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FORM 2 TERM 2 AGRICULTURE EXAMINATIONS 2018

1. What is agriculture? (1mk)
2. Give the signs that indicates excess nitrogen in crop. (2mks)
3. List four climatic factors that affects the growth and distribution of crops and livestock. (2mks)
4. State four factors influencing formation of the soil. (2mks)
5. List four soil constituents. (2mks)
6. State two ways in which cultural practices affect agriculture. (2mks)

7. A) List down two tools/equipment used during the handling of cattle during agricultural exhibition. (1mk)

8. Mention two examples of meat goat in Kenya. (1mk)

9. List four characteristics of a dairy cow. (2mks)

10. Give four reasons why the burning of bushes as a method of land clearing should be discouraged. (2mks)

11. Give a reasons why the following operations are carried out in crop production (3mks)

i) Leveling

ii) Rolling

12. State the main source of water on the farm (11/2mks)

13. Name three types of surface irrigation (1½ mk)

14. A farmer was advised to apply of P_2O_5 per hectare of maize at planting time. The phosphatic fertilizer available was single superphosphate containing 20% P_2O_5

a) Calculate how much single superphosphate fertilizer/she should apply in 2 hectares.

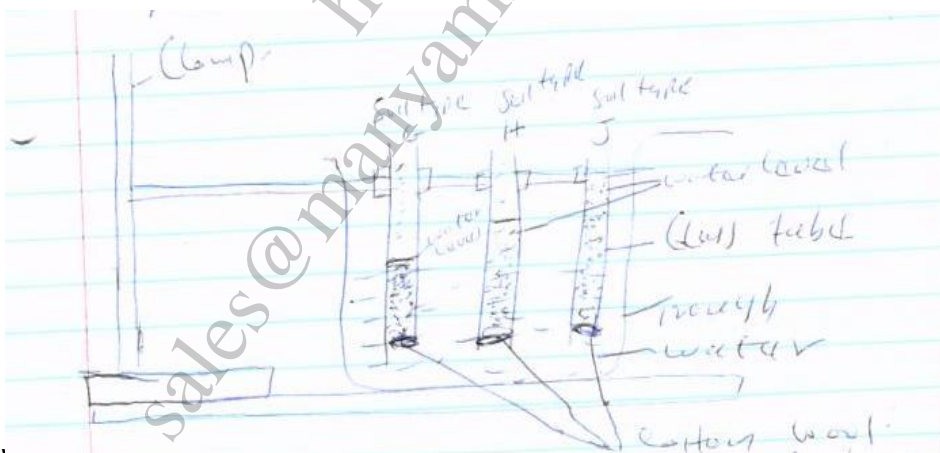
b) Why is it advisable to apply phosphatic fertilizer at planting time. 1mk)

15. What are the characteristics of clay soil? Give your reasons. (2mks)

SECTION B (30MKS)

16.a) List three aspects of light that influence crop growth. 3mks.

b). The diagram below shows an experiment set up using soil type G, H and J. Observations were made after 24hrs, study the diagram and answer the questions that follow.



1. What is the experiment represented above designed to study? 2mks

II. Name the three types of soil G,H and J. (3mks)

III. What is the characteristics texture of soil type G and J 2mks.

IV. State how a farmer would improve the structure of soil type G.

17.a) Define drainage.

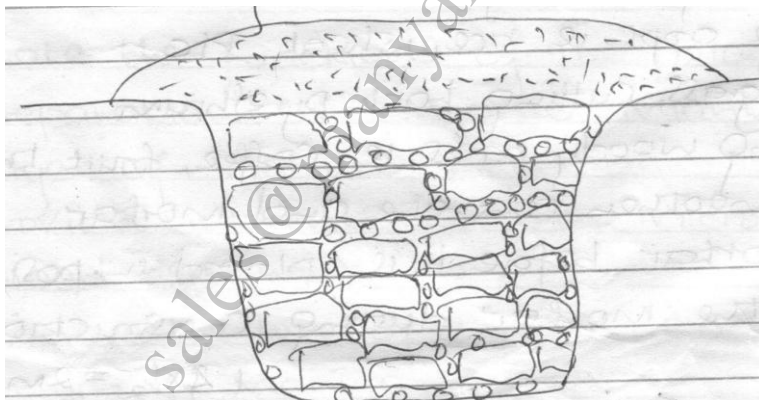
(1mk)

b) What are the causes of poor drainage?

