

2425/103  
AGRICULTURAL ECONOMICS I  
AND EXTENSION  
Oct/Nov. 2010  
Time: 3 hours

THE KENYA NATIONAL EXAMINATIONS COUNCIL

DIPLOMA IN AGRICULTURE  
MODULE I

AGRICULTURAL ECONOMICS I AND EXTENSION

3 hours

INSTRUCTIONS TO CANDIDATES

*You should have the following for this examination:*

- Answer booklet;*
- Scientific calculator;*
- Drawing instruments.*

*This paper consists of TWO sections A and B.*

*Answer a total of FIVE questions: at least THREE from section A and TWO questions from section B.*

*ALL questions carry equal marks.*

*Maximum marks for each part of a question are as shown.*



This paper consists of 3 printed pages.

Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.

SECTION A

Answer any THREE questions from this section.



1. (a) Explain four ways that can be used to improve labour productivity. (10 marks)
- Handwritten notes:* - Improving working environment → training; - Motivating the labourers → using modern technology; - use of machines
- (b) When the price of commodity X is Ksh 50, the demand for it is 100 units and its supply is 200 units. When the price of commodity X changes to Ksh 30, its demand shifts to 180 units and the supply changes to 120 units.

For commodity X, determine the elasticity of:

- (i) demand;  
(ii) supply.

P <sub>1</sub>	d <sub>1</sub>
50	100
30	180

*Handwritten calculations:*

$$E_d = \frac{Q_2 - Q_1}{Q_2 + Q_1} \times \frac{P_1 - P_2}{P_1 + P_2}$$

10  
19

- (c) Determine what the type of elasticity in both b(i) and (ii), *affect*. (10 marks)
2. (a) Explain the factors that influence the demand of a commodity. (10 marks)
- Handwritten notes:* - State of advertisement → Taste and preference → price expectation; - price of substitute → level of income
- (b) Describe the characteristics of variable inputs in a production function. (5 marks)

*Handwritten note:* Weather condition

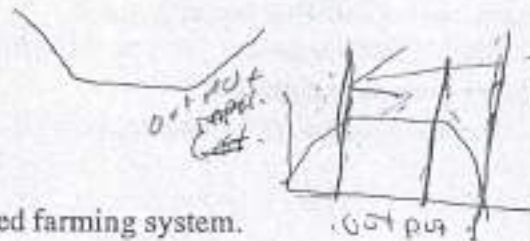
- (c) Explain the factor-factor relationship as it applies in farm enterprise combination. (5 marks)

3. (a) Explain the cyclical nature of agricultural production. (5 marks)

*Handwritten numbers:* 20, 15, 35

- (b) By the use of illustrations, explain the following terms:

- (i) increasing returns;  
(ii) constant returns;  
(iii) decreasing returns;  
(iv) zero returns.



*Handwritten calculations:* 0.25, 0, 19, 10, 24, 33, 40

- (c) Highlight three features of a mixed farming system. (3 marks)

4. (a) State the role of commercial banks. (8 marks)

- (b) Explain the term "social capital" in production context. (12 marks)

5. (a) Explain the factors that may lead to the formation of a state or public owned business firm. (16 marks)

- (b) Differentiate the term "economies of scale" from "Dis-economies of scale". (4 marks)
- Handwritten notes:* Difficult to be managed Economies of scale; Dis-economies of scale

## SECTION B

*It is scientific* Answer any TWO questions from this section.  
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6. (a) Highlight the importance of Rural and Urban Sociology in extension. (5 marks)
- (b) Describe the characteristics of rural societies in Kenya. (10 marks)
- (c) State the indicators of social change in a society. (5 marks)
7. (a) Explain how professional ethics may influence attitude change in a farming community. (10 marks)
- It is* (b) Explain the philosophy under which extension education operates. (10 marks)
8. (a) Describe the functions of an extension agent. (10 marks)
- (b) Discuss **five** advantages and **five** disadvantages of individual extension approach. (10 marks)

