QP CODE: 24803617

24803617

Reg No : .....

Name : .....

INTEGRATED MSC DEGREE EXAMINATION, JUNE 2024

Fifth Semester

CORE - ICSC5CR1 - PRINCIPLES OF MACHINE LEARNING

INTEGRATED MSC COMPUTER SCIENCE-ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING & INTEGRATED MSC COMPUTER SCIENCE-DATA SCIENCE

2020 Admission Onwards

7C3639E7

Time: 3 Hours Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

*Weight **1** each.*

1. What are the steps in designing a machine learning problem?
2. Why Machine Learning is Important?
3. Define Underfitting.
4. Define Precision.
5. What are the Advantages and Disadvantage of using Bayesian Linear Regression?
6. What is multiple linear regression?
7. In logistic regression, what is the goal ?
8. What is the difference between single and multiple logistic regression?
9. Explain different types of Naïve Bayes Model.
10. Explain structure of Biological neural network.

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

*Weight **2** each.*

11. Write short note on Descriptive Model.
12. Explain the need of feature engineering in ML.
13. Explain Linear Regression as Supervised Machine Learning.

14. Explain ridge regression.

15. Explain the Assumptions for Logistic Regression:

16. Explain logistic regression with any real-life example.

17. What is hyperplane and support vectors in SVM?

18. What are the advantages and diadvantages of Naïve Bayes' classifier algorithm?

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

*Weight **5** each.*

19. Describe in detail about the Logistic Models with Categorical Predictors.

20. Explain the Naïve Bayes' Algorithm in detail.

21. What is Artificial neural network? Explain different types of ANN.

22. Explain Perceptron and Learning theory with detailed steps and algorithm.

(2×5=10 weightage)