

PRAGATI ENGINEERING COLLEGE: SURAMPALEM
(AUTONOMOUS)
III B.Tech I Semester Supplementary Examinations, May - 2024

DATA MINING TECHNIQUES
(Information Technology)

Time: 3 hours

Max. Marks: 70 M

Answer ONE Question from each Unit
 All Questions Carry Equal Marks

Q. No.	Questions	BTL	CO	Marks
UNIT – I				
1.	a) What are the key features of a Data Warehouse?	K2	CO1	7 M
	b) Explain the architecture of Data Warehouse with a neat diagram.	K2	CO1	7 M
OR				
2.	a) Explain data mining as a step-by-step process of knowledge discovery. Mention the Functionalities of Data mining	K2	CO1	7 M
	b) Explain how data cubes are used to model n-dimensional data.	K2	CO1	7 M
UNIT – II				
3.	a) Define Data Visualization & data transformation. Explain with examples.	K2	CO2	7 M
	b) Explain in brief Data Preprocessing.	K2	CO2	7 M
OR				
4.	a) Explain in detail Data Discretization.	K2	CO2	7 M
	b) Describe attribute types with suitable examples.	K2	CO2	7 M
UNIT – III				
5.	Explain Tree Pruning in detail.	K2	CO3	14M
OR				
6.	a) Explain Perception-based classification (PBC) in Visual Mining for Decision Tree Induction.	K2	CO3	7 M
	b) Discuss Scalability and Decision Tree Induction.	K2	CO3	7 M
UNIT – IV				
7.	a) What is Association rule mining? Briefly describe the criteria for classifying association rules.	K3	CO4	7 M
	b) Explain Confident Based Pruning.	K3	CO4	7 M
OR				
8.	Make a comparison of Apriori and FP-Growth algorithms for frequent item set mining in transactional databases. Apply these algorithms to the following data: TID LIST OF ITEMS 1 Bread, Milk, Sugar, Tea Powder, Cheese, Tomato 2 Onion, Tomato, Chilies, Sugar, Milk 3 Milk, Cake, Biscuits, Cheese, Onion 4 Chilies, Potato, Milk, Cake, Sugar, Bread	K3	CO4	14 M

	5	Bread, Jam, Milk, Butter, Chilies			
	6	Butter, Cheese, Paneer, Curd, Milk, Biscuits			
	7	Onion, Paneer, Chilies, Garlic, Milk			
	8	Bread, Jam, Cake, Biscuits, Tomato			
UNIT – V					
9.	a)	Explain the basic K-means algorithm.	K2	CO5	7 M
	b)	What is Cluster Analysis? Explain in brief.	K2	CO5	7 M
OR					
10.	Compare and contrast general characteristics of Partitioning methods, Hierarchical methods, Density-based methods and Grid-based methods.		K2	CO5	14 M