**ECH 552**

### IV Semester M.A. Degree Examination, September/October 2022
### (CBCS)
### ECONOMICS
### Econometrics – II

Time : 3 Hours

Max. Marks : 70

**Notes :** 1) Answer **all** the **three** Parts.
2) Part – **A** : Answer to **each** question **not** exceeding ½ page.
3) Part – **B** : Answer to **each** question **not** exceeding **4** pages.
4) Part – **C** : Answer to **each** question **not** exceeding **6** pages.

## PART – A

1. Define/Answer **any ten** of the following. **(10×2=20)**
   a) Econometrics
   b) Errors
   c) Estimation
   d) OLS
   e) Multi collinearity
   f) Homoscedasticity.
   g) Explaining variable
   h) Remedial measures
   i) Regression
   j) Exogenous variable
   k) Identification
   l) Dummy variables.

## PART – B

Answer **any five** of the following. **(5×6=30)**

2. Discuss the nature of dummy variables.

3. Discuss the important properties of estimators.

4. Discuss the least-square principles in two-variable regression model.

5. Explain Piecewise linear regression.

6. Explain briefly graphic method of detecting auto correlation.

7. Define detection of multicollinearity.

8. Evaluate the nature of heteroscedasticity.

9. Explain inconsistency of OLS estimator.

## PART – C

Answer **any two** of the following. **(2×10=20)**

10. Hypothetical data on weekly family consumption expenditure Y and weekly family income X. The raw data required to obtain the estimates of the regression co-efficients and their standard errors.

| **Y :** | 60 | 70 | 75 | 80 | 85 | 90 | 100 | 110 | 120 | 130 |
|---------|----|----|----|----|----|----|-----|-----|-----|-----|
| **X :** | 70 | 80 | 100 | 120 | 140 | 160 | 180 | 280 | 220 | 240 |

11. Let $\hat{\beta}_{yx}$ and $\hat{\beta}_{xy}$ represent the steps in the regression of y on x and x on y respectively. Show that $\hat{\beta}_{yx}$ and $\hat{\beta}_{xy} = \gamma^2$.

12. Discuss the important consequences of auto correlation.

13. Critically discuss detection of heteroscedasticity.

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