

**SIXTH SEMESTER BA DEGREE EXAMINATION, APRIL 2024****(Regular/Improvement/Supplementary)****ECONOMICS****GECO6E01T: BASIC ECONOMETRICS****Time: 2 Hours****Maximum Marks: 60****SECTION A: Answer the following questions. Each carries *two* marks.****(Ceiling 20 Marks)**

1. What is Dummy variable?
2. Explain the meaning and scope of Econometrics.
3. What are the sources of Autocorrelation?
4. What are the important steps involved in hypothesis testing?
5. Define Linear in parameter.
6. Discuss the different approaches to estimating nonlinear regression models.
7. Write down the basic form of Three variable regression model.
8. What are the desirable properties of good econometric model?
9. Define log-linear regression model.
10. What is the classic symptom of Multicollinearity?
11. Distinguish between Type I error and Type II error.
12. What do you mean by Homoscedasticity?

**SECTION B: Answer the following questions. Each carries *five* marks.****(Ceiling 30 Marks)**

13. Prove that the OLS estimators of the parameters of a Single Linear Regression model are best, linear, and unbiased estimator (BLUE).
14. Discuss the inter-relationship among Economic theory, Mathematical economics, Statistics, and Econometrics.
15. What do you understand by 'Multiple Coefficient of Determination'?
16. Explain the various functional forms of regression models.
17. What are the detection methods of Heteroscedasticity?
18. Describe the methodology involved in Econometric research.
19. Explain the consequences of Multicollinearity problem.

**SECTION C: Answer any *one* question. Each carries *ten* marks.**

20. Explain the meaning of the term Autocorrelation. Describe Durbin -Watson's procedure for estimating the parameters of a linear model with autocorrelated disturbances.
21. Discuss the basic assumptions of Classical Linear Regression Model and explain the estimation procedure of OLS.

**(1 x 10 = 10 Marks)**