2016

M.A/M.Sc.

3rd Semester Examination

ECONOMICS

PAPER—ECO-303E

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.

Special Paper : Econometrics III

Group—A

1. Answer any *two* of the following : 2×2

(a) What are the features of GLRM ?

(b) What do you mean by GMM ?

(c) Specify the features of the error term in cross-sectionally correlated and timewise Autoregressive Model.

(d) Give an example of seemingly unrelated regression.

2. Answer any *one* of the following : 1×6

(a) How is GLRM helpful for prediction of future values ?

(b) What is error component model ? Find out the variances-covariance matrix of this model.

3. Answer any *one* of the following : 1×10

(a) Estimate the parameter of GLRM by GLS and prove that it is BLUE.

(b) Explain the estimation procedure of cross-sectionally Heteroskedastic and Timewise Autoregressive (CHTA) model.

Group—B

4. Answer any *two* questions from the following : 2×2

(a) What is ILS ?

(b) What is LIML ?

(c) What are the problems of LIM ?

(d) Write any two criteria for the selection of principal components.

5. Answer any *one* question from the following : 1×6

(a) Prove with a suitable example that OLS estimator is inconsistant in simultaneous equation model. 6

(b) Write the order condition and rank condition of identification of an equation in simultaneous equation system. Check the identification status of investment function in the following system :

$$C_t = \alpha_0 + \alpha_1 Y_t - \alpha_2 T_t + u_1$$

$$I_t = \beta_0 + \beta_1 Y_{t-1} + u_2$$

$$T_t = \gamma_0 + \gamma_1 Y_t + u_3$$

$$Y_t = C_t + I_t + G_t$$

6. Answer any *one* question from the following : 1×10

(a) Explain the 2SLS estimation producer. What are the properties of 2SLS estimates ? Prove with a suitable example the ILS and 2SLS for just identified equation.

(b) What is logil model ? How is the model estimated ? How can you find the marginal effect of change in the explanatory variable on P_i ? What are the measures of goodness of fit in this model ? What is the relation between logit and probit estimates ?

3+3+1+2+1

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