



# MACHAKOS UNIVERSITY

University Examinations for 2019/2020 Academic Year

SCHOOL OF AGRICULTURAL SCIENCES

DEPARTMENT OF AGRIBUSINESS MANAGEMENT AND TRADE

FOURTH YEAR SPECIAL/ SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF SCIENCE IN AGRICULTURAL EDUCATION AND EXTENSION

BACHELOR OF SCIENCE IN AGRIBUSINESS MANAGEMENT

AGB 103/KBT 209 PRINCIPLES OF AGRICULTURAL MICROECONOMICS

DATE: 18/01/2021

TIME: 8.30-10.30 AM

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## INSTRUCTIONS:

Answer question one and any other two questions

### QUESTION ONE (30 MARKS)

- a) Differentiate between the following terms as used in economics
- i. Pareto optimality and Pareto superiority (2 marks)
  - ii. Microeconomics and macroeconomics (2 marks)
  - iii. Normal good and inferior good (2 marks)
  - iv. Overt collusion and tacit collusion (2 marks)
  - v. Positive externality and negative externality (2 marks)
  - vi. Ordinal utility and cardinal utility (2 marks)
  - vii. Price ceiling and price floor (2 marks)
- b) With examples or illustrations, expound on the following economics terms
- i. Income consumption curve (3 marks)
  - ii. Marginal rate of technical substitution (3 marks)
  - iii. The law of diminishing marginal utility (3 marks)
  - iv. Producer surplus (3 marks)
- c) Describe four properties of indifference curves (4 marks)

## QUESTION TWO (20 MARKS)

- a) With relevant examples, explain FOUR factors that influence supply of agricultural products (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) Using an appropriate diagram, explain how a purely competitive firm maximizes profit (8 marks).
- b) You have soft drinks – soda and fruit juice, and a fixed income. Using a diagram, explain how you would choose the optimal combination of these products to maximize utility assuming competitive markets (12 marks).

## QUESTION FOUR (20 MARKS)

- a) Expound on four reasons why perfect competition in agricultural markets rarely exists. (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 FIVE (20 MARKS)

- a) Describe three types of returns to scale (6 marks)
- b) Explain two sources of economies of scale (4 marks)

- c) 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
- (12 marks)