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**School of Liberal Education**

Bachelor of Arts Honours in Economics

Semester End Examination - May 2024

Duration : 180 Minutes

Max Marks : 100

**Sem VI - K1UB604B - Econometrics-II**General Instructions*Answer to the specific question asked**Draw neat, labelled diagrams wherever necessary**Approved data hand books are allowed subject to verification by the Invigilator*

- 1) What is the interpretation of multiple regression equation. K1 (2)
- 2) Show the Derivation of the formula of  $\beta_1$ . K2 (4)
- 3) Shed light on the Normality Assumption of  $u_i$ . K2 (6)
- 4) Compare the variance of  $\beta_2$  and  $r^2$  formula in the changed scale and unit of measurement with respect to the original OLS estimators. K3 (9)
- 5) Compare the  $\beta_1$  and  $\beta_2$  formula in the changed scale and unit of measurement with respect to the original OLS estimators. K3 (9)
- 6) Using any hypothetical data of X and Y with 10 observation, calculate the variance of  $\beta_1$ . K5 (10)
- 7) Using any hypothetical data of X and Y, calculate the values of  $\beta_1$  and  $\beta_2$ . K4 (12)
- 8) Illustrate the Goldfeld–Quandt Test and Breusch–Pagan–Godfrey Test of detecting heteroscedasticity. K5 (15)
- 9) Illustrate in details about the remedial measures of multicollinairty. K5 (15)
- 10) Illustrate the detection of Multicollinearity. K6 (18)