

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. Biostatistics - END SEMESTER EXAMINATIONS APRIL - 2024

SEMESTER - IV

**20PBSET4004 - Forecasting and Decision Making Techniques**

Total Duration : 2 Hrs. 30 Mins.

Total Marks : 60

### Section B

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

1. Prepare a note on the different methods of forecasting techniques.
2. Explain the exponential smoothing method.
3. Illustrate the Box-Jenkins method.
4. Discuss the steps involved in the decision-making process.
5. Describe in brief the moving average method for ascertaining the trend.
6. Explain forecasting based on the adaptive smoothing method.
7. Sketch the general steps to configure an ARIMA model.
8. Infer the importance of decision trees in decision analysis.

### Section C

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

9. Describe the different forecast error measurements studied.
10. Explain the Navie forecasting method.
11. Differentiate between winter's smoothing model and Holt's model.
12. Prepare a note on  
a) Auto Regressive    b) ARMA    c) ARIMA

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

13. Evaluate with suitable examples the maximin, the minimax and the regret criteria in decision making.

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