

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.

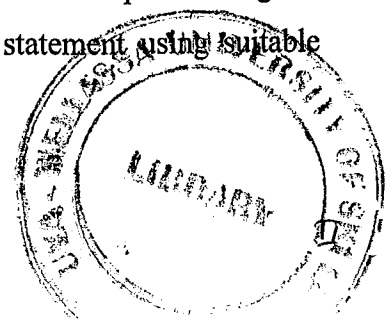
- a. A firm's total cost function (where C is total cost in dollars and q is quantity) is

$$C = 200 + 4q + 2q^2$$

- 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 $MC = 60 + 2Q$, where MC is marginal cost (in dollars) and Q is your output. Moreover, suppose that the demand curve for your product is $P = 100 - Q$ where P is the product price (in dollars) and 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.
- 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?
 - Construct a circular flow diagram for the three sector economy
 - For a domestic economy, $C = 85 + 0.75 Y_d$, Investment (I) = 50, Government Spending (G) = 150, Government transfers (TR) = 100, Income tax rate (t) = 0.20
 - What is the multiplier?
 - Calculate the equilibrium income and budget surplus
 - If Government spending (G) rises to 250 and t increases to 0.25 calculate the equilibrium income and budget surplus.
- 6.
- Describe the difference between frictional unemployment and structural unemployment.
 - What is a natural rate of unemployment?
 - Explain the relationship between unemployment & inflation rate using the Phillip's Curve.
 - '**The most disadvantage of any recession is a rise in unemployment rate**'. Comment on it.
- 7.
- Explain the Aggregate Supply under Classical and Keynesian assumptions.
 - '**IS curve** is negatively sloped, reflecting the increase in aggregate demand associated with a reduction in the interest rate'. Explain it.
 - Cutting taxes will have dual impact on economy. Do you agree with the above statement? If yes / no, give reasons.