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 APRIL - 2022
SEMESTER - I
20PCSET1001 - Introduction to Machine Learning

Total Duration : 3 Hrs.   **Total Marks : 60**

Section A

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

1. Discuss about learning a class from examples.

2. Discuss in detail about association rules.

3. Which is the most frequently used for modelling class-conditional input densities with numeric input? Discuss.

4. Discuss about tuning model complexity.

5. Write a short note on subset selection.

6. Explain the various ways of choosing the number of clusters.

7. Discuss about rule extraction from trees.

8. Discuss about training a perceptrons.

Section B

Part A

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

9. Write a short note on: a) Losses and Risks b) Classification

10. Explain about k-means clustering.

11. What are the various smoothing models and how to choose the smoothing parameter?

12. Explain about optimal separating hyperplane.

Part B

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

13. Explain about multivariate classification and regression.

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