



MACHAKOS UNIVERSITY

University Examinations for 2018/2019 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

AGB 103/KBT209: PRINCIPLES OF AGRICULTURAL MICROECONOMICS

DATE: 24/7/2019

TIME: 2.00-4.00 PM

INSTRUCTIONS:

Answer **Question1** and **ANY TWO** other questions.

- a) Define the following economics terms
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|-----------------------------------|----------|
| i. Scarcity | (1 mark) |
| ii. Marginal utility | (1 mark) |
| iii. Opportunity cost | (1 mark) |
| iv. Marginal rate of substitution | (1 mark) |
| v. Elasticity of supply | (1 mark) |
| vi. Marginal revenue | (1 mark) |
- b) Differentiate between the following terms as used in economics
- | | |
|--|-----------|
| i. Normal good and inferior good | (2 marks) |
| ii. Price ceiling and price floor | (2 marks) |
| iii. Overt collusion and tacit collusion | (2 marks) |
| iv. Change in quantity supplied and change in supply | (2 marks) |
| v. Monopoly and monopolistic competition | (2 marks) |
| vi. Positive externality and negative externality | (2 marks) |
| vii. Indifference curve and isoquant | (2 marks) |
| viii. Economies of scale and returns to scale | (2 marks) |
- c) Explain four determinants of demand elasticity for agricultural commodities (4 marks)
- d) Describe four axioms of rational choice (4 marks)

QUESTION TWO

- a) The figures in the table below were taken from demand schedules of two goods.
- Calculate the price elasticity of demand for each good (6 marks)
 - Explain the meaning of elasticity values obtained for each good (4 marks)
 - State what would happen to the total revenue from each good if the prices of both goods were increased (2 marks).

	Quantity1	Price1	Quantity2	Price2
Good 1	100	4	70	5
Good 2	25	6	15	5

- b) Explain four factors that favor the existence of a monopoly (8 marks).

QUESTION THREE

- a) Suppose just two weeks before the rainy season, the government of Kenya announces that it has signed a memorandum of understanding with government of India for purchase of green grams from Kenyan farmers. Explain, using a diagram, what may happen to equilibrium price and quantity of certified seeds of green grams (10 marks)
- b) Supply of beef in Kenya is likely to remain constant over the next twenty years. Discuss the validity of this viewpoint (10 marks)

QUESTION FOUR

- a) Using an appropriate diagram, explain how a monopolist maximizes profit (10 marks)
- b) With the aid of a diagram, explain how changes in consumer income influence consumption of agricultural commodities under constant product prices (10 marks)

QUESTION FIVE

- a) You have two inputs – labor and capital, and a fixed production budget. Explain how you would choose the optimal combination of these inputs to maximize output assuming competitive markets (12 marks)
- b) With relevant examples, describe four types of demand for agricultural products (8 marks)