

# FORM 3 TERM 3 APRIL 2022

## AGRICULTURE PAPER 1

### SECTION A

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

1. **Outline three reasons for treating water for use in the farm** ( 1 ½ mks)
2. **Give four advantages of carrying out minimum tillage** (2mks)
3. **State four disadvantages of communal land tenure system** (2mks)
4. **Name any four surface sources of water in the farm** (2mks)
5. **State four important reasons of keeping farm records in the farm.....** .(2mks)
6. **Give two ways in which organic mulch helps in the control of soil erosion** (1mk)

7. Name any two examples of farm structures that are used in crop production (1mk)
8. Give two reasons for siting a nursery bed at a well sheltered place (1mk)
9. State four reasons as to why burning is not recommended in land ..... (2mks)
10. Give four advantages of using certified seeds during planting..... (2mks)
11. Why is it necessary to allow freshly cut sorghum (Columbus grass) to wilt before Feeding it to livestock? (1mk)
12. Give two roles of nitrogen in maize production (1mk)
13. Distinguish between the terms hybrid and composite as used in maize breeding ( 1mk)
14. Outline three important aspects of rainfall a farmer should consider when growing crops (1 ½ mks)

15. State two harmful effects of strong wind in agricultural production (1mk)

16. Give two ways in which cover crops help to conserve water in the soil (1mk)

17. Give a reason for carrying out each of the following management practices on a tree nursery

(a) Pricking out (1 mk)

(b) shading (1mk)

18. Outline two ways of controlling damping off disease of cabbages (1mk)

19. State four effects of pests with both piercing and sucking mouth parts on crops (2mks)

20. Name four natural factors that may influence soil erosion (2mks)

21) What do you understand by the term opportunity cost ( 1 mk)

**SECTION B ( 20 MARKS)**

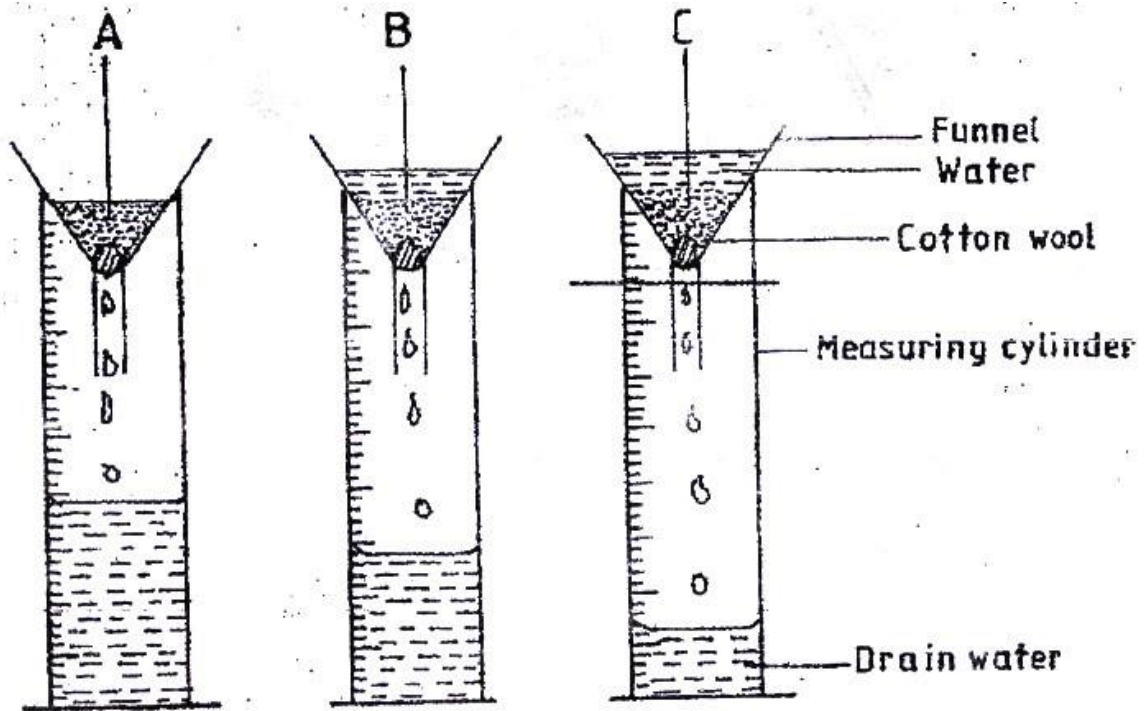
*Answer ALL the questions in this section in the spaces provided*

