

**2019**

**MA/MSc**

**4<sup>th</sup> Semester Examination**

**ECONOMICS**

**PAPER – ECO-401(E)**

**Full Marks : 50**

**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 : 2x2
- a) What are the advantages of GLRM?
  - b) What is the reason for using GMM if MLE is asymptotically efficient?
  - c) In case of heteroskedastic disturbance term prove that  $P \Omega P' = I$ .
  - d) How is GLS helpful for the prediction of future observations?
2. Answer any **ONE** question : 1x6
- a) Write a short note on seemingly unrelated regression.
  - b) Explain the properties of GMM.
3. Answer any **ONE** question : 1x10
- a) Explain how the GLS method is effective to overcome the problems of autocorrelation and heteroskedasticity in the Cross Sectionally Heteroskedastic and Time-wise Autoregressive (CHTA) Model.
  - b)
    - i) Explain the salient features of Cross-Sectionally Heteroskedastic and Time wise Autocorrelation (CHTA) model.
    - iii) Specify the Error Component Model and estimate the parameters of this model.

## Group-B

4. Answer any **TWO** questions : 2x2= 4
- (a) Write order and rank conditions of identification.
  - (b) Can the OLS method be applied in recursive model? Explain .
  - (c) What is FIML?
  - (d) What is probit model?
5. Answer any **ONE** question : 1x6=6
- (a) Explain the method of ILS.
  - (b) Explain the method of PCA with a suitable example.
6. Answer any **ONE** question : 1x10
- (a) How is the logit model estimated? How is the marginal effect computed here? What are the different measures of goodness of fit of this model? 5+2+3
  - (b) Explain the steps in 2SLS method. Prove with a suitable example that ILS and 2SLS estimates will be same for exactly identified equation. (5+5)

**( Internal Assessment Marks : 10 )**