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**Presidency University**

**Bengaluru**

**SCHOOL OF ENGINEERING**

**MAKE-UP EXAMINATION – SEP 2023**

**Course Code**: CSE307

**Course Name**: DATA MINING

**Program** : CSE

**Date**: 03.10.2023

**Time**: 9:30am to 12:30pm

**Max Marks**: 100

**Weightage**:50%

**Instructions:**

1. *Read the all questions carefully and answer accordingly.*

**Part A [Memory Recall Questions]**

**Answer all the Questions. Each question carries 4 marks. (4Qx 5M= 20M)**

1. Explain Datamining Steps in KDD (C.O.No.1) [Knowledge]

2. Explain OLAP (C.O.No.1) [Knowledge]

3. Define the following a) Decision Tree based methods b) Density based Methods

(C.O.No.3) [Knowledge]

4. Write the flowchart and explain the concept of Apriori algorithm (C.O.No.3) [Knowledge]

**Part B [Thought Provoking Questions]**

**Answer all the Questions. Each question carries 10 marks. (4Qx10M=40M)**

5. Differentiate Between OLTP and OLAP (C.O.No.2) [Comprehension]

6. Describe major tasks in Data Preprocessing. (C.O.No.2) [Comprehension]

7. If it walks like a duck, quacks like a duck , then its probably a duck. Explain briefly which classifier technique has the basic idea of the same. (C.O.No.4) [Comprehension]

8. Explain the concept of Clustering. Briefly describe K-Means clustering algorithm.

(C.O.No.4) [Comprehension]

**Part C [Problem Solving Questions]**

**Answer all the Questions. Each question carries 20 marks. (2Qx20M=40M)**

9.Given a problem of Sample S=(0,y),(4,y),(12,y),(16,y),(16,N), (18,y),(24,N),(26,N), and (28,N)

If S has to be partitioned into two intervals S1 and S2 using 2 possible split points 14 and 21. Find the best split and Normalize, 200,300,400,600,100 using, min max normalization and z-score normalization (C.O.No. 2) [Application]

10. Identify the strong association rules from the following transaction database with minimum support of 50% and minimum confidence of 75% and minimum support count is 3

|  |  |
| --- | --- |
| Transaction ID | Items |
| 100 | Bread, Cheese, Eggs, Juice |
| 200 | Bread, Cheese, Juice |
| 300 | Bread, Milk, Yogurt |
| 400 | Bread, Juice, Milk |
| 500 | Cheese, Juice, Milk |

(C.O.No. 3) [Application]