

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.(BioStats) - END SEMESTER EXAMINATIONS APRIL - 2023

SEMESTER - II

**21PBSCT2005 - Applied Regression Analysis**

Total Duration : 2 Hrs. 30 Mins.

Total Marks : 60

### Section B

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

1. Illustrate estimation of model parameter.
2. Classify the estimation of the parameters of Multiple Regression by the Methods of Least Square.
3. Classify the Methods of Multi-collinearity.
4. Describe the necessity and the reasons for transforming data.
5. Explain the procedure for determining outliers.
6. Illustrate deducting hidden interpolation.
7. Explain weighted least squares.
8. Determine the facts of Ridge Regression.

### Section C

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

9. Discuss testing of hypotheses on slope and intercept with an illustration.
10. Classify the variable selection by Forward Selection procedure and Backward Elimination procedure.
11. Explain Gauss Markov set up and its assumptions in detail.
12. Draw conclusion about the Non-parametric Regression Model.

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

13. Briefly classify the Analytical Methods for selecting a transformation of Generalized Least squares.

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