

2018

M.A. / M.Sc.

4th Semester Examination

ECONOMICS

Subject Code—04

PAPER—ECO-401E

Full Marks : 40

Time : 2 Hours

The figures in the right-hand margin indicate full 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 two questions : 2×2

(a) What are the advantages of GLRM ?

(Turn Over)

- (b) State the features of the disturbance term of Cross-Sectionally correlated and Time wise Autoregressive (CCTA) Model.
- (c) What do you mean by seemingly unrelated regression ?
- (d) What's the reason for using GMM if MLE is asymptotically efficient ?

2. Answer any *one* question : 1×6

- (a) In case of heteroskedastic disturbance term prove that $P\Omega P = I$.
- (b) Prove that GLS estimator is BLUE.

3. Answer any *one* question: 1×10

- (a) Explain how the GLS method is effective in overcoming the problems of autocorrelation and heteroskedasticity in the Cross-Sectionally Heteroskedastic and Time wise Autoregressive (CHTA) Model.
- (b) Specify the Error Component Model. Find out the relationship among different error terms and estimate the variance-covariance matrix (Ω).

Group—B

4. Answer any *two* questions : 2×2
- (a) Derive the matrix form of simultaneous equation system.
- (b) Give an example of overidentified equation.
- (c) What is ILS method ?
- (d) What is the relation between logit and probit estimates ?
5. Answer any *one* question : 1×6
- (a) Write the order and rank conditions of identification. Check the identifiability of the supply equation in the following model :
- Demand function : $Q_t = a_0 + a_1P_t + a_2Y_t + u_{1t}$
- Supply function : $Q_t = b_0 + b_1P_t + u_{2t}$
- (b) Explain the logit model. What are its properties ?

6. Answer any *one* question :

1×10

(a) Explain the method of Principal Components Analysis.

What are the problems with this method ?

(b) Explain the method of 2SLS.
