

**CMR ENGINEERING COLLEGE: : HYDERABAD**  
**UGC AUTONOMOUS**

**III-B.TECH-I-Semester End Examinations (Regular) - December- 2025**  
**DATA MINING**  
**(CSE)**

**[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)**

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|---|------|
| 1. a) What is Discretization?                           | [1M] |
| b) What is data cleaning?                               | [1M] |
| c) Define frequent item set.                            | [1M] |
| d) Define Association Rule.                             | [1M] |
| e) What is a Decision Tree?                             | [1M] |
| f) Define Classification.                               | [1M] |
| g) Differentiate between Classification and Clustering. | [1M] |
| h) What is Outlier Detection?                           | [1M] |
| i) List any two types of Web Mining.                    | [1M] |
| j) What is Episode Rule Discovery in Text Mining?       | [1M] |

**PART-B**

**(50 Marks)**

- |   |       |
|---|-------|
| 2. Explain the KDD process with a neat diagram.   | [10M] |
| <b>OR</b>   |       |
| 3. Explain Data Preprocessing techniques with suitable examples.                              | [10M] |
| 4. Explain the APRIORI algorithm with an example.   | [10M] |
| <b>OR</b>   |       |
| 5. Explain in detail about Closed Frequent Item set With an example.                          | [10M] |
| 6. Compare and Contrast KNN and Decision Tree classifiers.                                    | [10M] |
| <b>OR</b>   |       |
| 7. Discuss various attribute selection measures used in Decision Tree Construction.           | [10M] |
| 8. Explain the K-Means clustering algorithm with a suitable example.                          | [10M] |
| <b>OR</b>   |       |
| 9. Explain the steps involved in Agglomerative Hierarchical Clustering.                       | [10M] |
| 10. Explain the architecture and process of Web Mining with suitable examples.                | [10M] |
| <b>OR</b>   |       |
| 11. Illustrate the challenges and solutions in handling Unstructured Text during Text Mining. | [10M] |

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