B.A. DEGREE EXAMINATION,APRIL 2019
III Year VI Semester
Introduction to Econometrics

Time : 3 Hours **Max.marks :75**

Section A $(10 \times 2 = 20)$ Marks

Answer any **TEN** questions

1. Define Econometrics.
2. Bring out the scope of Econometrics.
3. State the principle of Least squares method.
4. What is Population regression function?
5. Define R^2.
6. What is a multiple regression model?
7. What is Autocorrelation?
8. What are the consequences of Autocorrelation?
9. What is meant by Heteroscedasticity?
10. State the reasons for inclusion of random variable.
11. Define confidence intervals.
12. Explain the term Multi-collinearity.

Section B $(5 \times 5 = 25)$ Marks

Answer any **FIVE** questions

13. State the definitions and goals of Econometrics.
14. Estimate $Y_i = \alpha + \beta X_i + U_i$

Y	10	8	5	12	7	6
X	12	9	8	15	8	8

15. Explain the assumptions of classical linear regression model.
16. Write notes on R^2 and adjusted R^2.
17. Derive the estimators for a multiple regression model.
18. What are the theoretical and practical consequences of Multi-collinearity?
19. Explain the methods used to remove Autocorrelation?

Section C $(3 \times 10 = 30)$ Marks

Answer any **THREE** questions

20. Outline the methodology of Econometrics.
21. Prove that OLS estimators are BLUE.
22. For the given data

Family Expenditure (Y)	7	9	8	11	5	4	8	10	9	10
Income (X)	20	30	33	40	15	13	26	38	35	43

    i Estimate regression model of $Y = \beta_1 + \beta_{2x} + u$

    ii Compute the standard error and t-values and interpret the significance of coefficients.

    iii Compute R^2 and interpret it.

23. What are the tests to detect Autocorrelation?
24. Explain the tests for detecting Heteroscedasticity.

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