

NAME..... INDEX NO.....

443/1
AGRICULTURE
PAPER 1
TIME: 2 HOURS

CANDIDATE'S SIGN.....

DATE.....



Atika School

F r e e O n l i n e A c a d e m y

INSTRUCTIONS TO CANDIDATES:

- (a) Write your **name** and **index number** in the spaces provided above.
- (b) Sign and write the date of examination in the spaces provided above.
- (c) This paper consists of **THREE** Sections **A**, **B** and **C**.
- (d) Answer all questions in Section **A** and **B**
- (e) Answer any **Two** in Section **C**.
- (f) All answers must be written in the spaces provided.
- (g) This paper consists of 11 printed pages.
- (h) Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.

FOR EXAMINER'S USE ONLY

Section	Question	Maximum Score	Candidate's Score
A	1 - 20	30	
B	21 – 23	20	
C	24 -26	40	
Total Score		90	

SECTION A: (30 MARKS)

Answer all questions in this section in the spaces provided.

1. What is organic farming? (½mk)

2. State **two** parameters of expressing a country income. (1mk)

3. Define the following terms as used in agriculture. (1mk)

(i) Pomoculture.

(ii) Olericulture.

4. State **four** characteristics of phosphatic fertilizers. (2mks)

5. State **three** uses of mulch in soil and water conservation. (1½mks)

6. Give **four** factors that affect the rooting of stem cuttings. (2mks)

7. State the functions of the following practices in water treatment. (2mks)

(i) Coagulation.

(ii) Chlorination.

8. State **four** preparations done on the tree seeds after seed collection for planting. (2mks)

9. What is economic injury level of crop pest? (1mk)

10. Give **three** causes of blossom end rot in tomatoes. (1½mks)

11. List **two** effects of relative humidity in crop production. (1mk)

12. Name **three** marketing functions. (1½mks)

13. Give **four** processes that lead to the formation of gullery. (2mks)

14. List **four** soil nutrients rendered unavailable in the soil at soil pH 8.5 and above. (2mks)

15. Give the diameters of the following soil particles. (1½mks)

(i) Sand _____

(ii) Silt _____

(iii) Clay _____

16. Give **two** features of perennial weeds that make them difficult to control. (1mk)

17. List **four** factors that affect the selectivity and effectiveness of herbicide. (2mks)

18. State the law of equip marginal returns. (1mk)

19. Differentiate between the following terms: (2mks)

(i) Oversowing and undersowing.

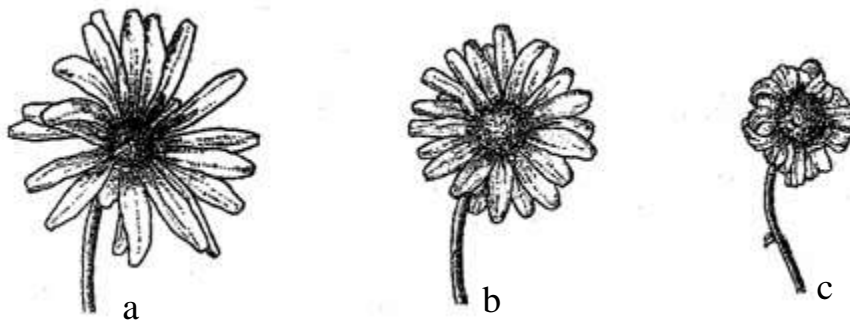
(ii) Complete and partial budget.

20. State **three** characteristics of soil influenced by its texture. (1½mks)

SECTION B: (20 MARKS)

Answer all questions in this section in the spaces provided.

