Reg. No. : ....

Name : ....

II Semester M.A. Degree (CBSS – Reg./Suppl. (Including Mercy Chance)/ Imp.) Examination, April 2021
(2014 Admission Onwards)
ECONOMICS / APPLIED ECONOMICS/DEVELOPMENT ECONOMICS
ECO 2C 09 – Basic Econometrics

Time : 3 Hours

Max. Marks : 60

PART – A

Answer **all** questions :

(8×½=4)

1. Total variation of the actual Y values about their sample mean is
   a) TSS   b) ESS   c) RSS   d) MSS

2. Which of the following can be used for testing the overall significance of a multiple regression ?
   a) t- test   b) Z - test   c) F - test   d) Chi-square test

3. r^2 or the coefficient of determination is a/an
   a) Econometric test
   c) Priori test
   b) Second order test
   d) First order test

4. Autocorrelation is tested using _____ test.
   a) Granger's   b) Park   c) Chow   d) Durbin Watson

5. OLS regression model may be non-linear in
   a) Parameters   b) Variables   c) Both a) and b)   d) None of the above

6. Over identified equation is estimated with _____ method.
   a) OLS   b) ILS   c) Recursive   d) 2SLS

7. Regressors are _____ in repeated samples.
   a) Random
   c) Non stochastic
   b) Stochastic
   d) Varying

8. The mean value of the estimate is the same as its true value, the property is
   a) Linearity
   c) Consistency
   b) Unbiasedness
   d) Efficiency

PART – B

Answer **any eight** questions. **Each** question carries **2** marks : (8×2=16)

9. What is a recursive model ?

10. Define linearity in regression.

11. What is meant by generalized least squares ?

12. Define standard error.

13. Explain tests of significance.

14. Define a random variable.

15. Explain statistical significance.

16. What is a disturbance term ?

17. Define econometrics.

18. What do you know about normality assumption ?

19. Define heteroscedasticity.

PART – C

Answer **any four** questions. **Each** carries **5** marks : (4×5=20)

20. Explain the meaning and causes of autocorrelation.

21. What are the causes of multicollinearity ?

22. Prepare a note on 2SLS.

23. What is Simultaneous equation bias ? How does it occur ?

24. Explain ANOVA in regression.

25. What are the desirable properties of an estimator ?

PART – D

Answer **any two** questions. **Each** question carries **10** marks : **(2×10=20)**

26. Discuss the nature and scope of econometrics. Distinguish between Econometrics and Mathematical Economics.

27. State and explain the assumptions of classical linear regression model.

28. Given the following sample data of a two variable regression model :

    $\sum X_i = 502$, $\sum Y_i = 222$, $\sum X_i^2 = 18126$, $\sum Y_i^2 = 4924$, $\sum X_i Y_i = 9224$,

    Sample size = 20.

    Estimate regression equations Y on X and X on Y.

29. Discuss in detail the problem of heteroscedasticity, its consequences in the presence of OLS estimation, the methods of detection and remedies to solve it.

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