MACHAKOS UNIVERSITY

University Examinations for 2016/2017

SCHOOL OF AGRICULTURE AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF AGRIBUSINESS MANAGEMENT AND TRADE

FIRST YEAR SECOND SEMESTER EXAMINATION FOR DEGREE IN

BACHELOR OF SCIENCE AGRIBUSINESS MANAGEMENT AND TRADE

BACHELOR OF SCIENCE AGRICULTURAL EDUCATION AND EXTENSION

AGB 103: PRINCIPLES OF AGRICULTURAL MICROECONOMICS

Date: 5/6/2017 **Time: 8:30 -10:30 AM**

INSTRUCTIONS:

Answer Question One and ANY TWO other questions. Question 1 carries 30 marks while the other questions carry 20 marks each.

QUESTION ONE(COMPULSORY) (30 MARKS)

a) Define the following economics terms

i. Opportunity cost (1 mark)

ii. Marginal rate of technical substitution (1 mark)

iii. Scarcity (1 mark)

iv. Elasticity (1 mark)

b) Differentiate between the following terms as used in economics

i. Overt collusion and tacit collusion (2 marks)

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

iii. Pareto optimality and Pareto superiority (2 marks)

iv. Change in quantity demanded and change in demand (2 marks)

v. Normal good and inferior good (2 marks)

vi. Ordinal utility and cardinal utility (2 marks)

vii. Price ceiling and price floor (2 marks)

c) Describe four characteristics of indifference curves (4 marks)

d) Illustrate the relationship between average product, marginal physical product, average costs and marginal costs (4 marks)

e) Describe four types of demand for agricultural goods (4 marks)

QUESTION TWO (20 MARKS)

a) Suppose just two weeks before the rainy season, the meteorological department announced there would be "above 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) You have two inputs – land and capital, and a fixed production budget. Explain how you would choose the optimal combination of these inputs to maximize output (10 marks)

QUESTION THREE (20 MARKS)

a) Suppose the Cabinet Secretary for Agriculture imposed a price floor on locally produced rice. With appropriate illustrations, describe how this policy may affect the welfare of rice farmers, consumers and the economy (10 marks)

b) Using an appropriate diagram

   i. Explain how a monopolist maximizes profit (8 marks)

   ii. Compare output and price in (i) above with those of a purely competitive firm (2 marks)

QUESTION FOUR (20 MARKS)

a) Graphically illustrate and describe how a consumer would maximize utility of beef and chicken, given prices of the two commodities and a fixed income. (12 marks)

b) Explain why perfectly competitive markets rarely exist in practice. (8 marks)

QUESTION FIVE (20 MARKS)

a) Under what circumstances would it be advisable for a loss making firm to continue production? (4 marks)

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

   iv. Calculate the cross price elasticity for good 1 (2 marks)

   v. Explain whether the two goods are substitutes or complements (2 marks)

	Quantity1	**Price1**	**Quantity2**	**Price2**
Good 1	200	8	140	10
Good 2	50	12	45	15