(2mks)

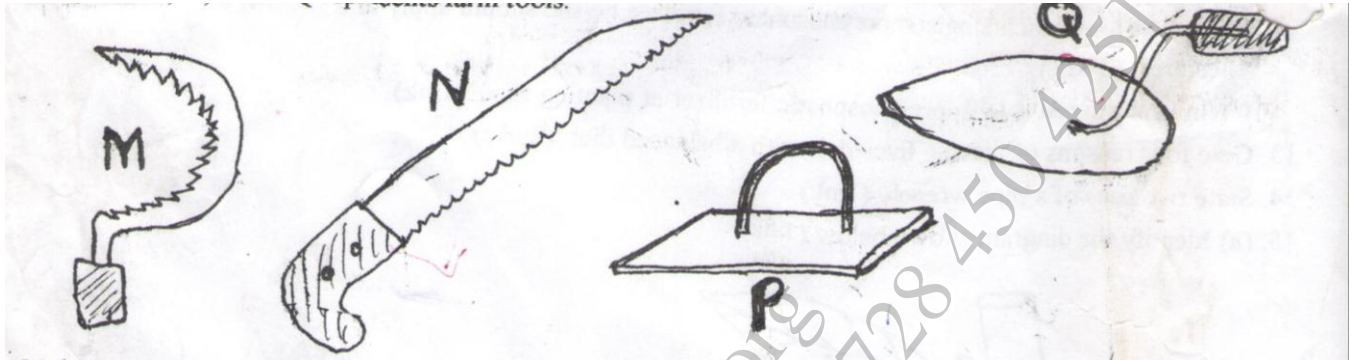
c) Identify the method of sub- surface drainage shown in the diagram below.

(1mk)



d) Other than sub-surface name other methods of draining water logged land. (1mk)

18) Diagram M, NP and Q represents farm tools.



a) Identify the tools

(2mks)

M

N

P

Q

B) Give the use of each of the tools named above.

(2mks)

M

N

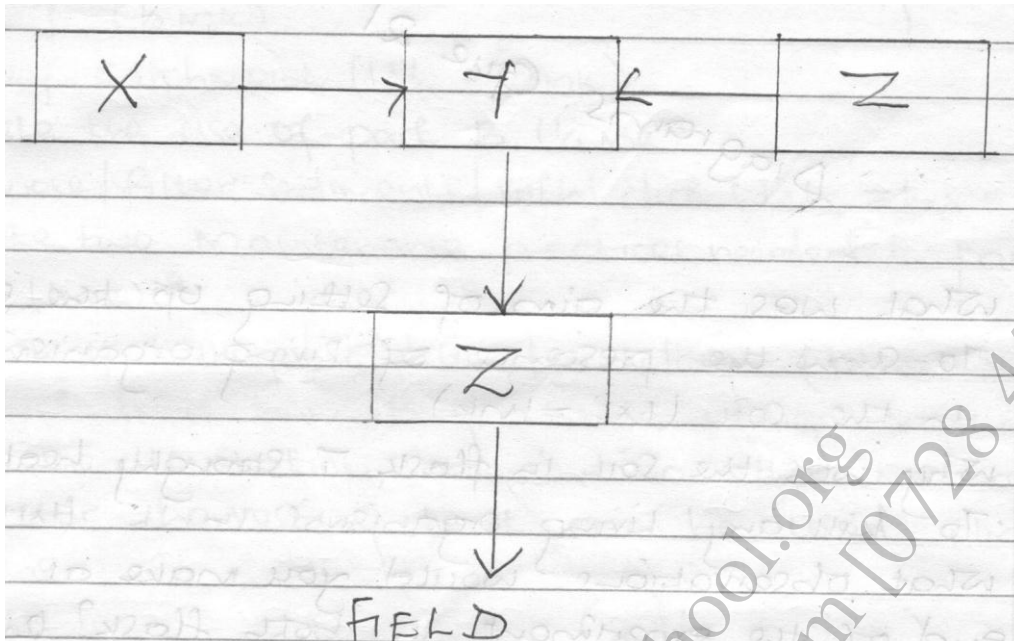
P

Q

C) State two maintenance practices that should be carried out on tools M.

(1MK)

19) Below is an illustration of a method used in preparation of organic manure. Study it and answer the questions that follow.



a) Identify the method used.

(1mk)

b) State the functions of the following in the preparation of organic manure.

(4mks)

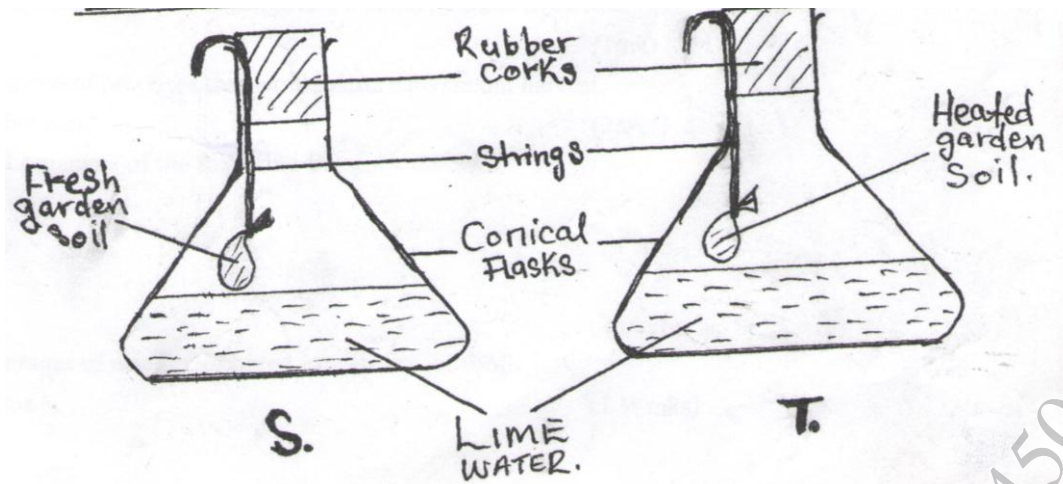
i) Layer of manure (1mk)

ii) Wood ash (1mk)

ii) Top soil (1mk)

iv) A Stick (1mk)

20) Study the diagrams Sand T and answer the questions that follow.



