2021
Economics
[HONOURS]
(CBCS)
(B.Sc. Fifth Semester End Examinations-2021)
PAPER-DSE1

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:**   **10x2= 20**

a) What is meant by population regression line?

b) Interpret the following confidence interval where β_2 is the regression coefficient in two variable linear model.

$$\Pr(-1.5 < \beta_2 < 2.2) = 0.95$$

c) Mention any two properties of OLS estimators.

d) What is dummy variable?

e) What is meant by 'Heteroscedastialy'?

f) D-W value lies between _____ ?

g) What is type –I error?

h) What is homoscedasticity?

i) What do you mean by model misspecification?

j) What are the effects of model misspecification?

k) What do you mean by coefficient of determination?

l) What is auto regressive model?

m) Elaborate the method of instrumental variable.

n) What is pooled data?

o) What is an endogenous variable?

Group-B

Answer any four of the following Questions: **5x4 = 20**

2. How do you solve the multicollinearity problem?

3. Mention the assumptions underlying the classical linear regression model.

4. Write a short note on disturbance term in a linear model.

5. What are the properties of correlation coefficient?

6. Discuss briefly the misspecification of time series data.

7. Why is model selection required in econometrics?

8. What are the advantages of panel data?

Group -C

Answer any two of the following question: **10x2 = 20**

9. For a two variable linear model derive the variance of the OLS estimators.

10. For a two variable linear model, show that the least squares estimators are unbiased.

11. Discuss briefly different categories of model misspecification.

12. Make a comparison between random effect model (REM) and fixed effect model(FEM).