

4-4-2016



DOON UNIVERSITY, DEHRADUN
Semester Mid Term Examination, even Semester, 2016
School of social science
M.A. (Economics) 2nd Sem
Course: SSE-532: Econometrics

Time Allowed: 2Hours

Maximum Marks: 30

Section A: Attempt Any Two (2*5= 10 marks)

1. find out the relationship between
A. Econometrics and mathematical economics.
B. Econometrics and statistics. 5 marks
2. $\text{Var}(b_1) > \text{var}(b_1^*)$ proof the minimum variance property. 5 marks
3. Explain T test and Z test for the significance of estimators of SRF. 5 marks

Section B: Attempt Any Two (2*5= 10 marks)

1. What are the divisions of Econometrics? 5 marks
2. Prove the relationship between R^2 and slop of regression line is given by $R^2 = \hat{\beta}_1 * \{\sum xy / \sum y^2\}$ 5 marks

3. Given the following estimated consumption function

$$\widehat{c_t} = 1500 + .82y_t \quad r^2 = .95 \text{ and } n = 15$$

Test on the β_0 and β_1 , they are significant or not 5 marks

Section C: Attempt Any Two (2*5= 10 marks)

1. Explain Bivariate and multivariate regression model with examples. 5 marks
2. Derive the formula for the β_0 and β_1 with the OLS method for the model $Y = \beta_0 + \beta_1 x + u$. 5 marks
3. Explain the model with more than two independent variables and generalize the formula for their estimators. 5 marks