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EASTERN UNIVERSITY, SRI LANKA

FIRST YEAR FIRST SEMESTER EXAMINATION IN AGRICULTURE – 2005 / 2006

AEC 1101: INTRODUCTORY MICROECONOMICS

Answer ALL Questions

Time allowed: 02 hours

1. a) Define the term “Market demand”.
 - b) List the factors or determinants affecting Market demand.
 - c) There are 2000 identical consumers in a market for processed vegetable packs, each with a demand function given by $Q_D = 12.1 - 2P$ and 10 identical producers in the same market each with a supply function given by $Q_S = 20P$.
 - i) Find the market demand function and market supply function for processed vegetable packs.
 - ii) Find the price and quantity of processed vegetables packs at the market equilibrium condition.
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2. a) Differentiate between Cardinal Utility and Ordinal Utility.
 - b) What does the Law of Marginal Utility say?
 - c) List the characteristics of Indifference curves.
 - d) You are given the following information.

Price of good X = Rs. 100/=

Price of good Y = Rs. 500/=

Income of a particular person = Rs. 2000/=

Using the above information, answer the following questions,

- iii) Find out the maximum amount of good X this person can buy.
- iv) Find out the maximum amount of good Y this person can buy.
- v) Draw the Budget Line for these two goods X and Y.

3. a) Graphically show the three stages of production (Y) for a single input (X).
 b) Explain the economic characteristics of each stage of production.
 c) State which stage is rational to produce and why?
 d) Given below is the production function for Paddy (Y) units with respect to Nitrogen fertilizer (X) units, while all other inputs kept constant.

$$Y = 8X + X^2 + 1/3X^3$$

Find the optimal level of nitrogen fertilizer to be used if the price of paddy (Py) is Rs. 10 and price of fertilizer (Pf) is Rs. 110.

4. a) Explain the term "Economies of Scale".

b)

Quantity	0	1	2	3	4	5	6
Total Fixed Cost (TFC)	120	120	120	120	120	120	120
Total Variable Cost (TVC)	0	60	80	90	105	140	210

From the above table find,

I. (i) Total Cost (TC)

(i) Average Fixed Cost (AFC)

(ii) Average Variable Cost (AVC)

(iii) Marginal Cost (MC)

II. On the same set of axis, plot the TFC, TVC, and TC curves.