21. Study the illustrations of pyrethrum flowers below and answer the questions that follow.



(a) Which of the flowers is at the right maturity stage for picking and why? (1mk)

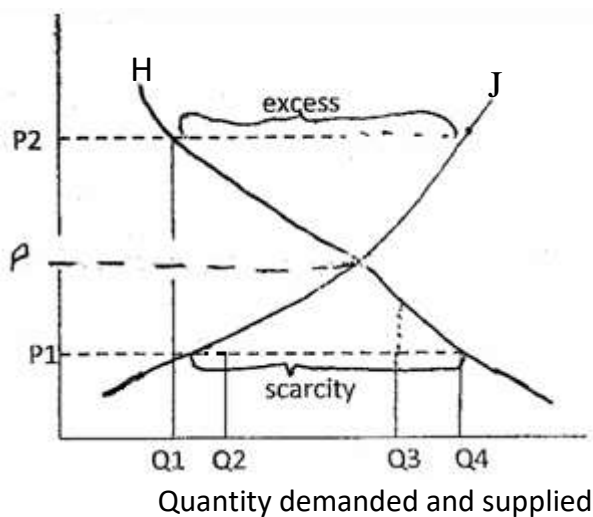
(b) Apart from the stage of flower opening, explain two other factors that affect the pyrethrin content. (2mks)

(c) Explain **three** precautions taken during the harvesting of pyrethrum flowers. (3mks)

- (d) Give **three** advantages of tissue culture as method of crop propagation. (3mks)

- (e) Apart from bananas give an example of crop propagated through tissue culture method. (1mk)

22. Below is a graph showing the relationship between demand and supply in price determination. Study the graph, and then answer the questions below.



- (a) Name the curves labelled **H** and **J**. (1mk)

- (b) State the name given to the point where the two curves H and J intersect. (1mk)

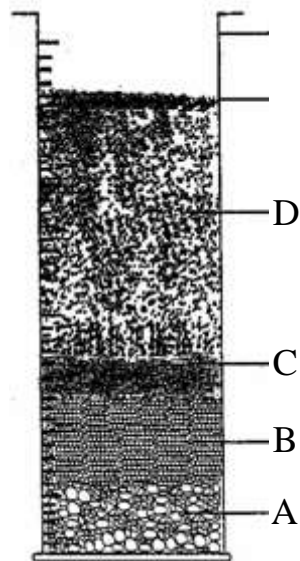
- (c) Give **two** reasons why there is excess supply above P2. (2mks)

(d) Give **two** reasons why there is scarcity below P1. (2mks)

(e) Draw the format of a consumable goods inventory. (3mks)

23. Use the diagram below to answer the questions that follow:

50g of garden soil was put in a 250cm³ measuring cylinder and 10g of sodium carbonate added. The content was shaken and allowed to stand for an hour and observation made.



(a) What was the aim of the experiment? (1mk)

SECTION C: (40 MARKS)

Answer any two questions from the section.

24. Study the information below extracted from Juma's farm records on 31/12/2013 and answer the questions that follow:

Extract	Value Ksh.
5 milking cows	300,000
Four hundred layers	250,000
20 goats	80,000
Debts payable to: cooperative society	20,000
Building and structures	600,000
Loan from bank	300,000
Bonus payable to workers	10,000
Cattle feed in store	10,000
Animal drugs in store	4,000
Debts receivable	18,000
Breakage to repair	30,000
Cash at hand	20,000
Cash in bank	30,000
Spraying equipment in store	12,000

- (a) Prepare a balance sheet for Juma's Farm using the information above. (11mks)
- (b) Suggest whether the business is solvent or insolvent. (1mk)
- (c) Outline **four** advantages of co-operative tenure system. (4mks)
- (d) Give **four** disadvantages of non-capped multiple stem pruning system in coffee. (4mks)
25. (a) Explain the advantages of agro forestry. (5mks)
- (b) State **five** advantages of vegetative propagation in crop production. (5mks)
- (c) Discuss the effects of late defoliation of fodder. (5mks)
- (d) Explain factors which influence the supply of a commodity. (5mks)
26. (a) Explain why green manure is not commonly used in the farm. (5mks)
- (b) Describe the importance of nursery in crop production. (5mks)
- (c) Describe the different types of micro-catchments used in water conservation. (5mks)
- (d) Explain the function of farmer co-operative societies. (5mks)
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