MACHAKOS UNIVERSITY

University Examinations for 2021/2022 Academic Year

SCHOOL OF AGRICULTURE, ENVIRONMENT AND HEALTH SCIENCES

DEPARTMENT OF AGRICULTURAL SCIENCES

FIRST/SECOND YEAR SPECIAL / SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF SCIENCE IN AGRICULTURAL EDUCATION AND EXTENSION

BACHELOR OF EDUCATION SCIENCE

BACHELOR OF EDUCATION (SPECIAL NEEDS)

AGB 103/KBT 209: PRINCIPLES OF AGRICULTURAL MICROECONOMICS

DATE: 25/8/2022   **TIME: 8.30-10.30 AM**

INSTRUCTIONS:

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

QUESTION ONE (30 MARKS)

a)   Define the following terms as used in agricultural economics

    i.   Elasticity of demand   (2 marks)

    ii.   Marginal rate of substitution   (2 marks)

    iii.   Opportunity cost   (2 marks)

    iv.   Negative externality   (2 marks)

b)   Using <u>illustrations</u> or <u>examples</u>, differentiate between the following terms

    i.   Normal good and inferior good   (3 marks)

    ii.   Microeconomics and macroeconomics   (3 marks)

    iii.   Pareto optimality and pareto superiority   (3 marks)

    iv.   Economies of scale and returns to scale   (3 marks)

c)   Highlight four factors that favor the existence of a monopoly (4 marks)

d)   Describe three axioms of rational choice   (6 marks)

QUESTION TWO (20 MARKS)

a) Explain the contribution of agriculture to economic development in Kenya (8 marks)

b) The figures in the table below were taken from demand schedules of two goods.

    i. Calculate the price elasticity of demand for each good (8 marks)

    ii. Explain the meaning of elasticity values obtained for each good (4 marks)

	Quantity1	Price1	Quantity2	Price2
Good 1	100	4	65	5
Good 2	56	9	45	9
Good 3	20	5	20	6
Good 4	180	48	120	72

QUESTION THREE (20 MARKS)

a) Explain five factors that affect demand of agricultural commodities (10 marks)

b) Using a diagram, explain the following terms

    i. Price ceiling (5 marks)

    ii. Price floor (5 marks)

QUESTION FOUR (20 MARKS)

a) Explain two approaches to measurement of utility (4 marks)

b) Explain how firms set prices in oligopolistic markets (4 marks)

c) Suppose there was a sudden an outbreak of armyworms in the maize growing regions in Kenya. Explain, using a diagram, what would likely happen to equilibrium price and quantity of maize in the country (12 marks)

QUESTION FIVE (20 MARKS)

a) With relevant examples, describe four types of demand for agricultural products (8 marks)

b) Using an appropriate diagram, explain how a firm in monopolistic competition maximizes profit (12 marks)