

2022

Economics

[HONOURS]

(CBCS)

(B.Sc. Fifth Semester End Examination-2022)

PAPER-DSE1

Applied Economics

Full Marks: 60

Time: 03 Hrs

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

Group-A

1. Answer any ten questions of the following: 10x2= 20

- a) Define adjusted coefficient of determination (\bar{R}^2).
- b) Define the functional form in misspecification.
- c) Distinguish between lag-linear and linear-log function.
- d) What are the consequences of autocorrelation?
- e) What is distributed log model?
- f) Define simultaneous equation models
- g) Differentiate between pooled data and panel data?
- h) Distinguish between short panel and long panel.
- i) Define endogenous and exogenous variables.

(2)

- j) What are structural form and reduced form equations in a simultaneous equation system?
- k) When does a dummy variable trap arise?
- l) What are the assumptions on the disturbance term in OLS method of estimation?
- m) Define type-I and type-II error.
- n) Mention few popular approaches for estimating Panel Data Model.
- o) What do you mean by multicollinearity problem?

Group-B

Answer any four questions of the following: 4x5 = 20

- 2. What is coefficient of determination (\bar{R}^2)? What are the properties of it?
- 3. Calculate slope between X_1 and Y_1 , slope between X_2 and Y_1 , elasticity of Y_1 w.v to X_1 and elasticity of Y_1 w.v to X_2 for two variable linear regression models.
- 4. Discuss briefly the autoregressive model.
- 5. What are the advantages and disadvantages of panel data?
- 6. What is meant by serial correlation? Explain the Durbin-Watson d test for detecting serial correlation.
- 7. Discuss the different types of specification error that may occur while framing an econometric model.
- 8. In a two variable linear regression model prove that the OLS estimates are best.

(3)

Group -C

Answer any two questions:

2x10 = 20

- 9. Briefly explain different categories of model misspecification. 10
- 10. a) Write down the problems of fixed effect least square dummy variable model?
b) Mention the disadvantages of fixed effect within group estimator with the help of a suitable model.
- 11. Discuss the Koyek Approach of estimating distributed lag models.
- 12. In a two variable regression model prove the linearity and unbiasedness properties of least square estimates.
