Uva Wellassa University
BSc in Export Agriculture
Bachelor of Animal Science
BSc in Tea Technology and Value Addition
BSc in Palm and Latex Technology and Value Addition

End Semester Examination – August/ September 2011
Year II Semester II

Economic Thinking in Agriculture (EAG 221-3/0)

Instructions

Answer **five (5)** questions selecting **three (03) questions from part one (I) and two (02) questions from part two (II)**

No. of questions : Seven (07)
No. of pages : Four (04)
Time : Three Hours (03 hrs)
Total marks allocated : 40/100

Part I

1.

a.

i. What is meant by **Demand**?

ii. List four demand shifters

iii. Considering the following demand and supply functions of a commodity, find the equilibrium price and the quantity and sketch the functions in a graph.

$P = 170 - 4.5Q$ *and* $P = 100 + 2.5Q$.

Where **P** is the price of the product and **Q** is the quantity

b. Comment on the following statements

i. Consumers utility depends on the consumption of goods

ii. Environmental problem occurs due to the problem of lack of property rights

c. With the use of suitable illustrations, describe the following in relation to fishery

   i. Maximum sustainable yield

   ii. Maximum economic yield

d. Discuss the process of moving from one long run competitive equilibrium position to another in the perfect competition (use suitable illustrations to explain your answer).

2.

a. Only one resource, **X** is used in producing an output **Y**.As **X** is increased, total physical product, **Y**, increases at a decreasing rate, reaches a maximum level and then decreases.

Show graphically the relation among

   i. the total physical product curve

   ii. the marginal physical product curve and

   iii. their respective cost curve

b. A given product can be produced with the following combinations of factors:

Combination	Factor (X1)	Factor (X2)
1	39	0
2	28	1
3	20	3
4	14	5
5	9	8
6	5	12
7	1	17
8	0	25

c. Which combination meets the least cost objective when prices of the factors are?

   i. $P_{X2} = 6.40, P_{X1} = 8.00$

   ii. $P_{X2} = 0.75, P_{X1} = 0.25$

   iii. $P_{X2} = 1.60, P_{X1} = 0.40$

d. Discuss the reasons why the firm, if it is to maximize the cost of producing a given output, must equate the marginal rate of technical substitution and the input – price ratio.

e. What is the difference between the short run and the long run? What is the difference between fixed inputs and variable inputs?

3.

a. A firm's total cost function (where **C** is total cost in dollars and q is quantity) is $\mathbf{C = 200 + 4q + 2q^2}$

   i. If the firm is perfectly competitive and if the price of its product is $24, what is its optimal output rate?

   ii. At this output rate, what are its profits?

   iii. Derive the firm's short – run supply curve.

b. What are the differences between private and social costs? Illustrate your answer with cases of environmental pollution

c.

   i. It is said that any point inside the production possibility frontier is technically inefficient. WHY?

   ii. Using an Edgeworth-Bowley box diagram, show efficiency of production could be achieved

4.

a. What are the reasons to exist a monopoly?

b. Explain short run equilibrium of a firm under monopoly using diagrams.

c. Suppose you are the owner of a metals – producing firm that is an unregulated monopoly. After considerable experimentation and research you find that your marginal cost curve can be approximated by a straight line $\boldsymbol{MC = 60 + 2Q}$, where $\boldsymbol{MC}$ is marginal cost (in dollars) and $\boldsymbol{Q}$ is your output. Moreover, suppose that the demand curve for your product is $\boldsymbol{P = 100 - Q}$ where $\boldsymbol{P}$ is the product price (in dollars) and $\boldsymbol{Q}$ is your output. If you want to maximize profit, what output should you choose?

d. Consumers are better off having a monopoly firm produce a particular good than having no firm produce it. Comment on this statement using suitable illustrations.

Part II

5.

a. **GDP** is the value of all final goods & services produced in the country within a given period of time. What is the difference between the final goods and intermediate goods?

b. Construct a circular flow diagram for the three sector economy

c. For a domestic economy, **C = 85 + 0.75 Yd**, Investment **(I) = 50**, Government Spending **(G) = 150**, Government transfers **(TR) = 100**, Income tax rate**(t) = 0.20**

   i. What is the multiplier?

   ii. Calculate the equilibrium income and budget surplus

   iii. If Government spending (G) rises to 250 and t increases to 0.25 calculate the equilibrium income and budget surplus.

6.

a. Describe the difference between frictional unemployment and structural unemployment.

b. What is a natural rate of unemployment?

c. Explain the relationship between unemployment & inflation rate using the Phillip's Curve.

d. **'The most disadvantage of any recession is a rise in unemployment rate'.** Comment on it.

7.

a. Explain the Aggregate Supply under Classical and Keynesian assumptions.

b. '**IS curve** is negatively sloped, reflecting the increase in aggregate demand associated with a reduction in the interest rate'. Explain it.

c. Cutting taxes will have dual impact on economy. Do you agree with the above statement? If yes / no, give reasons.