

25/5/2016



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

532

Time Allowed: 2Hours

Maximum Marks: 30

Sec A:- Attempt Any two

(10 marks)

1. Find out the relationship between R^2 and adjusted R^2 .
2. Interpret the following estimated model.

$$\widehat{y}_1 = -19.194 + .1984X_2 + .16X_3 \quad R^2 = 0.95, \text{ S.E. Of } X_2 \text{ coefficient} = .19 \text{ and } X_3 \text{ Coefficient} = .03$$

3. Write chow test for testing equality of two regressions.

Sec B:- Attempt Any one

(10 marks)

1. From the following table shows import, national income and relative price of the country.

Import Y	100	106	107	120	110	116	123	133	137
National income X1	100	104	106	111	111	115	120	124	126
Relative Price X2	100	99	110	126	113	103	102	103	98

- a) Fit a regress line to a function $y = b_0 + b_1X_1 + b_2X_2 + u$
 - b) Test your result by using analysis of variance table.
2. From the given data

X	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
y	2	2	2	1	3	5	8	11	12	10	10	12	15	10	11

Test the problem of heteroscedasticity with the help of Goldfeld-Quandt test.

Sec C:- Attempt Any one

(10 marks)

1. Given the following observations $\sum x_1x_2 = 76$ $\sum x_2x_3 = 42$ $\sum x_1x_3 = 58$ $\sum x_1^2 = 81$
 $\sum x_2^2 = 121$ $\sum x_3^2 = 49$ $\sum y_i^2 = 102$ $n=10$. Test the problem of multicollinearity with Farrar-Glauber Test.
2. Write the short notes
 - a) What is perfect multicollinearity.
 - b) Method to identify the heteroscedasticity with Spearman rank correlation method.
 - c) Uses of dummy variables.
 - d) What is the base of control category.