Roll No												

PRESIDENCY UNIVERSITY
BENGALURU

Department of Research & Development

Mid - Term Examinations - SEPTEMBER 2024

Odd Semester: Ph.D. Course Work
Course Code: ECE849
Course Name: PREDICTIVE ANALYTICS
Department: ECE

Date: 28/09/2024
Time: 10:00am – 11:30am
Max Marks: 50
Weightage: 25%

Instructions:

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

PART A (THOUGHT PROVOKING)

Answer ANY 4 Questions. Each question carries 5 marks. (4Qx 5M= 20M)

1. There are many hypothesis in machine learning. Explain any two types of Hypothesis in Machine Learning suitable for satellite image processing

2. One of the objectives of your thesis is to classify water and non-water bodies. Explain how yiu are going to achieve this using any classification Algorithm in Machine Learning

3. Quality data is utmost important in any prediction. Describe Data and brief about MDL Principle w.r.t to selection of data

4. KNN is a basic, simple and accurate machine learning algorithm. Bring out how you can use KNN algorithm in image processing.

5. Explain any two types of Hypothesis in Machine Learning

PART B (PROBLEM SOLVING)

Answer all the Questions. Each question carries 10 marks. (3Qx 10M= 30M)

6. Mr. X wants to design a learning system to predict the rain condition today. Explain the process of designing the same with necessary assumptions.

7. There are two types of prediction types. Classification and regression. Explain the situation for using these types. What is Regression? Explain it's relevance in Bayes' Theorem

8. What is Reinforcement Learning? Explain the same taking an example of predicting the vegetation of this year taking previous year's vegetation coverage of Bangalore city.