

29.14 AGRICULTURE (443)

29.14.1 Agriculture Paper 1 (443/1)

Name Index Number /.....

443/1
AGRICULTURE
Paper 1
Oct. /Nov. 2008
2 hours

Candidate's Signature

Date

THE KENYA NATIONAL EXAMINATIONS COUNCIL
Kenya Certificate of Secondary Education
AGRICULTURE
Paper 1
2 hours

Instructions to candidates

Write your name and index number in the spaces provided above.

Sign and write the date of examination in the spaces provided above.

*This paper consists of **three** sections: **A**, **B** and **C**.*

*Answer **ALL** the questions in sections **A** and **B** and any **TWO** questions in section **C**.*

***ALL** answers must be written in the spaces provided in this booklet.*

Do not remove any pages from this booklet.

For Examiners' use only

Section	Questions	Maximum Score	Candidate's Score
A	1 - 21	30	
B	22 - 25	20	
C		20	
		20	
Total Score			

This paper consists of 15 printed pages.

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

SECTION A (30 marks)

Answer ALL the questions in this section in the spaces provided.

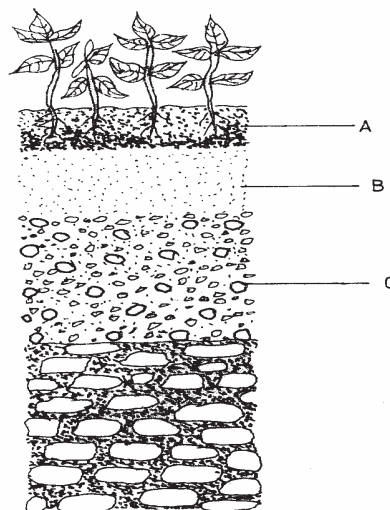
- 1 Give **two** factors which characterise small scale farming. (1 mark)
- 2 State **two** effects of HIV/AIDS on agricultural production. (1 mark)
- 3 Give **two** reasons why farmers are encouraged to practice organic farming. (1 mark)
- 4 Distinguish between soil structure and soil texture. (1 mark)
- 5 State **two** effects of siltation in dams. (1 mark)
- 6 List **two** examples of working capital in crop production. (1 mark)
- 7 (a) Define the term **land reform**. (½ mark)
(b) Give **three** methods of land reforms practised in Kenya. (1½ marks)
- 8 State **three** ways by which land as a factor of production could be made more productive. (1½ marks)
- 9 State **three** functions of the Coffee Board of Kenya. (1 ½ marks)
- 10 Differentiate between the following terms as used in agricultural economics:
 - (a) Fixed input and variable input. (1 mark)
 - (b) Journal and ledger book. (1 mark)
- 11 Give **two** methods used for seed treatment of tree species before planting in agroforestry. (1 mark)
- 12 Give **two** benefits of border planting form of agroforestry to a farmer. (1 mark)
- 13 State **three** factors which may affect the quality of hay. (1½ marks)
- 14 Give **four** factors to consider when choosing a nursery site. (2 marks)
- 15 State **three** methods of controlling insect pests in a crop nursery. (1½ marks)

- 16 Name one vegetative material used to propagate each of the following crops: (2 marks)
- (a) Bananas
- (b) Pineapples
- (c) Irish potatoes
- (d) Pyrethrum
- 17 Give **four** disadvantages of broadcasting as a method of planting. (2 marks)
- 18 State **four** factors that would determine the number of operations to be carried out on a seedbed before planting. (2 marks)
- 19 State **two** ways by which soil pH may affect crop production. (1 mark)
- 20 Give **two** conditions under which blossom end rot disease may occur in tomatoes. (1 mark)
- 21 State four factors that contribute to the competitive ability of weeds. (2 marks)

SECTION B (20 marks)

Answer ALL the questions in this section in the spaces provided.

- 22 The diagram below illustrates a feature observed after digging the soil several metres deep. Study the diagram carefully and answer the questions that follow.



- (a) Identify the feature that the diagram above represents in the study of soil. (1 mark)

(b) Name the parts of the diagram labelled **A**, **B** and **C**. (1½ marks)

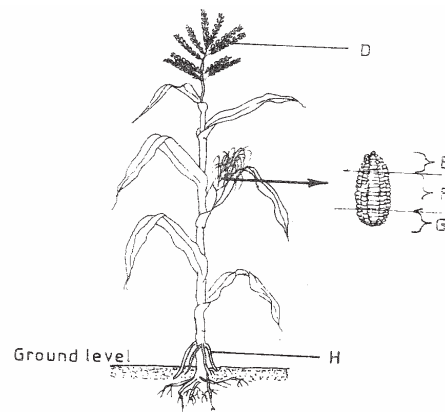
A

B

C

(c) State **two** ways in which the knowledge of the above feature would be of benefit to a farmer. (2 marks)

23 The diagram below illustrates a cereal crop plant and its produce. Study the diagram carefully and answer the questions that follow.



(a) Name **one** disease that attacks the part of the plant labelled **D** in the diagram. (1 mark)

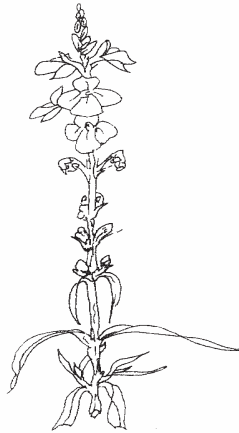
(b) From which section of the produce labelled **E**, **F** and **G** should seeds for planting be obtained? (½ mark)

(c) Give **one** reason for the answer given in (b) above. (1 mark)

(d) State **two** functions of the part labelled **H** in the diagram. (1 mark)

(e) A farmer has a piece of land measuring 90 m by 60 m to plant seeds selected in (b) above at the rate of one seed per hole and a spacing of 90 cm by 30 cm. Calculate the plant population in the whole field if all the seeds germinated. (show your working) (1 ½ marks)

- 24 The diagram below illustrates a parasitic weed. Study the diagram carefully and answer the questions that follow.



- (a) Identify the weed illustrated above. (½ mark)
- (b) Name **two** crops the weed illustrated above commonly attacks. (1 mark)
- (c) State **one** reason why the weed is referred to as a parasitic weed. (1 mark)
- (d) State **two** methods for controlling the weed illustrated above. (1 mark)
- 25 The following is a farm record Mrs Sanda had kept as at 30th June 2006. Study it carefully and answer the questions that follow.

	Ksh
Cash in hand	20 000
Cash at bank	66 000
Buildings	50 000
Disc ploughs	16 000
Debtors	16 000
Working tools	12 000
Bank overdraft	24 000
Creditors	20 000
Loan	50 000
Cattle	40 000
Land	80 000

- (a) Prepare the balance sheet from the above information for Mrs Sanda's farm. (6 marks)
- (b) State **two** benefits of the balance sheet to Mrs Sanda. (1 mark)

SECTION C (40 marks)

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

- 26** (a) State and explain **five** roles of agriculture in economic development of Kenya. (10 marks)
- (b) Describe measures which should be taken to minimise water pollution on a farm. (10 marks)
- 27.** State and explain:
- (a) **Five** advantages of crop rotation. (10 marks)
- (b) **Five** factors which may influence the spacing of crops. (10 marks)
- 28.** (a) Explain why settlement schemes were established in Kenya soon after independence. 10 marks)
- (b) State and explain the various land tenure systems practised in Kenya. (10 marks)