SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN (AUTONOMOUS) (Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC) Chromepet, Chennai — 600 044. M.Sc. - END SEMESTER EXAMINATIONS NOVEMBER - 2022 SEMESTER - I

20PCSET1001 - Introduction to Machine Learning

Total Duration : 2 Hrs 30 Mins.

Total Marks : 60

Section A

Answer any **SIX** questions $(6 \times 5 = 30 \text{ Marks})$

- 1. What is Machine Learning, Explain its Applications?
- 2. Describe Multivariate Regression.
- 3. Classify the Reduction Methods.
- 4. Explain Decision Trees in detail.
- 5. Elaborate on Estimator Bias and Variance.
- 6. Discuss the Multivariate Methods.
- 7. Describe about Linear Discriminant Analysis.
- 8. Distinguish: Multiple Input and Multiple Output Channels.

Section B

Part A

Answer any **TWO** questions $(2 \times 10 = 20 \text{ Marks})$

- 9. Explain the Bayesian Decision Theory.
- 10. Classify:Parametric Methods.
- 11. Differentiate between Classification and Clustering.
- 12. Compare and Contrast between different dimensionality reduction methods.

Part B

Compulsory question $(1 \times 10 = 10 \text{ Marks})$

13. Justify Back propagation Algorithm with example.
