2425/103 AGRICULTURAL ECONOMICS I AND EXTENSION EDUCATION June/ July 2016 Time: 3 hours





## THE KENYA NATIONAL EXAMINATIONS COUNCIL

# DIPLOMA IN AGRICULTURE MODULE I

AGRICULTURAL ECONOMICS LAND EXTENSION EDUCATION

3 hours

#### INSTRUCTIONS TO CANDIDATES

You should have the following for this examination:

- Non-programmable scientific calculator:
- Answer booklet.

This paper consists of TWO sections; A and B.

Answer a total of FIVE questions taking at least TWO questions in section A, and at least TWO questions from section B in the answer booklet provided.

All questions carry equal marks.

Maximum marks for each part of a question are indicated.

Candidates should answer the questions in English.

This paper consists of 4 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: AGRICULTURAL ECONOMICS I

Answer at least TWO questions in this section.

- 1. (a) The price of an agricultural commodity Y is Ksh. 40 per unit and demand for this product is 20 units. The price rises from Ksh. 40 to Ksh. 50 per unit and demand decreases to 15. Calculate the elasticity coefficient of demand. (5 marks)
  - (b) Describe the determinants of price elasticity of demand.

(10 marks)

(c) Describe the characteristics of a mixed economy.

(5 marks)

Z. (a) Table I shows the price and corresponding quantities of an agricultural commodity. Use the information to plot a supply curve.

Table I

| Price (Ksh) | Quantity (kg) |  |  |  |  |
|-------------|---------------|--|--|--|--|
| 20          | 10            |  |  |  |  |
| 2.5         | 20            |  |  |  |  |
| 30          | 30            |  |  |  |  |
| 35          | 40            |  |  |  |  |
| 40          | 50            |  |  |  |  |
| 45          | 60            |  |  |  |  |
| 50          | 70            |  |  |  |  |

(4 minikis)

- (b) From the curve obtained in 2(a):
  - (i) state the law demonstrated;
  - (ii) highlight the factors that can shift the curve.

(10 marks)

(e) Highlight any six characteristics of labour.

(6 marks)

- (a) Explain any four factors that are considered in selecting a particular type of farming system.

  (8 marks)
  - (b) Explain any four functions of commercial banks.

(4 marks)

(c) Explain any four characteristics of agricultural products.

(8 marks)



(a) Table II shows the relationship between input and output.

Table II

| 1 | Input (X)  | 0 | 10 | 20  | 30  | 40  | 50  | -60 | 70  | 80  | 90  |
|---|------------|---|----|-----|-----|-----|-----|-----|-----|-----|-----|
|   | Output (Y) | 0 | 40 | 100 | 150 | 180 | 220 | 240 | 250 | 250 | 240 |

- (i) Calculate the Average Physical Product (APP) at each level of production.
- (ii) Plot a production function curve.
- (iii) Describe the shape of the curve obtained in 4 a(ii) above.

(10 marks)

(b) Use the information provided in table III to answer the questions that follow.

Table III

| Output        | 0  | 1  | 2  | 3  | 4  | 5  | 6   |
|---------------|----|----|----|----|----|----|-----|
| Fixed cost    | 10 | 10 | 10 | 10 | 10 | 10 | -10 |
| Variable cost | 0  | 9  | 12 | 15 | 20 | 30 | .42 |

Calculate:

- (i) Total Cost (TC);
- (ii) Average Variable Cost (AVC).

(7 marks)

- (c) Explain the following product relationships:
  - (i) joint product;
  - (ii) supplementary product;
  - (iii) complementary product.

(3 marks)

#### SECTION B: EXTENSION EDUCATION

Answer at least TWO questions from this section.

5. (a) Highlight the importance of social institutions to extension work.

(5 marks)

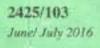
(b) Give any five basic elements of culture.

(5 marks)

(c) Describe five forms of social interactions.

(10 marks)

CONTINUES - CONTINUES - STORY





Turn over