



KERALA AGRICULTURAL UNIVERSITY
B.Sc (Hons.) C & B 2015 Admission
V Semester Final Examination-November-2017

Econ.3106

Fundamentals of Econometrics (1+1)

Marks: 50
Time: 2 hours

I Fill in the blanks: (10x1=10)

- 1 The term Multicollinearity is coined by -----
 - 2 The expression $E(u_i u_j) = 0, i \neq j$ represents -----
 - 3 Probability of Type I error is -----
 - 4 In the regression model $Y_i = \beta_1 + \beta_2 x_i + u_i$ the regression coefficients β_1 and β_2 are called -----
 - 5 The exact level of significance is called -----
- State True or False:**
- 6 The OLS estimators are expressed solely in terms of X and Y.
 - 7 In the regression analysis the dependent variable is also called explanatory variable.
 - 8 r^2 is defined as the ratio of residual sum of squares to total sum of squares.
 - 9 Durbin Watson test is used for detecting autocorrelation.
 - 10 The BLUE properties of an OLS estimator is propounded by Francis Galton.

II Write short notes on any FIVE: (5x2=10)

- 1 Theoretical Econometrics and Applied Econometrics.
- 2 Deterministic model and Stochastic model.
- 3 Coefficient of Correlation and Coefficient of determination.
- 4 Null hypothesis and alternative hypothesis.
- 5 Explained variable and explanatory variable.
- 6 Probability distribution and sampling distribution.
- 7 Time series data and Cross section data.

III Answer any FIVE: (5x4=20)

- 1 Definition of the term "Econometrics".
- 2 Desirable properties of an Econometric model.
- 3 T Statistic with an example.
- 4 BLUE properties of an estimator.
- 5 Reasons for heteroscedasticity.
- 6 Tests for autocorrelation.
- 7 Consequences of multi collinearity.

IV Write essay on any ONE: (1x10=10)

- 1 Discuss with a suitable example, the different stages of an econometric study.
- 2 Bring out the rationale for including the disturbance term to an econometric model, citing an example.
