



**K19P 0214**

Reg. No. : .....

Name : .....

**II Semester M.A. Degree (Reg./Suppl./Imp.) Examination, April 2019  
(2014 Admission Onwards)**

**ECONOMICS / APPLIED ECONOMICS / DEVELOPMENT ECONOMICS**

**ECO 2C 09 : Basic Econometrics**

Time : 3 Hours

Max. Marks 60

**PART - A**

Answer all questions :

1. In an econometric model,  $y = \alpha + \beta X$ ,  $\beta$  shows
  - a) Intercept
  - b) Slope
  - c) Lag
  - d) Error
2. Glejser test is associated with
  - a) Multicollinearity
  - b) Heteroscedasticity
  - c) Autocorrelation
  - d) Dummy variable
3. \_\_\_\_\_ is a method of time series forecasting.
  - a) VAR
  - b) Box-Jenkins
  - c) Both a) and b)
  - d) None
4. Coefficient of determination ranges between \_\_\_\_\_ and \_\_\_\_\_.
  - a) 0, 1
  - b) -1, +1
  - c) 0,  $\alpha$
  - d) 1,  $\alpha$
5. Identify the assumption of a linear regression
  - a) Multivariate normality
  - b) No or little multicollinearity
  - c) No auto-correlation
  - d) All the above

**P.T.O.**



6. Generalized least square estimators are
- a) Best linear and biased
  - b) Best linear unbiased and efficient
  - c) Linear biased and inefficient
  - d) Best linear biased and inefficient
7. Factor analysis is a remedial measure for
- a) Normality
  - b) Autocorrelation
  - c) Multicollinearity
  - d) Heteroscedasticity
8. \_\_\_\_\_ measures the goodness of fit of model.
- a)  $d$  statistic
  - b)  $p$  value
  - c) Standard error
  - d) R square
- (8×1/2=4)

## PART – B

Answer any eight questions. Each question carries 2 marks.

9. What is meant by recursive model ?
10. Explain generalized least squares.
11. Define standard error.
12. What is meant by tests of significance ?
13. What is a random variable ?
14. What is meant by statistical significance ?
15. Define disturbance term.
16. What is the normality assumption ?
17. What is a regressor ?
18. Define unbiasedness property of an estimator.
19. What do you mean by autocorrelation ?
- (8×2=16)



PART – C

Answer **any four** questions. **Each** question carries **5** marks.

20. Prepare a note on 2SLS.
21. What is simultaneous equation bias ? How does it occur ?
22. Explain ANOVA in regression.
23. Explain the remedies for the problem of multicollinearity.
24. What is the significance of error term in regression ?
25. Prepare a note on econometric method of forecasting. (4×5=20)

PART – D

Answer **any two** questions. **Each** question carries **10** marks.

26. Discuss in detail the problem of autocorrelation, its consequences in the presence of OLS estimation, the methods of detection and remedies to solve it.
27. 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.
28. State and explain the assumptions of classical linear regression model.
29. Discuss the nature and scope of econometrics. Distinguish between Econometrics and Mathematical Economics. (2×10=20)