



# MANGU HIGH SCHOOL

NAME: \_\_\_\_\_

ADM.NO. \_\_\_\_\_ CLASS: \_\_\_\_\_

43/1  
AGRICULTURE  
PAPER 1  
MOCK EXAM  
JULY 2016  
TIME: 2 HOURS

Kenya Certificate of Secondary Education  
Mock Exam  
Agriculture  
Paper 1

**INSTRUCTIONS TO CANDIDATES**

- (i) This question paper consists of **THREE** sections; A, B and C
- (ii) Answer **ALL** questions in section A and B and **ANY TWO** questions in section C.
- (iii) **ALL** questions should be answered in the spaces provided.

**For Examiner's Use Only**

Section	Question	Maximum Score	Candidates Score
A	1-21		
B	22 -25		
C	26 - 28		
	<b>TOTAL</b>		

This paper consists of 12 printed pages. Check the question paper to ensure that all pages are printed and no question is missing.

*Turn over*

**Section A: (30 Marks)**

Answer **all** questions in the spaces provided

1. Why is it not recommended to apply nitrogenous at the time of planting? (1mk)
  
2. Give **four** reasons for recommending planting of certified seeds (2mks)
  
3. Give a reason for preparing a nursery bed of one metre width (½ mk)
  
4. State **two** effects of water shortage in crop growth (1mk)
  
5. Give **four** factors to consider when siting a nursery bed (2mks)
  
6. State **four** reasons why government may control the price of commodities (2mks)
  
7. State any **two** symptoms of potassium deficiency in crops (1mk)

8. State **three** properties of soil that are influenced by its texture (1½ mks)

9. State **three** benefits of top dressing when managing grass pastures (1½ mks)

10. State **two** methods of breaking dormancy in certain seeds before planting (1mk)

11. State **four** sources of nitrogen in the soil for plants (2mks)

12. State **three** characteristics of shifting cultivation as a system of farming (1½ mks)

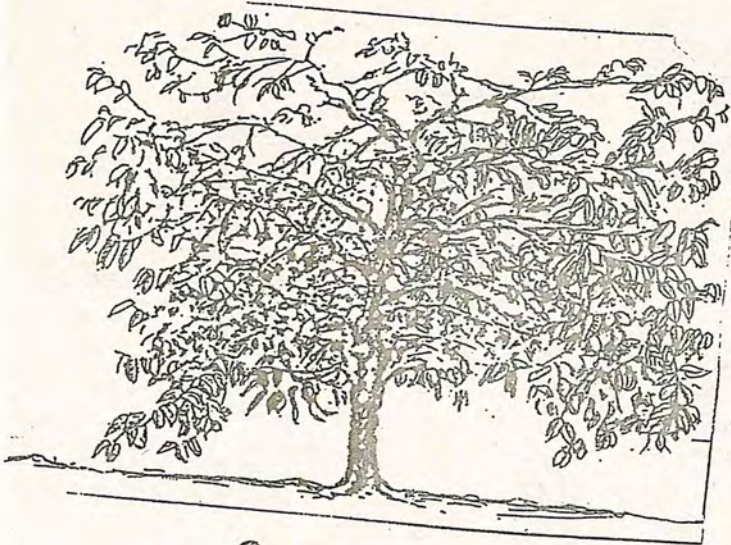
13. State **two** important contributions of horticultural crops to the economy of Kenya (1mk)

14. Outline **four** effects of adding organic matter to a sandy soil (2mks)

8. State three properties of soil that are influenced by its texture (1½ mks)
15. Outline **four** reasons for carrying out minimum tillage (2mks)
16. Give **three** reasons why it is necessary to drain a water logged soil before growing a crop (1½ mks)
17. Give **two** types of water pumps used to lift water in a farm (1mk)
18. Why are leguminous plants preferred during green manure preparation (½ mk)
19. Under what conditions is opportunity cost zero in farming (1mk)
20. Why do lending (credit) institutions, insists on examining farm records of the loan applicant? (1mk)
21. State **four** methods of fertilizer application (2mks)

**Section B: (40marks)**

22. The diagrams labeled C and D below are illustrations of coffee plants which have been established using two different formative pruning systems. Examine the diagrams and answer the questions below.



C



D

- (i) Name the system of pruning illustrated in diagram C and D (1mk)  
C \_\_\_\_\_ D \_\_\_\_\_
- (ii) Outline the procedure of carrying out the pruning system in diagram D (2mks)
- (iii) Give two advantages of the pruning system illustrated in diagram C over the pruning system illustrated in diagram D (1mk)
- (iv) Name two types of pruning that should be carried out after coffee has been established using the system illustrated in diagram C (1mk)

23. The diagram below illustrates common weed specimens found on the farms. Study the diagrams labeled E, F, G and H then answer the questions below.



(i) Identify the specimens labeled E, F G and H (2mks)

E \_\_\_\_\_ F \_\_\_\_\_

G \_\_\_\_\_ H \_\_\_\_\_

(ii) Give a reasons why it is very difficult to control weed E and F using mechanical methods (2mks)

(iii) What would be the effect on milk quality if specimen H is eaten by dairy cows ( 1/2 mk)

24. A group of students carried out an experiment to separate a soil sample into various particle sizes (fractions) without using chemicals. A 2mm sieve was used to sift the soil where all particles smaller than 2mm passed through while the rest was held back. The remaining soil was shaken in a measuring cylinder and allowed to settle as shown in the diagram below.



i) Which particles were held back in the sieve ( ½ mk)

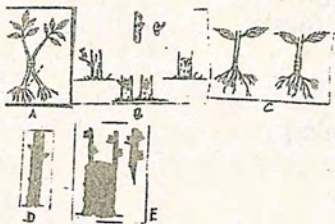
ii) Name the constituents of the soil labeled P,Q,R,S,T in the diagram (2 ½ mks)

P \_\_\_\_\_ Q \_\_\_\_\_  
R \_\_\_\_\_ S \_\_\_\_\_

iii) State two properties of the soil influenced by the physical characteristic illustrated above. (1mk)

iv) If the soil sample described above was a PH of 3, give two ways of raising it to PH6. (1mk)

25. The diagrams A,B,C,D and E below illustrate various methods of grafting. Use them to answer the following questions



i) Identify the methods of grafting labeled A,B,C,D and E. (2 ½ mks)

A \_\_\_\_\_ B \_\_\_\_\_  
C \_\_\_\_\_ D \_\_\_\_\_  
E \_\_\_\_\_

ii) Name the crops that are normally propagated using the following vegetative parts (3mks)

- I. Splits \_\_\_\_\_
- II. Slips \_\_\_\_\_
- III. Stem tubers \_\_\_\_\_
- IV. Stem cuttings \_\_\_\_\_
- V. Crowns \_\_\_\_\_
- VI. Sucker \_\_\_\_\_

**Section C: (40marks)**

Answer any two questions from this section

26.a) Explain the various ways I which soil loses its fertility

(8mks)

b) Give two reasons why each of the following tertiary operations are necessary  
(6mks)

i) Ridging

ii) Leveling

iii) Rolling

c) State six roles of living organisms in soil formation

(6mks)

27. a) Outline the problems that farmers face when marketing agricultural produce  
(14mks)

b) Describe various agencies and institutions involved in marketing of agricultural produce  
(6mks)

28. a) Explain any five cultural methods of controlling weeds  
(10mks)

b) Outline the importance of keeping breeding records in a farm  
(5mks)

c) Outline five ways in which land reform can be implemented in Kenya. (5mks)