KCSE PREDICTION EXAMS SERIES, 2024

Kenya Certificate of Secondary Education

443/ 1 - Agriculture - Paper 1

(Theory)

T3- 2024 – Time 2 hours

KCSE TRIAL EXAMS, 2024

Name …… **Adm Number**……..

Candidate's Signature ……..…….. **Date** ……

INSTRUCTIONS TO CANDIDATES

- Write your name and index number in the spaces provided above.
- The paper consists of **three** sections A , B and C.
- Answer all questions in section A and B in the spaces provided
- Answer **any two** questions from section C in the spaces provided

FOR EXAMINER'S USE ONLY

Section	Question	Maximum score	Candidate's score
A	1–16	30	
B	17 18 19 20	20	
C	21-23	40	
	TOTAL	90	

KCSE 2024

SECTION A :30MKS

AnswerAll questions in the spaces provide

1. State **two** causes of blossom-end rot in tomatoes (1mark)

.....

.....

2. State **four** harmful effects of weeds in agriculture. (2marks)

.....

.....

3. State **four** characteristics of extensive system of farming. (2marks)

.....

.....

4. State **three** agricultural practices that pollute water ($1^1/_2$marks)

.....

.....

5. (a) What is meant by the term conveyance of water? (1mark)

.....

.....

(b) State **two** ways of conveying water. (1mark)

.....

.....

6. (a) Distinguish between a nursery bed and a seedling bed. (2marks)

.....

.....

(b) State **four** management practices carried out on pasture. (2marks)

.....

.....

.....

.....

7. Give **four** methods of land clearing. (2marks)

.....

.....

.....

.....

8. Give **three** limitations of tissue culture. ($1^1/_2$marks)

.....

.....

.....

9. (a) Distinguish between the budding and grafting (2marks)

.....

.....

10. Name **two** classes of crops based on light duration. (1mark)

.....

.....

11. List **two** tertiary operations carried out during land preparation. (1mark)

.....

.....

12. State **four** disadvantages of shifting cultivation. (2marks)

.....

.....

.....

13. (a) Name **three** methods of pruning. ($1^1/_2$marks)

.....

.....

.....

(b) Name **three** forms of collective land tenure system ($1^1/_2$mks)

.....

.....

.....

14. State **four** cultural methods of pest control (2marks)

.....

.....

.....

.....

15. (a) Define the following terms. (2marks)

i. Intercropping

.....

.....

ii. Mixed cropping

.....

.....

(b) State **two** importance of mulching. (1mark)

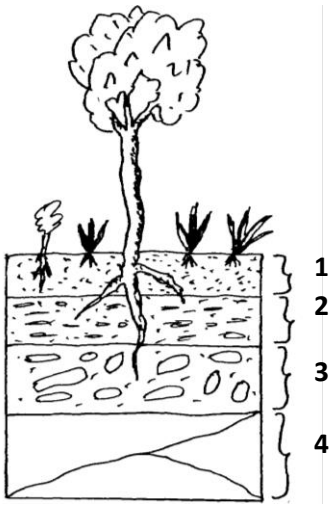
.....

.....

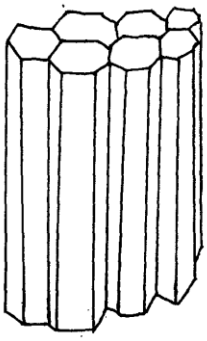
SECTION B (20 MARKS)

Answer ALL questions in this section in the spaces provided

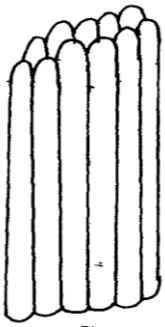
16. The following are diagrams illustrating a soil profile labeled **A** and **two** types of soil structure labeled **B** and **C**. Use them to answer the questions that follow.



A



B



C

(a) Identify the strata of the soil profile labeled **1, 3** and **4** (1 ½ mks)

1……

3……

4……

(b) Identify the types of soil structure labeled **B** and **C** (1mk)

B……

C……

(c) Name a natural process that may change soil structure **B** into structure **C** (½ mk)

……

……

(d) State **two** limitations of the hard layer of soil that develops in layer 2 (1mk)

……

……

(e) List **two** farming practices that may destroy structure B (1mk)

……

……

17. The following are illustrations of methods of vegetative crop propagation labeled D and E. use them to answer the questions that follow

5 **Roots**

D **E**

6

(a)

(b) Identify methods of crop propagation labeled **D** and **E** (1mk)

……

……

(c) Identify parts of **D** labeled **5** and **6** above (1mk)

……

……

(d) When does method E become necessary in crop production (1mk)

……

……

(e) Outline **four** characteristics you would desire part 6 to have (2mks)

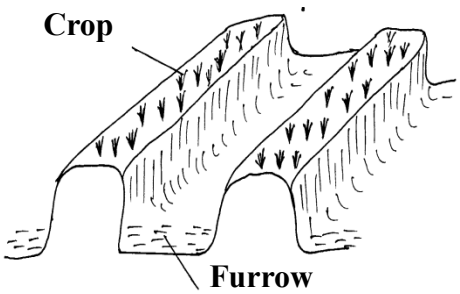
……

……

……

……

18. The following diagram is of a method of draining waterlogged land for crop production. Study it carefully and answer the questions that follow.



(a) Identify the methods of drainage illustrated above (1mk)

……

……

(b) Apart from the above method of drainage, name **two** other methods of draining farm/land (2mks)

……

……

(c) Give **two** reasons for draining farm/land (2mks)

……

……

19. A farmer was adviced to top-dress his maize crop with C.A.N at the rate of 200 kg/ha. CAN contains 20% Nitrogen.

(a) Calculate the amount of Nitrogen applied per hectare (show your working) (3mks)

(b) Name **two** methods the farmer may have used to top-dress the maize crop (2mks)

SECTION C (40 Marks)

Answer any TWO questions in this section in the spaces provided after question 28.

20. a) State and explain **four** ways in which biological agents may enhance soil formation (6 marks)

    b) Discuss **six** reasons on the importance of keeping good and up to date farm accounts in the farm (6 marks)

    c) Discuss why liming is a recommended practice in crop production (4 marks)

    d) Explain the roles of irrigation water in rice production (4 marks)

21. a) Outline the procedure undertaken in inheriting a registered land upon death of the owner (8 marks)

    b) State the **three** harvesting practices of maize (3 marks)

    c) Discuss the processes of large scale chemical treatment of water (9 marks)

22. The following information was obtained from Keheo farm. Study the information and prepare a balance sheet for the farm for the year ended 31st JULY/AUG 2019

Payable tax	-	16,000
Interest on loan	-	24,000
Payable debts	-	14,000
Two year bank loan	-	120,000
Wages	-	24,000
Buildings	-	84,000
Receivable debts	-	12,000
Livestock	-	124,000
Feeds in store	-	12,000
Maize in store	-	42,000
Cash at hand	-	22,000
Movers	-	5,500
Cash in bank	-	52,000

7 marks

ii) Was Keheo farm solvent or insolvent? (1 mark)

b) State **six** advantages of mixed cropping (6 marks)

c) Name the **three** zones of the production function and explain what happens in each of the production zone (6 marks)