MACHAKOS UNIVERSITY

University Examinations for 2016/2017 Academic Year

SCHOOL OF AGRICULTURE AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF AGRICULTURAL EDUCATION AND EXTENSION

FIRST YEAR SECOND SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE IN AGRICULTURAL EDUCATION AND EXTENSION

BACHELOR OF SCIENCE IN AGRIBUSINESS MANAGEMENT

SPECIAL EXAMINATION

AGB 103: PRINCIPLES OF AGRICULTURAL MICROECONOMICS

DATE: 29/8/2017 **TIME: 8:30 – 10:30 AM**

INSTRUCTIONS:

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

QUESTION ONE

a) Define the following economics terms

i. Marginal revenue (1 mark)

ii. Marginal utility (1 mark)

iii. Scarcity (1 mark)

iv. Elasticity of supply (1 mark)

v. Opportunity cost (1 mark)

vi. Marginal rate of substitution (1 mark)

b) Differentiate between the following terms as used in economics

i. Monopoly and monopolistic competition (2 marks)

ii. Positive externality and negative externality (2 marks)

iii. Change in quantity supplied and change in supply (2 marks)

iv. Economies of scale and returns to scale (2 marks)

v. Price ceiling and price floor (2 marks)

vi. Normal good and inferior good (2 marks)

vii. Overt collusion and tacit collusion (2 marks)

viii. Indifference curve and isoquant (2 marks)

c) Describe four axioms of rational choice (4 marks)

d) Explain four determinants of demand elasticity for agricultural commodities (4 marks)

QUESTION TWO

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

QUESTION THREE

a) Using an appropriate diagram, explain how a monopolist maximizes profit (10 marks)

b) Demand for milk in Kenya is likely to remain constant over the next ten years. Discuss the validity of this viewpoint (10 marks)

QUESTION FOUR

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

i. Calculate the price elasticity of demand for each good (6 marks)

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

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

QUESTION FIVE

a) Suppose just two weeks before the rainy season, the meteorological department warned there would be "below normal" rains countrywide. Explain, using a diagram, what may happen to equilibrium price and quantity of seeds of a drought-tolerant crop (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)