MACHAKOS UNIVERSITY

University Examinations for 2020/2021 Academic Year

SCHOOL OF AGRICULTURAL SCIENCES

DEPARTMENT OF AGRICULTURAL EDUCATION AND EXTENSION

FIRST/SECOND YEAR SPECIAL/ SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF SCIENCE IN AGRICULTURAL EDUCATION AND EXTENSION

BACHELOR OF SCIENCE AGRIBUSINESS MANAGEMENT AND TRADE

AGB 103/KBT 209: PRINCIPLES OF AGRICULTURAL MICROECONOMICS

DATE: 22/03/2021 **TIME: 8.30-10.30 AM**

INSTRUCTIONS;

Answer **Question one** and **ANY TWO** other questions.

QUESTION ONE (30 MARKS)

a) Differentiate between the following terms as used in economics

i. Price ceiling and price floor (2 marks)

ii. Pareto optimality and Pareto superiority (2 marks)

iii. Normal good and inferior good (2 marks)

iv. Ordinal utility and cardinal utility (2 marks)

v. Positive externality and negative externality (2 marks)

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 TWO (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 THREE (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. Using a diagram, explain whether or not this policy change will be beneficial (12 marks)

QUESTION FOUR (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 FIVE (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, using a diagram, the likely changes in equilibrium price and quantity of milk in the short run (10 marks)