

EASTERN UNIVERSITY, SRI LANKA

FIRST YEAR FIRST SEMESTER EXAMINATION IN AGRICULTURE – 2010/2011

EC 1101 – PRINCIPLES OF AGRICULTURAL ECONOMICS

Answer ALL questions.

Time allowed: 2 hours



What do you understand by "Marginal Analysis"?

Illustrate the concept of "Consumer Equilibrium"?

The following table shows the cross-price elasticities of demand for several goods where the percent quantity change is measured for the first good of the pair, and the percent price change is measured for the second good.

<u>Good</u>	<u>Cross-price elasticities of demand</u>
1. Refrigerate units and kilowatts of electricity	-0.34
2. Coke and Pepsi	+0.63
3. High fuel consuming machinery and petrol	-0.28
4. Butter and Margarine	+1.54

i) Explain the sign of each of the cross-price elasticities. What does it imply about the relationship between the two goods in question?

ii) Compare the absolute values of the cross-price elasticities and explain, why is the cross-price elasticity of coke and pepsi less than the cross-price elasticity of butter and margarine?

The market demand and supply schedule for product X is shown in the table given below. Answer the questions based on the information in the table.

Price per unit (Rs)	8	7	6	5	4	3	2	1
Demand (000s)	6	8	10	12	14	16	18	20
Supply (000s)	18	16	14	12	10	8	6	4
New Demand (000s)	10	12	14	16	18	20	22	24
New Supply (00s)	26	24	22	20	18	16	14	12

- i) What is the market equilibrium price of this product (X)?
- ii) Due to the improvement in the quality of the product (X) the demand for it was increased by 4000 units (new demand) at each price while the supply units were constant. What is the new equilibrium price?
- iii) Due to the entrance of new producers now the new supply was shown as in the table above. Find the current new equilibrium price of this product?

b)

- i) Define the term "Isoquant"?
- ii) The schedule of factor combination of capital and labour to produce an isoquant is shown below: copy the table in your answer script and find the Marginal Rate of Technical Substitution (MRTS) along this isoquant.

Factor Combinations	A	B	C	D	E
Units of Labor	1	2	3	4	5
Units of Capital	15	11	8	6	5

- iii) Sketch the isoquant for the above factor combinations.
- iii) Explain the 'Law of diminishing marginal rate of technical substitution' using the above information.

03)

Write Short Notes about the following economic concepts given below:

- a. Resource use efficiency in different stages of production.
- b. Gross Domestic Product is different from National Income.
- c. Rice market in Sri Lanka is best example for competitive market.

04)

- a) Differentiate 'Macro economics' from 'Micro economics'. (Give three different points)
- b) Illustrate the equilibrium National Income.
- c) K is small island nation. Its total population total is 400, and it has 100 wage earners who earn an average of \$5000 per year. Each wage earner spends \$4000 per year buying local goods and services and \$2.50 buying imports. The island exports a total of \$800 worth of goods. The Government tax rate is 10% of income earned and all government money is spent on building infrastructure and supporting schools. There is only one industry (coal mining) on the island which employs every wage earner. The industry spends \$600 each year on new mining equipment. What is the Gross Domestic Product (GDP) of the island?