

PRAGATI ENGINEERING COLLEGE: SURAMPALEM
(AUTONOMOUS)
III B.Tech I Semester Supplementary Examinations, May - 2024
DATA WAREHOUSING AND DATA MINING
(Computer Science and Engineering)

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 is data mining? Rephrase the steps in data mining process?	K1	CO1	7 M
	b) Build a neat diagram of data warehouse architecture with explanation?	K4	CO1	7 M
OR				
2.	a) Explain data warehouse architecture and models.	K2	CO1	7 M
	b) Explain the role of concept hierarchies.	K2	CO1	7 M
UNIT – II				
3.	a) Write the smoothing techniques available to remove noise .	K2	CO2	7 M
	b) What are the various data reduction techniques available to remove inconsistent data.	K2	CO2	7 M
OR				
4.	a) Briefly outline how to compute the dissimilarity between objects described by the following: i) Normal attributes ii) Asymmetric binary attributes iii) Numeric attributes iv) Term-Frequency vectors	K3	CO2	7 M
	b) Explain how to handle noisy data .	K2	CO2	7 M
UNIT – III				
5.	a) What are the steps involved in preparing the data for classification?	K1	CO3	7 M
	b) Apply attribute selection measure to construct decision tree with example.	K3	CO3	7 M
OR				
6.	a) Explain the decision tree induction algorithm with appropriate examples. Discuss the disadvantages of this approach? What is over fitting, and how can it be prevented for decision trees?	K2	CO3	7 M
	b) What is visual mining? Explain the application of decision tree induction algorithm in it.	K1	CO3	7 M
UNIT – IV				
7.	a) Discover all frequent item set using Frequent Pattern Growth Algorithm with support of 25% and a confidence of 50%.	K3	CO4	7 M

		T1→B , A , T, T2→A , C, T3→A , S, T4→B , A , C, T5→B , S, T6→A , S, T7→B , S, T8→B , A , S , T, T9→B , A , S			
	b)	Discover the association rules using FP Growth Algorithm for above table .	K3	CO4	7 M
OR					
8.	a)	Explain apriori algorithm with an example for mining frequent item sets.	K2	CO4	7 M
	b)	Explain market basket analysis.	K2	CO4	7 M
UNIT – V					
9.	a)	Define cluster ,Clustering and List different types of Clusters .	K1	CO5	7 M
	b)	Explain about Basic Means of Clustering with example .	K2	CO5	7 M
OR					
10.	a)	Describe k-means clustering algorithms in terms of the following criteria: (i) shapes of clusters that can be determined; (ii) input parameters that must be specified; and (iii) limitations.	K3	CO5	7 M
	b)	What is Cluster Analysis? What are some typical applications of clustering? What are some typical requirements of clustering in data mining?	K1	CO5	7 M