



MACHAKOS UNIVERSITY COLLEGE

(A Constituent College of Kenyatta University)

University Examinations 2015/2016

SCHOOL OF AGRICULTURE AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL STUDIES

FIRST SEMESTER EXAMINATION FOR DIPLOMA IN AGRICULTURAL
EDUCATION AND EXTENSION

KBT 0203: AGRICULTURAL PRODUCTION ECONOMICS

Date: 21/04/2016

Time: 11.00-1.00 PM

INSTRUCTIONS

This paper consists of FIVE questions

Answer question one and other two questions in this paper

SECTION A:

1. a) Describe Agricultural Production Economics and highlight its main objectives. (6 marks)
- b) Explain production in the very short run, short run and long run. (6 marks)
- c) Define the term Marginal rate of technical substitution. (3 marks)
- d) Explain the types of relationships which may exist among inputs on a specified enterprise type. (6 marks)
- e) Explain the concept of Elasticity of production and its importance to the decision maker. (5 marks)
- f) Explain the law of diminishing marginal returns. (4 marks)

SECTION B:

2. a) Illustrate the production function using the TPP, APP and MPP curves. (8 marks)

- b) Explain the three stages of the production function. (12 marks)
3. a) Describe the concept of Marginal rate of product transformation. (4 marks)
- b) Explain the types of relationships which may exist between products/enterprises competing for limited resources. (16 marks)
4. Production at Juma's farm shows the following relationship between the number of workers and the Quantity of output of maize cob per shelled per day (kg). He leases the farm at a cost of KShs 50 per day (this is his only fixed cost). He hires a worker at KShs 80 per day (this is his only variable cost).

Quantity of Variable input (labour)	Quantity of output from farm (Maize-Kg.)	Fixed cost (KShs)	Variable cost (KShs)	Total cost (KShs)	Average total cost (KShs)	Marginal cost
0	0					
1	100					
2	180					
3	240					
4	280					

- a) Complete the table. (16 marks)
- b) Given the competitive price of KShs 40 per Kg. of Maize, what is the profit maximizing quantity of output? (4 marks)
5. Discuss various sources of risks in agriculture and describe methods of managing risks and uncertainty in agricultural production. (20 marks)