D 30890 (Pages : 4) Name.....

Reg. No.....

THIRD SEMESTER M.A. DEGREE (REGULAR/SUPPLEMENTARY) EXAMINATION, NOVEMBER 2022

(CBCSS)

(November 2021 Session for SDE/Private Students)

Economics

ECO 3C 11—BASIC ECONOMETRICS

(2019 Admission onwards)

Time : Three Hours Maximum : 30 Weightage

Part A (Multiple Choice Questions)

Answer **all** *questions.*

Each bunch of five questions carries a weightage of 1.

1. A Non- linear function has :
   a) Varying slope and constant elasticity.
   b) Varying slope and varying elasticity.
   c) Constant slope and constant elasticity.
   d) Constant slope and varying elasticity.
2. In a log linear regression model, the co-efficients represent
   a) Slope. b) Elasticity.
   c) Both a) and b). d) Cannot say.
3. The researcher is expected to :
   a) Do not reject a null hypothesis. b) Reject a Null hypothesis
   c) Either of these. d) None of the above
4. Auto correlation occurs due to :
   a) Cobb-Web phenomenon. b) Inertia.
   c) Specification Bias. d) All of the above.

Turn over

5. What is the value of R^2. Given, ESS = 15 and TSS = 30 :

   a) 2.
   b) 15.
   c) 45.
   d) 1/2.

6. Test for detecting heteroscedasticity :

   a) Park test.
   b) Goldfield Quandt test.
   c) Spearman's Rank Correlation test.
   d) All of the above.

7. The value of DW, lies between :

   a) 2-4.
   b) 0-2.
   c) 0-4.
   d) 1-4.

8. What is the expansion of BLUE :

   a) Best Large Unbiased Estimator.
   b) Best Linear Unbiased Estimate.
   c) Bharat Lottery Union Enterprise.
   d) Business Logistic Union Enterprise.

9. Dropping variables is a solution remedy for :

   a) Heteroscedasticity.
   b) Auto Correlation.
   c) Multicollinearity.
   d) None of the above.

10. Degree of freedom refers to :

   a) Number of observations minus number of constraints.
   b) Number of observations plus number of constraints.
   c) Number of constraints minus number of observations.
   d) None of the above.

11. Linearity in regression implies :

   a) Linear in parameters.
   b) Linear in parameters and linear in variables.
   c) Linear in parameters and either linear or non-linear in variables.
   d) Non- Linear in parameters and linear in variables.

12. In a normal distribution :

a) Mean = Median < Mode. b) Mean = Median > Mode.

c) Mean = Median = Mode. d) Mean > Median < Mode.

13. In logit model as Pi goes from 0 to 1, logit (L) varies from :

a) 0 to $+\infty$. b) $-\infty$ to $+\infty$.

c) 0 to 1. d) $-\infty$ to 0.

14. The null hypothesis that all slope coefficients are simultaneously equal to zero is tested in logit model by :

a) F-test. b) T-test.

c) Chi-square test. d) Likelihood ratio statistic.

15. Under the least square procedure, larger the u_i, (in absolute terms), the larger the

a) Intercept. b) Slope.

c) Squared sum of residuals. d) t-ratio.

(15 × 1/5 = 3 weightage)

Part B (Very Short Answer Questions)

Answer any **five** *questions.*
Each question carries a weightage of 1.

16. Define standard error.
17. Explain stochastic disturbance term.
18. Explain p-value.
19. What is Chow test used for ?
20. Describe LPM model.
21. Explain Autocorrelation.
22. What is Dummy variable trap ?
23. What is homoscedasticity ?

(5 × 1 = 5 weightage)

Turn over

Part C (Short Answer Questions)

Answer any **seven** *questions.*
Each question carries a weightage of 2.

24. Explain logit and probit models.
25. Distinguish between SRF and PRF.
26. Explain how would you assess Goodness of fit.
27. State the assumptions of CLRM.
28. What is multicollinearity ? Suggest any two remedial methods.
29. What are loglinear models ? How is elasticity estimated through loglinear models ?
30. Discuss the various steps in Econometric methodology.
31. Explain the essentials of hypothesis testing in econometrics.
32. Explain Breush-Pagan test
33. Describe the different types of data used for econometric analysis.

(7 × 2 = 14 weightage)

Part D (Essay type questions)

Answer any **two** *questions.*
Each question carries a weightage of 4.

34. What is regression analysis ? Derive the parameters of a simple linear regression model using OLS method
35. Explain autocorrelation. What are its sources and detection method ?
36. Critically evaluate the qualitative response regression models.
37. Discuss the dummy variable regression model.

(2 × 4 = 8 weightage)