2014

M.A/M.Sc.

3rd Semester Examination

ECONOMICS

PAPER—ECO-302E

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

Group—A

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

(a) What is random walk with drift ?

(b) What is augmented Dickey-Fuller test ?

(c) What do you mean by an integrated series ?

(d) What do you mean by exogeneity ?

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

(a) What is an Error Correction Model ? Explain its significance.. 3+3

(b) What is an autoregressive distributed lag relationship ? How is it used to model short-run dynamics and long-run equilibrium relation between two macro variables ?

2+4

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

(a) What is spurious correlation ? Why does it arise ? How can you identify statistically the existence of spurious correlation ? 2+3+5

(b) Present a detailed description of the combined model formed by Adaptive expectation, and Partial Adjustment models.

10

Group—B

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

(a) What do you mean by individual heterogeneity in panel data ?

(b) Write two important features of Dynamic Panel Data Regression Model.

(c) Distinguish between a balanced panel and an unbalanced panel.

(d) How are the conclusions of the Breusch and Pagan Lagrange Multiplier test arrived at in panel data regression ?

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

(a) Explain why the method of GLS is considered more appropriate than method of OLS while estimating random effect model.

(b) On the basis of Investment data of four companies during 20 years the estimated pooled regression is given as

$$\bar{Y} = -63\cdot3041 + 0\cdot1101x_2 + 0\cdot3034x_3;\ R^2 = 0\cdot75;$$
$$(-2\cdot1376)\quad (8\cdot01)\quad (6\cdot15)\quad D-W = 0\cdot2187$$

Interpret the above result. What problem does this low value of D – W statistic imply. How you will overcome this problem ?

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

(a) Construct a Fixed Effect Panel Data Regression model with unobserved effect and estimate its parameters.

(b) Briefly explain the Hausman's specification test for Random Effect Model. Write the steps and commands in STATA for Hausman's test.
