

443/1  
AGRICULTURE  
PAPER 1  
JULY/AUGUST 2009  
TIME: 2HOURS

## THE BARINGO - KOIBATEK DISCTRIC

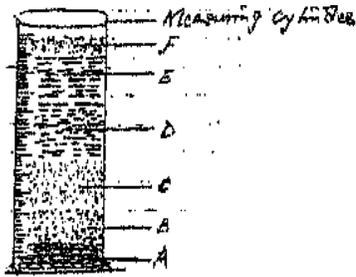
### EDUCATOPMA IMPROVEMENT EXAMINATIONS Kenya Certificate of Secondary Education.

1. Give **four** conditions that lead to small scale farming. (2mks)
2. State **four** properties of soil that are influenced by its texture. (2mks)
3. Give **three** roles of Micro- organisms in the soil that are beneficial to Crops. (1 ½ mks)
4. Define the following terms as used in the pasture establishment. (1mk)
  - (a) Under sowing.....
  - (b) Over sowing.....
5. (a) Give **four** reasons why vegetative propagation is considered more important than seed propagation in planting oranges (2mks)  
(b) Beside planting materials, name the materials which one would use when budding. (1 ½ mks)
6. Give **four** scientific aspects of agriculture (2mks)
7. Describe the process of harvesting sugar cane (2 ½ mks)
8. State **two** methods which can be used to detect mineral nutrients efficiency in crops. (1mk)
9. List **four** varieties of beans (*Phaseolus vulgaris*) grown in Kenya for dry beans production (2mks)
10. Mention **two** forms in which a farmer can obtain on agricultural credit (1mk)
11. What is Gross Domestic product(GDP) as used in agricultural economics? (1mk)
12. State **two** reasons why it is not recommended to weed bean on a wet weather. (1mk)
13. (a) State three methods of controlling weeds in a pure grass pasture. (1 ½ mks)  
(b) Give **four** benefits of topdressing in the management of pasture grass. (2mks)
14. Give reasons for practicing minimum tillage. (2mks)
15. Give **three** types of product - product relationships in production economics. (1 ½ mks)
16. State **five** roles of a farm manager. (2 ½ mks)

**SECTION B (20MARKS)**

**Answer all the questions in this section in the spaces provided.**

17. The following is the results of a soil sedimentation experiment performed by agriculture students. Study it and answer the following questions.



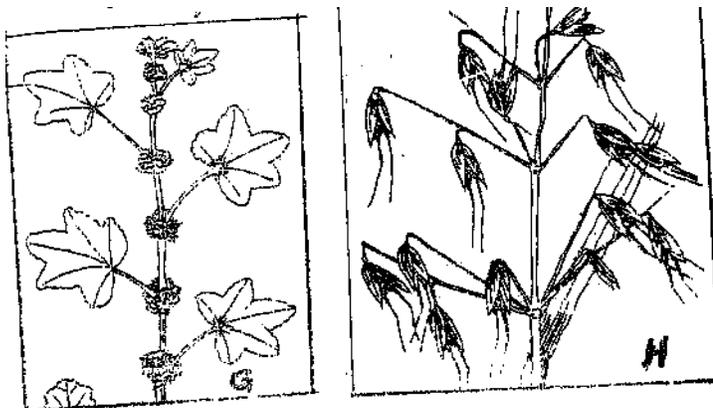
(a) In the above diagram identify the following parts labelled A, B, and F. (1 ½ mks)

- A.....
- B.....
- F.....

(b) State four importance of the part labeled F in the soil (2mks)

(c) Give an alternative type of experiment to the above that would achieve the same objective. (½ mk)

18. Study the diagrams of **two** weeds below and answer questions that follow.



(a) What is the identity of weeds G and H? (1mk)

- (i) G.....
- (ii) H.....

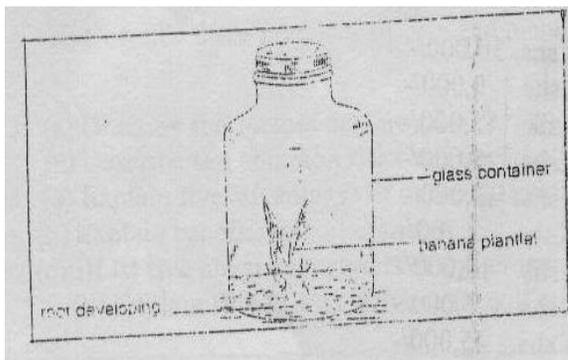
(b) What is the agricultural importance of each of the above weeds? (1mk)

- (i) G.....
- (ii) H.....

- (c) (i) Give an example of a selective herbicide that can be used in control of G. (1/2 mk)
- (ii) Give an example of a selective herbicide that can be used in control of G? (1/2mks)

- 19.(a) What is chitting as used as in crop production? (1/2 mk)
- (b) Describe the procedure of chitting. (2 1/2 mks)
- (c) Give **two** examples of Irish potato diseases. (1mk)

20. Study the diagram below and answer questions that follow.



- (a) What does the diagram above demonstrate? (1/2 mk)
- (b) A part from the plantlet in the container above, what is the other content? (1/2 mk)
- (c) Give **three** materials that comprise part of content named above in (b) (1 1/2 mks)
- (d) Give **three** benefits of the above diagram (1 1/2 mks)

21.(a) What is Equi - marginal returns as used in Agricultural economic? (1mk)

(b) The following is an account of new vision farm for year ending 31/12/2007.

Opening Valuation	Kshs. 30,000/=
Paid wages	Kshs. 9,000/=
Bought Equipment	Kshs. 12,000/=
Sold mature pigs	Kshs. 9,000/=
Bought drugs	Kshs. 13,000/=
Sold maize	Kshs. 2,700/=
Sold Piglets	Kshs. 10,000/=
Closing Valuation	Kshs. 45,000/=

(i) Using the information above; prepared a profit and loss account for New vision Farm. (3 1/2 mks)

(ii) State whether New vision farm made a profit or a loss from the calculations above. (1/2 mks).

**SECTION C (40 MARKS)**

Answer any **TWO** questions in this section in the spaces provided.

- 22.(a) Describe the establishment of Napier grass under the following subheadings
- (i) Land preparation. (5mks)
  - (ii) Planting
- (b) (i) Describe the ideal characteristic of agro forestry tree species. (7mks)
- (ii) Describe **three** practices of care and management of agro forestry tree species. (3mks)
- 23.(a) Describe **ten** factors that are considered in carrying out a farm plan (10mks)
- (b) Describe **ten** common risks and uncertainties in farming (10mks)
- 24.(a) Explain **Five** advantages of overhead irrigation system (5mks)
- (b) Explain benefits of soil drainage. (5mks)
  - (c) (i) List **five** physical methods of soil erosion control and conservation. (5mks)
  - (ii) Explain **five** factors influencing soil erosion. (5mks)