CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
III–B.TECH–I–Semester End Examinations (Regular) - December- 2025
DATA MINING
(Common for IT, CSD, CSM)

[Time: 3 Hours]   **[Max. Marks: 60]**

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 10 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   **(10 Marks)**

1. a) Define Data Integration.   [1M]
   b) What is Data objects and Attributes types?   [1M]
   c) Explain Market Basket Analysis.   [1M]
   d) What is FP Growth?   [1M]
   e) Define Neural Network.   [1M]
   f) What is the Use of K-Nearest Neighbor Classifier?   [1M]
   g) List out the Clustering methods.   [1M]
   h) List out the types of Outlier analysis.   [1M]
   i) Describe Temporal Mining.   [1M]
   j) Define Pattern Detection.   [1M]

PART-B   **(50 Marks)**

2.   What is Data preprocessing? Explain need for data preprocessing and its techniques.   [10M]

OR

3.   Explain KDD processes in detail.   [10M]

4.   Describe scalable methods for mining Frequent Patterns.   [10M]

OR

5.a) Write the applications and advantages of Market Basket Analysis.   [5M]
  b) Discuss the FP growth algorithm with an example.   [5M]

6.   What are the metrics for evaluating Classifier Performance? Explain. [10M]

OR

7.a) Describe k-Nearest –Neighbor classifier.   [5M]
  b) Illustrate ensemble methods and its applications.   [5M]

8.   Explain about Hierarchical Methods.   [10M]

OR

9.a) Discuss about basic Clustering Methods.   [5M]
  b) Explain density based method of DBSCAN.   [5M]

10. Discuss about Spatial Rules and Classification Algorithm.   [10M]

OR

11. Explain Temporal Mining Modeling and events.   [10M]

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