

D 131729

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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)