

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.(Bio-Statistics) END SEMESTER EXAMINATIONS NOVEMBER - 2023

SEMESTER - III

**20PBSCT3010 - Machine Learning Techniques**

Total Duration : 2 Hrs. 30 Mins.

Total Marks : 60

### Section B

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

1. Classify the different types of learning.
2. Explain Navi Bayes Classifier.
3. Write anote on Q- Function and Q- Learning Algorithm.
4. Sketch the support and Confidence in Association rule mining.
5. Describe MLP. Explain why a backpropagation algorithm is required.
6. Prepare a note on the Bayesian Belief network.
7. Give suitable illustrations for the following terms given below:  
a) Estimation b) Error c) Variance d) Bias
8. Explain the aspects of inference relating to the evaluation of the association pattern.

### Section C

I - Answer any **TWO** questions ( $2 \times 10 = 20$  Marks)

9. Explain the following:  
a) Learning Model b) Geometric Model c) Probabilistic Model d) Logic Model
10. Why SVM classifiers have improved classification over linear ones? Discuss Hyperplane in SVM.
11. Distinguish between Bagging, Boosting, and Voting.
12. Write a critical note on the types of Reinforcement Learning.

II - Compulsory question ( $1 \times 10 = 10$  Marks)

13. Examine in detail Aprior Algorithm.

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