Roll No. ..... Total Pages : 3

OMDQ/M-20 **2422**

ECONOMETRICS

Paper–ST-403 ST-404

Opt.–V

Time Allowed : 3 Hours] [Maximum Marks : 75

Note : Attempt **five** questions in all, selecting at least **one** question from each Unit. Question No. **1** is compulsory. All questions carry equal marks.

Compulsory Question

1. Answer the following parts in brief : 3×5=15

   (a) What are the sources of autocorrelation?

   (b) Write the two tests to find the problem of heteroscedastiacity.

   (c) Write reduced form of a two equation model of your choice.

   (d) What are the assumptions of FIML?

   (e) Write the form and interpretation of trans-log function.

UNIT–I

2. What do you understand by the problem of Multicollinearity? Elaborate various tools to handle this problem.

3. What is meant by distributed lag model? Explain Partial Adjustment model.

UNIT–II

4. What do you understand by the problem of Identification? Why the restrictions are put on structural parameters?

5. Define Rank and Order conditions of Identification and apply on the reduced form of following model where Z and T are exogenous :

$$X_t = b_0 + b_1 Z_t + b_2 Y_t + v_{1t}$$
$$Y_t = a_0 + a_1 X_t + a_2 T_t + v_{2t}.$$

Which of above equations is identified?

UNIT–III

6. Write a detailed note on 2SLS method of estimation.

7. How LIML method can be used for estimation of a system of simultaneous equations?

UNIT–IV

8. What are the properties of Cobb-Douglas production function? How it can be estimated?

9. Write short notes on the following :

   (a) Pooling of time series and cross sectional data.

   (b) Cost function.