? Explain framework of data warehouse.	04
(c) Draw and explain the data mining architecture.	07
OR	
(a) List the applications of pattern mining.	03
(b) Explain web usage mining	04
(c) What is the purpose of Apriori algorithm? Explain with suitable example.	07
Q.4 (a) What is meant by association rule?	03
(b) Discuss about outliers and its types.	04
(c) Brief on Neural Network prediction method.	07
OR	
(a) Explain web content mining.	03
(b) What are the metrics for evaluating Classifier Performance.	04
(c) What do you meant by Clustering? Explain the requirements used in Clustering?	07

- Q.5 (a)** Explain linear regression in detail. **03**
- (b)** Discuss about hierarchical clustering methods. **04**
- (c)** What is Bayes theorem? Explain the working of Naïve Bayesian Classifier. **07**

OR

- (a)** Explain density based clustering method. **03**
- (b)** Explain knowledge discovery from data(KDD) process. **04**
- (c)** Decision Tree Induction with example. **07**
