(i) Printed Pages : 3 Roll No. ....

(ii) Questions : 9

Sub. Code : | 0 | 7 | 1 | 9 |

Exam. Code : | 0 | 0 | 0 | 9 |

B.A./B.Sc. (Hons.) 5th Semester

(2123)

ECONOMICS

Paper—III Introduction to Econometrics

Time Allowed : Three Hours] **[Maximum Marks : 90**

Note :—Attempt ***five*** questions in all, including Question No. I, which is compulsory. Select ***one*** question each from the remaining ***four*** units.

I. Attempt any ***nine*** questions from the following short-answer type questions in about **25–30** words each :—

(a) Explain how Econometrics is different from Mathematical Economics & Statistics ?

(b) Distinguish between Theoretical Econometrics & Applied Econometrics.

(c) Specification of an econometric model.

(d) What do you mean by Testing of Hypothesis ?

(e) Explain F-test.

(f) Explain Maximum Likelihood Estimation.

(g) What is Partial Correlation ?

(h) "Multicollinearity is a question of degree and not of kind". Comment.

(i) Explain Park Test.

(j) What is a Dummy Variable Trap ?

(k) Distinguish between a Distributed Lag Model and an Auto-regressive Model.

(l) The OLS method of estimation of a distributed lag model is a failure. Why ? 9×2=18

UNIT—I

II. Define Econometrics and explain in detail the methodology of an econometric research. 18

III. State and prove the Gauss-Markov Theorem. 18

UNIT—II

IV. Explain the small sample as well as large sample properties of estimators. 18

V. Write notes on the following :—

(a) Simple and Composite Hypothesis

(b) R^2 and Adjusted R^2. 9,9

UNIT—III

VI. Describe the general linear regression model in matrix form and explain the estimation and properties of the least squares estimators. 18

VII. Discuss the detection and solution of the multicollinearity problem. 18

UNIT—IV

VIII. What are Dummy Variables ? Discuss the important features of such variables. Explain the use of dummy variables in seasonal analysis. 18

IX. Critically examine Koyck Transformation of distributed lag models. 18