B.Sc DEGREE EXAMINATION, EVEN SEMESTER 2021
III Year VI Semester
Regression Analysis

Max.marks :25

Answer any **FIVE** questions $(5 \times 5 = 25)$ Marks

1. State the properties of Multiple correlation coefficient
2. Show that $1\text{-}R^2_{1.23} =$(1-r^2_{12})$(1 - r^2_{13.2})$
3. For the simple linear regression model $Y = \beta_0 + \beta_1$ X$+\epsilon$, derive the least square estimators β_0 and β_1.
4. Explain the characteristics of residuals in regression analysis
5. Discuss the transformations used to achieve linearity in the regression model
6. Explain the properties of least square estimators in multiple linear regression model
7. Discuss the procedure involved in testing the subset of regression coefficients equal to zero