

U.S.N.								
--------	--	--	--	--	--	--	--	--

B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

August 2024 Supplementary Examinations

Programme: B.E.

Branch: Artificial Intelligence and Machine Learning

Course Code: 22AM5PEKDI

Course: Knowledge Discovery

Semester: V

Duration: 3 hrs.

Max Marks: 100

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

UNIT - I

1	a) Define data mining. Elaborate on data mining functions that can be used for mining patterns.	10
	b) Illustrate Multitier architecture of data warehouse in detail.	10

UNIT - II

2	a) Illustrate a recommended approach for Data Warehouse Development.	8
	b) Draw Star schema and fact constellation schema for sales data warehouse.	12

OR

3	a) Define measures and dimensions with example. Elucidate categories of measures in detail.	10
	b) Draw a snowflake schema diagram for the University data warehouse consist of the following four dimensions: student, course, semester, and instructor, and two measures count and avg_grade.	10

UNIT - III

4	a) Interpret the Frequent Pattern growth algorithm for discovering frequent item sets without candidate generation.	10
	b) Justify the Apriori algorithm with help of various steps for discovering frequent item set with an example.	10

OR

5	a) Analyze the issues of the Apriori algorithm, Deduce the algorithm to solve the issue.	10
	b) Define vertical and horizontal data format. Differentiate vertical and horizontal data format with an example for each.	10

Important Note: Completing your answers compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.

UNIT - IV

6 a) Explain the working of the K-means partitioning algorithm with a neat diagram and an example. **10**

b) Elaborate on DBSCAN algorithm of clustering approach. **10**

UNIT - V

7 a) Depict the other data mining methodology in detail. **10**

b) Elucidate about Apriori-like Subspace Clustering Method in detail . **10**

SUPPLEMENTARY EXAMS 2024