Code No.: AI512PE	R20	H.T.No.			8	R					

CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
III–B.TECH–I–Semester End Examinations (Supply) December 2025
DATA MINING
(CSM)

[Time: 3 Hours] **[Max. Marks: 70]**

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 20 marks. Answer all questions in Part A.
Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks.

PART-A **(20 Marks)**

1.	a)	What are the application areas of data Mining?	[2M]
	b)	Write any two issues with Data Mining.	[2M]
	c)	What is an association? Write a short note about association rule mining.	[2M]
	d)	Write short notes on sequential pattern mining.	[2M]
	e)	"Classification is supervised learning", Justify?	[2M]
	f)	What are over fitted models?	[2M]
	g)	What is Clustering?	[2M]
	h)	List out all partitioning methods for clustering data.	[2M]
	i)	What is the primary challenge in mining data streams?	[2M]
	j)	Differentiate between text mining and web mining.	[2M]

PART-B **(50 Marks)**

2.	Explain in detail about Data mining functionalities.	[10M]
	OR	
3.	Why do we preprocess the data? Discuss about different techniques used to preprocess data.	[10M]
4.	Explain how to mine the multidimensional association rules from relational databases and data warehouses.	[10M]
	OR	
5.	Explain in detail about Graph Pattern Mining.	[10M]
6.	Explain decision tree induction algorithm for classifying data tuples and with suitable examples.	[10M]
	OR	
7.	Discuss in detail about Lazy Learner. How does the Lazy Learner classification work? Explain.	[10M]
8.	What is the goal of clustering? How does partitioning around medoids algorithm achieve this?	[10M]
	OR	
9.	What are outliers? Discuss the methods adopted for outlier detection	[10M]
10.	Explain the concept of spatial clustering and its applications. Provide examples of scenarios where spatial clustering is beneficial.	[10M]
	OR	
11.	Explain text mining. Discuss the challenges and advancements in text mining.	[10M]

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