

## **DOON UNIVERSITY DEHRADUN**

Midterm Examination: March, 2017

## **School of Social Sciences**

M Sc (Economics), Sixth Semester -SSEI-53QCourse: ECONOMETRICS -R

Time Allowed: 2 Hours

Maximum Marks: 30

Note: Attempt all sections.

Section: A (Short Answer Type Questions to be answered in about 50-75 words).

Write short notes on any Twelve Questions.

(Marks:.5X12=6)

- 1. The Econometric Society (1930) definition of Econometrics
- 2. Types of Econometrics
- 3. Population
- 4. Gauss-Markov Theorem (only Statement)
- 5. Explanatory Variables
- 6. Regression Coefficients
- 7. Regression Parameters
- 8. Stochastic Variables
- 9. Inferential Statistics
- 10. Descriptive Statistics
- 11. Ordinal Scale
- 12. Nominal Scale
- 13. Calmfors- Driffill Hypothesis (in context of Quadratic Functions in Econometrics)
- 14. Kuznets Curve (in context of Quadratic Functions in Econometrics)
- 15. Statement of Theory or Hypothesis
- 16. The OLS Method (only statement )

## SECTION: B (Short Answer Type Questions to be answered in about 250 words each)

Attempt any Four Questions.

(Marks: 4X3=12)

- 1. What is/are meant by (a) Econometrics? (b) The Functions of Econometrics (c) Aspects of Econometrics make it basically different from most Physical Sciences.
- 2. Discuss Regression and its objectives with suitable examples.
- 3. What is meant by (a) Regression Analysis (b) disturbance or error term
- 4. What justifies the inclusion of a disturbance or error term in regression analysis?
- 5. Discuss three stages of Econometric Research in context of Methodology of Econometrics.
- 6. In what way and for what purpose are (a) economic theory, (b) mathematics, and (c) Statistical analysis combined to form the field of study of econometrics?

SECTION: C (Long Answer Type Questions to be answered in about 750 words)

Attempt Question 1 [compulsory] any one from the remaining two Questions.

(Marks: 6X2=12)

1. Illustrate the steps used to develop the Population Regression Function with data from the following table 1

Table 1	Study Hours and Individual Exam Scores for Population of	
	<b>Econometrics Students</b>	
Study Hours, H	Grades, G	·
1	25, 30, 35, 40, 45	
2	35, 40, 44, 50, 55, 58	
3	49, 54, 60, 64, 68	
4	50, 63, 65, 73, 78, 83, 85	
5	72, 77, 80, 86, 88, 95	

- 2. Explain Linear Functions with examples (a) Linear Demand Functions, (b) Linear-Log Functional Form, (c) Cobb-Douglas Production Function
- 3. Discuss following structure of Data with suitable examples.
  - (a) Cross-Sectional Data
  - (b) Time Series Data
  - (c) Pooled Data/Pooled Cross Sections
  - (d) Panel/Longitudinal Data