Reg. No. : ....

Name : ....

Second Semester M.A. Degree (CBSS – Supple. (One Time Mercy Chance)/Imp.) Examination, April 2024
(2014 to 2022 Admissions)
ECONOMICS/APPLIED ECONOMICS/DEVELOPMENT ECONOMICS
ECO2C09 : Basic Econometrics

Time : 3 Hours

Max. Marks : 60

PART – A

Answer **all** questions. **All** questions carry **equal** marks.

1. Identify the correct statement/s related to Durbin Watson statistic.
   A) The Durbin Watson statistic is a test for autocorrelation in the residuals from a statistical regression analysis.
   B) The Durbin Watson statistic will always have a value between 1 and 4.
   C) A value of 1 means that there is no autocorrelation detected in the sample.
   D) All of the above

2. _____ justifies normality assumption in OLS regression.
   A) Taylor's theorem
   B) Central limit
   C) Gauss Markov theorem
   D) Kruskal's theorem

3. The CLRM assumes
   A) Multivariate normality
   B) No or little multicollinearity
   C) No autocorrelation
   D) All of the above

4. The term 'Econometrics' was coined by
   A) Ragnar Frisch
   B) Jan Tinbergen
   C) Karl Pearson
   D) David Gilberman

P.T.O.

5. Which among the following measures the goodness of fit ?
   A) d statistic
   B) p value
   C) R square
   D) Standard deviation

6. Heteroscedasticity is related to
   A) Chow test
   B) Breusch-Godfrey test
   C) Goldfeld-Quandt test
   D) Jarque-Bera test

7. When all the equations are exactly identified, one can use the method of
   A) ILS
   B) OLS
   C) GLS
   D) 2SLS

8. The term 'u' in an econometric model is usually referred to as
   A) Parameter
   B) Disturbance term
   C) Random variable
   D) Dependent variable

   (8×½=4)

PART – B

Answer **any eight** questions. **Each** question carries **2** marks. **No** answer should exceed **one** page.

9. Differentiate between slope and intercept.
10. What are the causes for multicollinearity ?
11. Distinguish between PRF and SRF.
12. What do you mean by econometric method of forecasting ?
13. What is meant by analysis of variance ?
14. Write down the general form of a linear regression model and interpret.
15. Define repressor.
16. What is the purpose of Park test ?
17. What do you mean by test of significance ?
18. Prepare a note on the scope of Econometrics.
19. State the functions of a random variable.

    (8×2=16)

PART – C

Answer **any four** questions. **Each** question carries **5** marks. **No** answer should exceed **2.5** pages.

20. Define Heteroscedasticity. Explain the consequences of Heteroscedasticity. Point out the methods of its detection.
21. What is meant by identification problem in econometrics ? State the rules of identification.
22. Describe the functional forms of regression models.
23. Explain meaning and significance of error term in econometrics.
24. Explain Hausman specification test of endogeneity.
25. Describe the methods of Generalized Least Squares estimation. (4×5=20)

PART – D

Answer **any two** questions. **Each** question carries **10** marks. **No** answer should exceed **6** pages.

26. Discuss the meaning and causes of autocorrelation. Explain Durbin Watson statistic as a test of autocorrelation.
27. Define Econometrics. Describe the methodology of Econometrics.
28. What are simultaneous equations models ? Distinguish between ILS and 2SLS and discuss their features.
29. Explain Ordinary Least Squares method. State and prove the properties of an OLS estimator. (2×10=20)