

2922/105  
HUMAN ECOLOGY AND  
ECONOMICS  
June/July 2023  
Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL

DIPLOMA IN ENVIRONMENTAL SCIENCE AND TECHNOLOGY

MODULE I

HUMAN ECOLOGY AND ECONOMICS

3 hours

**INSTRUCTIONS TO CANDIDATES**

*You should have the following for this examination:*

*Answer booklet;*

*Non-programmable scientific calculator.*

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

*Answer ALL the questions in section A and any THREE questions from section B in the answer booklet provided.*

*Each question in section A carries 4 marks while each question in section B carries 20 marks.*

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

*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 (40 marks)**

*Answer ALL the questions in this section.*

1. With the aid of a diagram, describe a situation whereby a change in price does not cause change in quantity demanded. (4 marks)
- ✓ 2. State any **four** factors which influence the location of a food production facility. (4 marks)
3. (a) Define 'delocalisation of firms'. (2 marks)
- ✓ (b) Match the following levels of production with the correct statement. (2 marks)

Statement	Level
Shelling/Manufacturing	Tertiary
Nursing	Secondary

4. State **four** methods of price determination in the market place beside the forces of demand and supply. (4 marks)
5. Table I represents quantity of loaves of bread demanded in a given school by students at different prices in a day. Draw a demand schedule for loaves. (4 marks)

Table I

Price (Kshs.)	Quantity of loaves demanded per day
5	100
15	50
20	30
25	10
30	5

6. List **four** forms of utilities derived from a good / service at a particular time. (4 marks)
7. (a) Define 'socialization' as used in functional theory. (2 marks)
- (b) State any **two** types of socializations that take place in a person's adult life. (2 marks)

8. (a) Define 'spirituality' as used in social systems. (2 marks)
- (b) State any **two** basic functions of spirituality to individuals. (2 marks)
9. Using a diagram, describe scapegoating conflicted relationship in a family system. (4 marks)
10. Outline the first **four** stages of forming a formal group in a society. (4 marks)

**SECTION B (60 marks)**

*Answer any **THREE** questions from this section.*

11. (a) Using labelled diagrams, describe the difference between open system and closed system as used in general systems theory. (4 marks)
- (b) Explain any **five** benefits of settlement schemes in Kenya. (10 marks)
- (c) Explain any **three** factors that hinder the growth of urbanization in Kenya. (6 marks)
12. (a) Explain the **two** dimensions along which stratification takes place in a society. (10 marks)
- (b) Explain any **five** benefits of stratification in a society. (10 marks)
13. (a) (i) Define 'free market system'. (2 marks)
- (ii) Describe the economic benefits that accrue to a country engaging in a free market system. (10 marks)
- (b) (i) Distinguish between maximum price controls and minimum price controls. (4 marks)
- (ii) Explain any **two** effects of minimum price controls to an economy. (4 marks)
14. (a) Define each of the following:
- (i) occupational mobility; (2 marks)
- (ii) geographical mobility. (2 marks)
- (b) Describe **five** benefits of mobility of factors of production in economic development. (10 marks)

- (c) (i) Define the term 'isoquant'. (3 marks)
- (ii) Use the marginal rate of technical substitution to fill table II. (3 marks)

Table II

L	K	MRTS <sub>L,K</sub>
1	10	-
2	7	?
3	5	?
4	4	?

15. (a) State the components of measuring national income by using the income approach method. (5 marks)
- (b) With the aid of a diagram, describe the circular flow of income assuming it is a two sector closed economy. (10 marks)
- (c) State any **five** negative effects of inflation on the living standards of people. (5 marks)

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