



# MASENO UNIVERSITY

**UNIVERSITY EXAMINATIONS 2016/2017**

**SECOND YEAR FIRST SEMESTER EXAMINATION FOR DEGREE  
OF BACHELOR OF SCIENCE IN AGRICULTURAL  
ECONOMICS/AGRIBUSINESS MANAGEMENT WITH  
INFORMATION TECHNOLOGY**

**MAIN CAMPUS**

**AEC 204: AGRICULTURAL ECONOMICS**

**Date: 30<sup>th</sup> November, 2016**

**Time: 3.30 - 6.30pm**

## **INSTRUCTIONS:**

- Answer ALL Questions in section A and any TWO in section B.
- Carefully read and follow the instructions contained in the answer booklet provided.
- Marks for each question are indicated in brackets against each question.

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**ISO 9001:2008 CERTIFIED**





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SCIENCE IN AGRIBUSINESS MANAGEMENT WITH INFORMATION  
TECHNOLOGY**

**AEC 204: AGRICULTURAL ECONOMICS**

**INSTRUCTIONS TO CANDIDATES**

1. Carefully **READ AND FOLLOW THE INSTRUCTIONS** contained in the answer booklet(s) you have been provided with.
2. Answer **ALL** the Questions in Section A and Any Two Questions in Section B.
3. Marks for each question are indicated in brackets against each Question

**SECTION A (Compulsory)**

1. a. Using indifference curves derive the demand curve for a normal good. (5 mks)  
b. Write brief notes on the following:
  - i. Scarcity and choice (2.5 mks)
  - ii. Price elasticity of demand (2.5 mks)c. With the help of a diagram distinguish between the income effect and substitution effect of change in the price of a normal good (8 mks)
2. The demand and supply schedule for carrots in Kibuye market are given below. Use the information to answer the questions below:

Price Kshs "000" Per ton	Quantity demanded per (thousands of tons)	Quantity demanded per (thousands of tons)
2	110.0	5.0
4	90.0	46.0
8	67.5	100.0
10	62.5	115.0
12	60.0	122.5

- (i) Use the graphical method to determine the equilibrium price. (5 mks)
- (ii) Explain what would happen if the prices were set at Ksh 4,000 and Ksh 10,000 respectively. (3 mks)
- (iii) What is the price elasticity of demand when prices change from Ksh. 4,000 to Ksh. 10,000. (2 mks)
- (iv) Interpret the coefficient calculated and explain whether the demand at this point is considered to be elastic or inelastic. (1 mks)
- (v) State FOUR factors that would affect the supply of beans in Kibuye Market (2 mks)

### SECTION B – ANSWER ANY TWO QUESTIONS

3. The following table shows a production relationship between input (X) and output (Y). Use the information to answer the questions that follow.

X	Y
0	0
1	16
2	26
3	31
4	35
5	38
6	40
7	42
8	43
9	43
10	42

- (i) Calculate MPP & APP at each level of output. (5 mks)
- (ii) Plot the TPP, MPP and APP curves. Show the 3 production regions. (10 mks)
- (iii) Briefly discuss each region in (ii) above and explain what a rational producer should do in each region. (5 mks)

4. A firm is faced with the following schedule of output and associated cost of production

OUTPUT	TOTAL COST
0	1000
1	1500
2	3500
3	4500
4	6500
5	8500
6	12000

Use the above information to answer the questions below:-

- (i) Compute the Total Fixed Cost and Total Variable Cost at each level of output (6 mks)
- (ii) Compute the AFC, AVC and MC at each level of output. (8 mks)
- (iii) What levels of output would maximize profit at prices of 1000 and 3500 respectively. State the principles used to determine these output levels. (3 mks)
- (iv) Compute the profit generated at the levels of output in (iii) above. (3 mks)

5. a) What is oligopoly? (4 mks)

b) Using a well-labeled diagram, show that a monopolist can make losses in the short-run even when  $MC = MR$  (8 mks)

c) Using a well-labeled diagram, explain why prices are „sticky“ downward under oligopolistic market (8 mks)