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**Presidency University**

**Bengaluru**

**Ph.D. Course Work End Term Examinations – JAN-FEB 2025**

**Date**: 30-01-2025

**Time**: 09:30 AM-12.30 PM

**Max Marks**: 100

**Weightage**: 50%

**Semester**:

**Course Code**: MAT843

**Course Name**: Machine Learning and Deep Learning

**School:** SOE

**Instructions:**

1. *Read the all questions carefully and answer accordingly.*
2. *Do not write any matter on the question paper other than roll number.*

**PART A**

**Answer all the Questions. Each question carries 10 marks. (6Qx 10M= 60M)**

1. What are the classifications of Machine Learning.? Discuss in detail. (C.O.NO. 1) [Comprehension])
2. Describe the dimensionality reduction techniques.

(C.O.NO. 1) [Comprehension])

1. Differentiate between supervised and unsupervised learning. (C.O.NO. 2) [Comprehension])
2. Differentiate between Regression Algorithm and Classification Algorithm. (C.O.NO. 3) [Comprehension])
3. Describe the commonly used methods for generating multiple training-validation sets from given dataset. (C.O.NO. 2) [Comprehension])
4. What are the different types of regression models? Explain each of them briefly. (C.O.NO. 4) [Comprehension])

**PART B**

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

1. How does a convolutional neural network work better with image data. Explain in detail.

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

1. Write the algorithm for handling missing attributes.

(C.O.NO. 4) [Application])