

(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 :

- Scope of Econometrics.
- Why do we include a random variable to an econometric model ?
- Properties of least squares estimators.
- Explain Type-I and Type-II errors in testing of hypothesis.
- Distinguish between R^2 and adjusted R^2 .
- 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