

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VI (NEW) EXAMINATION – SUMMER 2022****Subject Code:3160714****Date:08/06/2022****Subject Name:Data 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. Simple and non-programmable scientific calculators are allowed.

		<b>Marks</b>
<b>Q.1</b>	(a) What are the types of data?	<b>03</b>
	(b) Compare descriptive and predictive data mining	<b>04</b>
	(c) Draw and explain the data mining architecture.	<b>07</b>
<b>Q.2</b>	(a) What is dimensionality reduction?	<b>03</b>
	(b) What are the types of concept hierarchies?	<b>04</b>
	(c) What is Data Cleaning? Describe various methods of Data Cleaning.	<b>07</b>
<b>OR</b>		
	(c) Discuss issues to be considered during data integration.	<b>07</b>
<b>Q.3</b>	(a) What is meant by association rule?	<b>03</b>
	(b) How is association rules mined from large databases?	<b>04</b>
	(c) Explain the various criteria for the classification of frequent pattern mining.	<b>07</b>
<b>OR</b>		
<b>Q.3</b>	(a) List two interesting measures for association rules.	<b>03</b>
	(b) What is meant by multidimensional association rules?	<b>04</b>
	(c) Write short notes on Maximal Frequent Item Set & Closed Frequent Item Set.	<b>07</b>
<b>Q.4</b>	(a) What is an outlier?	<b>03</b>
	(b) What is Bayesian theorem?	<b>04</b>
	(c) Demonstrate how Bayesian classification helps in predicting class membership probabilities.	<b>07</b>
<b>OR</b>		
<b>Q.4</b>	(a) Differentiate classification and prediction.	<b>03</b>
	(b) What is the difference between “supervised” and unsupervised” learning scheme.	<b>04</b>
	(c) Explain the issues regarding the classification and prediction.	<b>07</b>
<b>Q.5</b>	(a) What is temporal mining?	<b>03</b>
	(b) Explain web usage mining.	<b>04</b>
	(c) Discuss the K-means clustering algorithm using examples.	<b>07</b>
<b>OR</b>		
<b>Q.5</b>	(a) What is multimedia mining?	<b>03</b>
	(b) Explain web content mining.	<b>04</b>
	(c) What do you meant by Clustering? Explain the requirements used in Clustering?	<b>07</b>

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