

5/4/2016

DOON UNIVERSITY, DEHRADUN
Mid Semester Examination, 2016
(Special Back Paper)
Department of Economics
M.Sc. Fourth Semester
SSEI- 222: Econometrics II

Time Allowed: 2 hrs.

Max. Marks: 30

Note: Attempt All Questions from Sections A,B,C.

SECTION : A

All questions are compulsory and carry equal marks.

Answer TRUE or FALSE

(Marks: 1x6=6)

1. With the violation of the assumption of homoscedasticity, the estimates of the regression function will still be unbiased.
2. A sure way of removing multicollinearity from the model is to drop variables that cause multicollinearity in the first place.
3. By autocorrelation we mean that the residuals of a regression model are related with one or more of the regressors.
4. If heteroscedasticity is detected, one can take corrective action such as using GLS regression or other technique.
5. Multicollinearity problem arises mostly in cross section data.
6. In the simple linear regression model, the regression slope indicates by how many percent Y increases, given a one percent increase in X.

SECTION : B

Answer any THREE.

(Marks: 3x4=12)

1. Define Durbin Watson d- statistics? What are the assumptions underlying the d-statistic.
2. Discuss the assumptions of the Linear Regression Model
3. Discuss the Park Test for detecting heteroscedasticity.
4. Differentiate between Economic Model and Econometric Model.

SECTION : C

Answer any ONE.

(Marks: 1x12=12)

1. Assume a two variable linear regression model. Show what happens to the variance of the OLS estimators (for any one estimator) in the presence of heteroscedasticity. (the disturbance term follow all the other standard OLS assumptions).
2. Define Multicollinearity. What are the consequences of the multicollinearity problem? How can multicollinearity be detected? Discuss.
