Code No.: AI512PE

**R20** 

H.T.No.

8 R

## CMR ENGINEERING COLLEGE: : HYDERABAD UGC AUTONOMOUS

## III-B.TECH-I-Semester End Examinations (Supply)-June - 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]

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)
Oata Mining functionalities? [10M]

2. Explain in detail about Data Mining functionalities?

e) "Classification is Supervised Learning", Justify?

f) What are Over Fitted Models?

OR

3. Why do we preprocess the data? Discuss about different techniques used to [10M] preprocess data?

4. Explain how to mine the Multidimensional Association Rules from relational [10M] databases and data warehouses?

OR

5. Explain in detail about Graph Pattern Mining.

[10M]

[10M]

[2M]

[2M]

6. Explain Decision Tree Induction Algorithm for classifying data tuples and with [10M] suitable examples.

OR

7. Discuss in detail about Lazy Learner. How does the Lazy Learner classification work? [10M] Explain.

8. What is the goal of Clustering? How does partitioning around medoids algorithm [10M] achieve this?

OR

9. What are Outliers? Discuss the methods adopted for outlier detection

10. Explain the concept of Spatial Clustering and its applications. Provide examples of [10M] scenarios where Spatial Clustering is beneficial.

OR

11. Explain Text Mining? Discuss the challenges and advancements in Text Mining. [10M]