16/12/16

DOON UNIVERSITY, DEHRADUN
Semester Final Examination, odd Semester, 2016
School of social science
M.Sc. (Economics) 5th Sem
Course: SSEI (312)-Econometric

Time Allowed: 3Hours *Maximum Marks: 50*

1. Interpret the following estimated model.
   $\widehat{y1}$ = -19194+.1984X2+ .16 X3 R^2=0.95 , S.E. Of X2 coefficient= .19 and X3 Coefficient= .03 5 marks

Or

Differentiate between the standard error and standard deviation 5 marks

2- test the significance of $\widehat{b1}$ & $\widehat{b2}$ for the model

Yi = b1 + b2X2i+ b3X3i+ Ui by using the following intermediate results

$\sum Yi^2 = 1000 \sum x2^2 = 200 \sum x3^2 = 1000 \sum x3iyi = -100 \sum x2x3 = 400$ avg (X2) = 15 avg(Y)= 10 n=28 Calculate adjusted R^2. 10 marks

OR

(a) Derive the formula of R^2 for multivariate regression. 5 marks
(b) What is the difference between R^2 and adjusted R^2. 5 marks

3- What is general linear regression model. Explain. 5 Marks

OR

Generalize the variance of $\widehat{bn}$ with Matrix approach.

4- How to formulate (t test) for testing of estimators of sampling distribution . 5 marks

OR

Discuss the confidence interval of estimators ($\widehat{b0}$ & $\widehat{b1}$) for any sampling distribution. 5 marks

5- Generalize the estimators of multiple regression model (with two variable Example) and discuss the characteristics of estimators. 10 marks

OR

With the following table 10 marks

Quantity	8	3	4	7	8	0
Demand	2	4	3	1	3	5

1- Estimate the demand function of the product Y= b0 + b1X + U.

2- Estimate the average price elasticity of demand.

6- Comment on the probability distribution of Ui. 5 Marks

OR

Discuss on the techniques of qualitative analysis. 5 marks

7- Differentiate between ANOVA and ANCOVA with suitable example. 5 marks

OR

Discuss about interaction effect using dummy variables. 5 marks

8- What is chow test. How we can us dummies for the alternative of Chow test. 5 marks

OR

Explain and interpret the piece wise linear regression.