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PRESIDENCY UNIVERSITY

BENGALURU

Mid - Term Examinations – October 2025

Date: 09-10-2025

Time: 09.30am to 11.00am

School: SOCSE	Program: B.Tech	
Course Code : CSE3512	Course Name: Data Mining	
Semester: V	Max Marks: 50	Weightage: 25%

CO - Levels	CO1	CO2	CO3	CO4	CO5
Marks	26	24			

Instructions:

- (i) Read all questions carefully and answer accordingly.
- (ii) Do not write anything on the question paper other than roll number.

Part A

Answer ALL the Questions. Each question carries 2marks.

5Q x 2M=10M

1	Define the Preprocessing with an example.	2 Marks	L1	CO1
2	List the reduction techniques.	2 Marks	L1	CO1
3	Explain about Data cube.	2 Marks	L2	CO2
4	Explain the relationship between covariance and correlation coefficient.	2 Marks	L2	CO2
5	Define Data Integration.	2 Marks	L1	CO2

Part B

Answer the Questions.

Total Marks 40M

6.	a.	Explain about knowledge discovery in database process with a neat diagram.	10 Marks	L2	CO 1
Or					
7.	a.	Explain functionalities of data mining in detail with suitable example.	10 Marks	L2	CO 1
8.	a.	With suitable examples, Demonstrate different types of data and challenges in ensuring data quality.	10 Marks	L2	CO 1
Or					
9.	a.	Demonstrate major issues of Data Mining with respect to society.	10 Marks	L2	CO 1
10.	a.	Explain types of attributes and their properties with suitable example.	10 Marks	L2	CO 2
Or					
11.	a.	Explain Data reduction, define Attribute Subset Selection on {A1, A2, A3, A4, A5, A6} given data sets.	10 Marks	L2	CO 2
12.	a.	Apply entropy based discretization on the given set $S = (4,y), (0,y), (16,n), (12,y), (16,n), (18,y), (26,n), (24,n), (28,n)$. If S has partitioned into 2 intervals S_1 & S_2 with 2 possible split points 14 & 21. Find the Best split point.	10 Marks	L3	CO 2
Or					
13.	a.	Suppose that the minimum and maximum values for the attribute income are \$12,000 and \$98,000, respectively. We would like to map income to the range [0.0,1.0]. By min-max normalization, a value of \$73,600 for income is transformed apply the normalization. i. Min-Max ii. Z-Score iii. Decimal Scaling	10 Marks	L3	CO 2