**22) The diagram below illustrates a maize cob attacked by a disease. Study it carefully and answer the questions that follow.**



- (a) **Identify the disease** ( 1 mk)
- (b) **Apart from maize, give two other crops that may be attacked by the disease** ( 1mk)
- (c) **State two methods of controlling the diseases** (2mks)

23. The diagram below illustrates an experiment on soil. Study it carefully and answer the questions that follow



(a) State the aim of the experiment ( 1 mk)

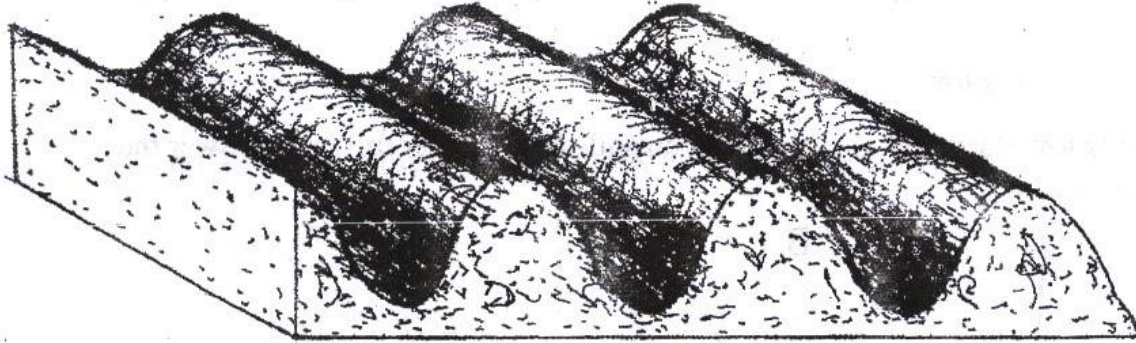
(b) If the volume of water illustrated in the measuring cylinders was observed after one hour, identify the soil samples labeled A and B.

A ( 1/2mk)

B ( 1/2mk)

(c) State two ways in which the soil structure of the soil sample labeled C above can be improved. ( 2mks)

24. The diagram below illustrates a final seedbed after tertiary operation done during land preparation. Study it carefully and answer the questions that follow.



(a) Name the tertiary operation carried out on the seedbed (½mk)

(b) Describe how the tertiary operation named in (a) above is carried out (1 ½ mks)

(c) Give two advantages of planting crops on the final seed bed illustrated above (2 mks)

25. What is the function of each of the following substances in the preparation of compost manure?

(a) Wood ash (1 mk)

(b) Top Soil (1 mk)

(c) Wooden stick (1mk)

(d) Adding manure (1mk)

26. Name the deficient nutrient element in plants showing the following symptoms

(a) Stunted growth, die back of plant tips, leaves roll up and chlorosis along Margins of younger leaves ( 1/2 mk)

(b) Yellowing of leaves appears first lower leaves turn brown and fall prematurely, stunted growth ( 1/2 mk)

(c) Leaf curling, yellowing of leaves, tips and edges of leaves are scorched and have small mottles ( 1/2 mk)

(d) Purpling of leaves, stunted growth, slender stalks and lateral buds remain dormant ( 1/2 mk)

27. (a) Why is the use of the following items essential during the harvesting of tea?

(i) Plucking stick ( 1 mk)

(ii) Woven basket ( 1 mk)

**SECTION:C (40 marks)**

**Answer any TWO questions in this section**

**28. (a) Explain five advantages of vegetative propagation in crop production ( 5 mks)**

**(b) Outline five benefits of organic farming ( 5 mks)**

**(c) Discuss five factors to consider when choosing the type of irrigation system to use in a farm. ( 10 mks)**



**29 a) Describe ten safety precautions that should be taken when using herbicides to control weeds (10 mks)**

**b) Explain five biological agents of weathering (10 mks)**

**30. Describe tomato production under the following sub headings**

**a. Nursery management practices (6mks)**

**b. Land preparation (4mks)**

**c. Transplanting (7mks)**

**d. Harvesting (3mks)**