

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF DEGREE OF MASTER OF AGRIBUSINESS
MANAGEMENT

AGBM 861: ADVANCED ECONOMICS FOR AGRIBUSINESS

STREAMS: MSC AGBM

TIME: 3 HOURS

DAY/DATE: MONDAY 6/08/2018

8.30 A.M - 11.30 A.M.

INSTRUCTIONS:

- Answers Question ONE and any other TWO Questions
- Do not write anything on the question paper

QUESTION ONE

- (a) An Agricultural investor always seeks to maximize profit and increase the output. Economics then facilitate this realization by minimizing costs and maximizing profits. Discuss the new concept of agribusiness economic in relation to investor's key objective. [5 Marks]
- (b) Monetary and fiscal policy frameworks by government always impedes by contracting or expanding the economy. Explain in relation to these policy frameworks the crowding out effect of fiscal policy. [5 Marks]
- (c) Scarcity is a pervasive fact of economic life. It is mostly expressed as a constraint on permissible economic variables. Discuss the various types of constraints stating examples of each. [5 Marks]
- (d) Consider a monopoly with a demand function $Q = 50 - P$ and cost function $C(Q) = 5Q + \frac{1}{2}Q^2$

Required:

- (i) Compute the profit level of output and price of the firm.
- (ii) What would be the value of P and Q given the condition that $Q \geq 0$
- (iii) Suppose a price control is set on the above monopoly requiring its price to be no higher than Kshs.25. In addition, another constraint is introduced where

AGBM 861

$Q = \leq 50 - P$. Analyze the profit maximizing problem giving all the relevant cases.

[15 Marks]

QUESTION TWO

(a) Given the following production function $y = 2x^{0.5}$

Required: Calculate;

(i) The unconditional input demand function. [3 Marks]

(ii) The output supply function of the production system. [3 Marks]

(iii) Production maximum profit. [4 Marks]

(b) Under cost maximization problem economists aim at producing a given level of output at the lowest possible cost. Discuss the properties of the cost functions. [8 Marks]

(c) Distinguish between homogenous production function and homothetic production function. [2 Marks]

QUESTION THREE

(a) Given the following functional model of a firm $y = x_1^{0.3} x_2^{0.2}$

Use the two step approach to profit maximization to calculate

(i) The conditional input demands functions of the firm

(ii) The minimum cost of the firm

(iii) The unconditional input demand function of the firm

(iv) The output supply function of the firm

(v) The maximum profit the firm can optimize form any given period of time [15 Marks]

(b) Discuss the major production techniques used by investors and production experts. [5 Marks]

QUESTION FOUR

(a) Is national income a satisfactory measure of economic welfare? Explain giving alternative measures you would suggest. [10 Marks]

(b) Economics in agriculture is concerned with the application of economic theory in optimizing the production and distribution of food and fibre. Discuss the major areas in agribusiness economics. [10 Marks]

QUESTION FIVE

AGBM 861

(a) Disequilibrium in the Balance of Payments may either be a deficit or a surplus depending on the shift of the exports and imports direction. Explain the causes of disequilibrium in Balance of Payments. [10 Marks]

(b) Consider a wheat farmer who lives near a factor, the farmer has two options:

- (i) Farming supplying L_1 hours
- (ii) To work at the factory supplying L_2 hours.

Assume that the amount of wheat produced (Y) is given by a production function of the firm $Y = L_1^{0.5}$. The farmer has at most L hours to work either at the farm or the factory and that the farmer's utility function for market consumption of good C and wheat consumption of X is given by $U = C X$.

Assume also that the price of market good is defined as 1, the price of wheat as P and that the wage for working at the factory is W . Set up the decision problem for the farmer and compute the equilibrium solution for L_1, Y, C and X . What happens when P changes and W changes?

[10 Marks]

.....