

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.

B.Sc. END SEMESTER EXAMINATIONS APRIL-2022

SEMESTER - VI

13USTCT6015 & UST/CT/6015 - Regression Analysis

Total Duration : 3 Hrs.

Total Marks : 60

Section A

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

1. List out any five properties of Multiple Correlation Coefficient.
2. Write a short note on predicted values and Standard Errors.
3. Analyse the Effect of Outliers in Simple linear regression model.
4. State the properties of Least Square Estimators.
5. State the assumptions of explanatory variables.
6. Mention transformations to stabilize variance when the response variable follows
i) Poisson ii) Binomial iii) Negative Binomial
7. Write a short note on analysis of residuals.
8. Derive a relation between multiple and partial correlation coefficient.

Section B

Answer any **THREE** questions ($3 \times 10 = 30$ Marks)

9. Derive the Coefficient of Partial Correlation.
10. Obtain the parameters of β_0 and β_1 in Simple linear regression model.
11. How to achieve linearity in transformation of variables?
12. Estimate the least square parameters of Multiple linear regression model.
13. Explain briefly about Generalized Linear Model
