UVA WELLASSA UNIVERSITY OF SRI LANKA
FACULTY OF ANIMAL SCIENCE & EXPORT AGRICULTURE

BSc in Export Agriculture
Third Year Second Semester Examination – December/January 2017/18

Econometrics (EAG 330-2)
Section II – Essay Questions

Instructions:
Answer **all** questions in the given booklet.
No. of questions : Two (02)
No. of pages : Two (02)
Time : One (01) hour
Total marks allocated : 60%

01.

(I)

a) What is meant by econometrics? (04 marks)

b) List 8 steps involved in the traditional econometrics methodology (16 marks)

(II) Define the followings;

a) Data (5 marks)

b) Variables (5 marks)

(III) Briefly explain the following stating the importance of each data type

a) Cross sectional data (10 marks)

b) Panel data (10 marks)

c) Time series data (10 marks)

(IV) Briefly explain the following sampling techniques

a) Random (10 marks)

b) Systematic (10 marks)

c) Stratified (10 marks)

d) Cluster (10 marks)

02.

(I) What is meant by regression? (10 marks)

(II) State the assumption of linear regression (10 marks)

(III) Distinguish between correlation and regression (10 marks)

(IV) Stating the nature of the dependent variable, give two practical examples where the researchers use each of the following models (20 Marks)

a) Logit model
b) Tobit model
c) Multinomial logit model
d) Ordered logit model

(V) Identify the dependent and independent variables in each case given below (20 Marks)

a) Time spent working on a paper and the grade received
b) Yield per plant and plant density
c) Amount of K applied per plot and total solid contents of fruit
d) Milk yield per day of cow and diet intake per day

(VI) A biologist assumes that there is a linear relationship between the amount of fertilizer supplied to tomato plants and the subsequent yield of tomato obtained. Eight tomato plants, of the same variety, were selected at random and treated, weekly, with a solution in which x grams of fertilizer was dissolved in a fixed quantity of water. The yield y kilograms, of tomato were recorded.

Plant	A	B	C	D	E	F	G	H
x	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
y	3.9	4.4	5.8	6.6	7.0	7.1	7.3	7.7

a) Draw a scatter diagram and identify a possible relationship (10 marks)
b) Determine the regression model according to the relationship identified in part (a) (10 marks)
c) Estimate the yield when Amount of Fertilizer = 3.2 (10 marks)

[End of Section II]