D 131729 **(Pages : 4)** **Name.....**

Reg. No.....

THIRD SEMESTER M.A. DEGREE [REGULAR/SUPPLEMENTARY] EXAMINATION, NOVEMBER 2025

(CBCSS)

Economics

ECO 3C 11—BASIC ECONOMETRICS

(2019 Admission onwards)

Time : Three Hours Maximum : 30 Weightage

Part A (Multiple Choice Questions)

Answer all **fifteen** *questions.*

1. The variance of the error term, given the explanatory variables, is constant, known as :

   (a) Auto correlation. (b) Homoskedasticity.

   (c) Heteroskedasticity. (d) Multicollinearity.

2. Specification bias means :

   (a) The bias that arises from including an irrelevant variable in a model.

   (b) The bias that arises from excluding a relevant variable in a model.

   (c) The bias arises when disturbances in the production relation affect the observed values of all variables.

   (d) Both (a) and (b).

3. Linear function indicates that :

   (a) Whose slope is not constant. (b) Whose slope is constant.

   (c) Both (a) and (b). (d) None of the above.

4. ———— is a test for autocorrelation ?

   (a) White Test. (b) Durbin-Watson (DW) Statistic.

   (c) Dickey-Fuller (DF) Test. (d) Heckit Method.

Turn over

5. The numerical value taken on by an estimator for a particular sample of data :

   (a) Estimate. (b) Estimator.

   (c) Error value. (d) None of the above.

6. Which among the following is a measure of goodness-of-fit in multiple regression analysis ?

   (a) R - Squared.

   (b) Autocorrelation.

   (c) Co-efficient of Determination.

   (d) Adjusted R - Squared.

7. In Multiple Regression model, the partial effect of one explanatory variable depends on the value of a different explanatory variable is :

   (a) Interaction Effect.

   (b) Intercept shift.

   (c) Langrange Multiplier Statistic.

   (d) Intercept Parameter.

8. A common measure of spread in the distribution of a random variable is called :

   (a) Covariance. (b) Standard Deviation.

   (c) Mean. (d) Median.

9. The smallest significance level at which the null hypothesis can be rejected is called :

   (a) *p*-value. (b) *t*-value.

   (c) Z-value. (d) F-value.

10. A probability distribution commonly used in statistics and econometrics for modelling a population is known as :

    (a) Normal distribution. (b) Poisson Distribution.

    (c) Binomial distribution. (d) None of the above.

11. A test for heteroskedasticity include :

(a) White Test. (b) Durbin-Watson (DW) Statistic.

(c) Dickey-Fuller (DF) Test. (d) All the above.

12. Rejecting the null hypothesis when it is true is called :

(a) Type I Error. (b) Type II Error.

(c) Trending Process. (d) Both (a) and (b).

13. A test against a two - sided alternative is known as :

(a) *t* test. (b) Two tailed test.

(c) Normality Test. (d) R square.

14. A variable whose outcome is uncertain is :

(a) Predictor variable. (b) Proxy variable.

(c) Dummy variable. (d) Random variable.

15. In multiple regression, one independent variable is an exact linear function of one or more other independent variables is known as :

(a) Imperfect Collinearity. (b) No collinearity.

(c) Auto correlation. (d) Perfect Collinearity.

(15 × 1/5 = 3 weightage)

Part B (Very Short Answer Questions)

Answer any **five** *questions out of eight questions.*

16. Define applied econometrics.

17. What do you mean by OLS ?

18. Define time series data.

19. Define parameter.

20. Define dummy variable.

Turn over

21. What do you mean by RESET ?

22. Define disturbance term.

23. Define homoscedasticity.

(5 × 1 = 5 weightage)

Part C (Short Answer Questions)

Answer any **seven** *questions out of ten questions.*

24. Briefly discuss the normality assumption.

25. Distinguish between population regression function and sample regression function.

26. Explain the significance of stochastic error term.

27. Write a short note on Chow test.

28. Describe log - log model.

29. Explain the dummy variable trap.

30. Describe ANOVA model.

31. Write a brief note on hypothesis testing.

32. Explain the nature and consequences of multicollinearity.

33. What are the tests available for autocorrelation ? Explain.

(7 × 2 = 14 weightage)

Part D (Essay Questions)

Answer any **two** *questions out of four questions.*

34. Discuss the Gauss Markov theorem. Give proof for OLS estimators are BLUE.

35. Explain the multiple co-efficients of R^2 and adjusted R^2.

36. Briefly discuss the logit model.

37. Elaborate the nature, consequences and remedial measures of heteroscedasticity.

(2 × 4 = 8 weightage)