MAASAI MARA UNIVERSITY

**REGULAR UNIVERSITY EXAMINATIONS
2017/2018 ACADEMIC YEAR
FIRST YEAR SECOND SEMESTER**

**SCHOOL OF BUSINESS AND ECONOMICS
BACHELOR OF SCIENCE IN AGRICULTURAL
ECONOMICS & RESOURCE MANAGEMENT**

**COURSE CODE: ARE 1205
COURSE TITLE: INTRODUCTION TO
                        AGRICULTURAL ECONOMICS**

DATE : 3ᴿᴰ MAY 2018   **TIME:1430 – 1630 HRS**

INSTRUCTIONS TO CANDIDATES

Answer Question **ONE** and any other **THREE** questions

QUESTION 1

a) What is agricultural economics? **(2 marks)**

b) Outline five unique characteristics of agricultural products **(5 marks)**

a) Given hypothetical data set as follows

Inputs (X)	0	1	2	3	4	5	6	7	8	9
Output (Q)	0	5	11	16	20	23	25	26	26	25

Compute

      I) average physical product (APP) **(2 marks)**

      ii) Marginal physical product (MPP) **(2 marks)**

      iii) Plot on a paper APP and MPP. **(3 marks)**

b) The general production function is given as **Q = f(X, U, E)**

      i) Explain the variables in the function **(2 marks)**

      ii) What is the potential measurement problem in the relationship?

      (4 marks)

    c) What is an indifference curve? Outline six properties of an indifference curve. **(5 marks)**

QUESTION TWO

    a) "The demand for salt is perfectly inelastic". explain what you understand by this statement and give reasons why it is probably true **(7 marks)**

    b) For these demand and supply equations

      Qd = (6.5 – P) 20,000

      Qs = (P – 0.5) 20,000

      Determine the equilibrium price and equilibrium quantity **(8 marks)**

QUESTION 3

a) List four factors affecting demand for an agricultural product **(2 marks)**

b) Given the following hypothetical data set for oranges in the market place

Price (kshs)	10	8	6	2	0
Quantity demanded (Qd)	5	10	15	20	25
Quantity supplied (Qs)	25	20	15	10	5

i) Plot the data on a paper **(3 marks)**
ii) Indicate the equilibrium price and quantity **(2 marks)**
iii) What would happen if the maximum price would be held to kshs 2/= **(3 marks)**
iv) What would happen if the minimum price would be held to kshs 8/= **(3 marks)**
v) What would happen if tastes for the product changed (**2 mark**)

QUESTION 4

a) What is price elasticity of demand for an agricultural product? **(2 Marks)**

b) Given the following data set for an agricultural commodity

Price (P)	6	5	4	3	2
Quantity (Q)	10	20	30	40	50

i) Compute elasticity coefficients between points on the demand schedule **(6 Marks)**
ii) Explain what these coefficients mean **(3 marks)**
iii) What does this suggest for price variability for both producers and consumers? **(4 mark)**

QUESTION 5

a) With the following production function data

Input	0	1	2	3	4	5	6	7	8
Product	0	5	11	16	20	23	25	26	26

i)   Compute marginal revenue if the price of the product is kshs 4/= per unit   **(4 Marks)**

ii)   Determine the level of input use and profit if the cost of the input price is kshs 10/= per unit   **(4 marks)**

iii)   What happens if the price of product declines to Kshs 2/= per unit?   **(2 marks)**

iv)   What happens if the price of product increases to Kshs 5/= per unit?   **(2 marks)**

b) Explain why the firm has an the incentives to use inputs up to the point where MRC= MRP at Market equilibrium   **(3 marks)**

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