

### **MACHAKOS UNIVERSITY**

University Examinations for 2019/2020 Academic Year

## SCHOOL OF AGRICULTURAL SCIENCES DEPARTMENT OF AGRIBUSINESS MANAGEMENT AND TRADE

# FIRST YEAR SECOND SEMESTER SUPPLEMENTARY/SPECIAL EXAMINATION FOR

# BACHELOR OF SCIENCE AGRIBUSINESS MANAGEMENT AND TRADE BACHELOR OF SCIENCE AGRICULTURAL EDUCATION AND EXTENSION

### AGB 103/KBT 209 PRINCIPLES OF AGRICULTURAL MICROECONOMICS

Date: xxx Time: 2hrs **Instructions:** Answer **Question1** and **ANY TWO** other questions. **QUESTION 1 (30 MARKS)** a) Differentiate between the following terms as used in economics Price ceiling and price floor i. (2 marks). Pareto optimality and Pareto superiority ii. (2 marks). Normal good and inferior good iii. (2 marks). Ordinal utility and cardinal utility (2 marks). iv. Positive externality and negative externality (2 marks). v. b) With examples or illustrations, expound on the following economics terms i. A classical production function (3 marks). ii. Marginal rate of technical substitution (3 marks). iii. Consumer surplus (3 marks). iv. The law of diminishing marginal utility (3 marks). c) Explain two types of collusion in an oligopolistic market (4 marks) d) Describe four properties of indifference curves (4 marks).

#### **QUESTION 2 (20 MARKS)**

- a) Expound on four reasons why perfect competition in some agricultural markets rarely exists in practice (8 marks).
- b) The figures in the table below were taken from demand schedules of two goods.

	Quantity1	Price1	Quantity2	Price2
Good 1	50	4	35	5
Good 3	7	5	7	6
Good 4	45	24	30	36

i. Calculate the price elasticity of demand for each good

(6 marks).

ii. Explain the meaning of elasticity values obtained for each good

(3 marks).

iii. For each of the goods, explain what would happen to the total revenue earned from the good if the price of the good was increased (3 marks).

#### **QUESTION 3 (20 MARKS)**

- a) Explain the role played by agriculture in economic development in Kenya (8 marks).
- b) The Government of Kenya plans to set a maximum price of commercial fertilizers. <u>Using a diagram</u>, explain whether or not this policy change will be beneficial (12 marks).

### **QUESTION 4 (20 MARKS)**

a) Describe three types of returns to scale

(6 marks).

b) Explain two sources of economies of scale

(4 marks).

c) Using an appropriate graph, explain how a purely competitive firm maximizes profit

(10 marks).

#### **QUESTION 5 (20 MARKS)**

- a) Demand for soda in Kenya will remain unchanged in the next thirty years. Discuss. (10 marks).
- b) Suppose there was a sudden severe drought in key dairy production zones of Kenya. Explain, <u>using a diagram</u>, the likely changes in equilibrium price and quantity of milk in the short run (10 marks).