(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

(2122)

ECONOMICS

(Introduction to Econometrics)

Paper–III

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 in about **25-30** words each :

(a) Scope of Econometrics.

(b) Why do we include a random variable to an econometric model ?

(c) Properties of least squares estimators.

(d) Explain Type-I and Type-II errors in testing of hypothesis.

(e) Distinguish between R^2 and adjusted R^2.

(f) Explain Maximum Likelihood Estimation.

(g) Define partial correlation and explain partial correlation coefficients.

(h) Define multicollinearity and explain the statement "Multicollinearity is a question of degree and not of kind."

(i) Explain Breusch-Pagan-Godfrey (BPG) test.

(j) What is dummy variable trap ?

(k) Distinguish between an auto regressive model and a distributed lag model.

(l) Explain reasons for lags. 9×2

UNIT–I

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

III. State and prove Gauss-Markov theorem for a simple linear regression model. 18

UNIT–II

IV. Define testing of hypothesis. Explain the confidence interval approach and test of significance approach to testing of hypothesis. 18

V. Write notes on the following :

(a) Simple and composite hypothesis

(b) F-test and t-test. 9,9

UNIT–III

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

VII. Discuss the detection and remedial measures for the problem of multicollinearity. 18

UNIT–IV

VIII. What are dummy variables ? Explain in detail the uses of such variables. 18

IX. Discuss the Koyck's approach to Distributed Lag models. What are its limitations ? 18