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## Department of Research & Development Mid - Term Examinations - SEPTEMBER 2024

<b>Odd Semester</b> : Ph.D. Course Work	Date: 30/09/2024
Course Code: CSE898	<b>Time</b> : 2:00pm – 3:30pm
Course Name: Machine Learning Algorithms	Max Marks: 50
Department: CSE	Weightage: 25%

## **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 5 marks. 40		
1	What is 'training Set' and 'test Set' in a Machine Learning Model? How Much Data Will You Allocate for Your Training, Validation, and Test Sets? (CO:01 BL:02)	5 Marks
2	Discuss Cross validation. Why is cross validation important in analyzing data sets? (CO: 01 BL: 02)	5 Marks
3	How to evaluate the clustering performance on the ground truth. (CO: 02 BL: 02)	5 Marks
4	How DBSCAN algorithm works? Compare DBSCAN with K-Means. (CO: 02 BL: 03)	5 Marks

## Part B

Answer ALL Questions. Each question carries 15 marks. 2Q2		
5	How normalization will play a major role in Machine Learning. Write the categories of Normalization. (CO: 01 BL: 02)	15 Marks
6	Explain K-Nearest Neighbors (KNN) with the example. (CO: 02 BL: 02)	15 Marks