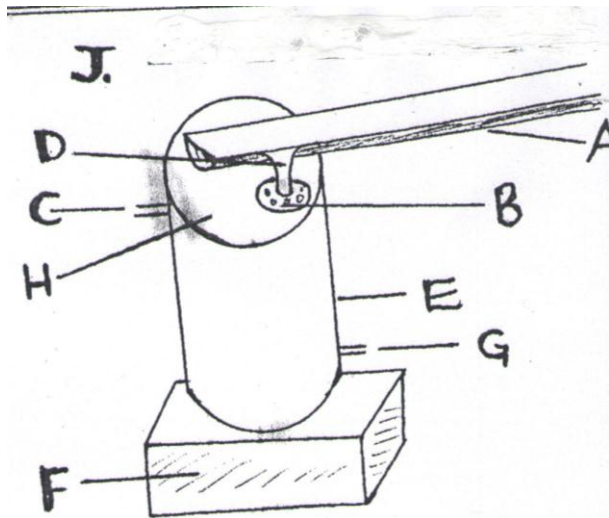
a) What was the aim of setting up the experiment? (1mk)

b) Why was the soil in flask strongly heated? (1mk)

c) What observations would you make at the end of the experiment in both flask? (2mks)

d) Explain the result in flask S. (1MK)

21) The diagram J represents parts of a water harvesting structure. Study it carefully and answer the questions that follow



a) Name the parts a- h

(2mks)

- A
- B
- C
- D
- E
- F
- G
- H

b) Identify the method of water harvesting illustrated in J

1/2MK)

c) State the use of part B

(1/2MK)

d) State two maintenance practices needed in part labeled E

1mk)

e) A part from harvesting water using method shown by the illustration name two other methods of water harvesting that can be used.

(1mk)

SECTION C

22 State the ways in which the soil loses fertility.

(10mks)

b) State how a farmer prevents loss of soil fertility.

(10mks)

23 State the features of good farm records.

(5mks)

b) Describe the uses of farm records.

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AGRI FORM 2 MARKING SCHEME

16. What is agriculture? (1mk)
-It is the art and science of crop and livestock production.
17. Give the signs that indicates excess nitrogen in crop. (2mks)
-Leding/excessive succulency
-Scorching of leaves
-Delayed maturity
-Excessive foliage/Tillering
-Presence of blossom end rot in tomatoes
18. List four climatic factors that affects the growth and distribution of crops and livestock. (2mks)
-Rainfall
-Temperature
-Wind
-Light
-Relative humidity
19. State four factors influencing formation of the soil. (2mks)
-Parent rock material
-Climate
-Topography
-Time
-Biotic factors/organic influences
20. List four soil constituents. (2mks)
-Mineral matter
-Organic matter/humus
-Living organisms
-Soil water/moisture
-Soil air
21. State two ways in which cultural practices affect agriculture. (2mks)
-Some religions abstain from consuming certain foods
-Some communities believe in the quantity of livestock and not necessarily in the quality
-Some communities practice certain types of framing exclusively
22. A)List down two tools/equipment used during the handling of cattle during agricultural exhibition.(1mk)
-Halter
-Rope
-Bull ring and lead stick 2x ½ mks) = 1mk
23. Mention two examples of meat goat in Kenya. (1mk)

-Galla

-Boer

24. List four characteristics of a dairy cow. (2mks)

-Their body are wedge to triangular shaped.

-Have a straight top line

-Have well set apart hindquarter to allow room for the big uder

-Have large and well developed udder with large teats that are well spaced

-Have a large stomach capacity that enables the animal to feed heavily for high milk production

-Are docile with mild temperament $\frac{1}{2} \times 4 = 2\text{mks}$)

25. Give four reasons why the burning of buses as a method of land clearing should be discouraged.(2mks)

-Destruction of plant nutrients

-Destruction of soil micro-organism

-Destruction of farm structure

26. Give a reasons why the following operations are carried out in crop production (3mks)

i)Leveling –Promote uniform germination of seeds.

ii)Rolling-Prevent small seeds from being carried away by wind

-Prevent soil erosion

27. State the main source of water on the farm. (11/2mks)

-Surface water

-Ground water

-rain

28. Name three types of surface irrigation (1 $\frac{1}{2}$ mks)

-Flood

-Furrow

-Basin

29. A farmer was advised to apply of $P_2 O_5$ per hectare of maize at planting time The phosphatic fertilizer available was single superphosphate containing 20% $P_2 O_5$

a)Calculate how much single superphosphate fertilizer/she should apply in 2 hectares.

-20kg $P_2 O_5$ CONTAINED IN 100KG OF SSP

$40\text{kg } P_2 O_5 = \frac{40}{20} \times 100 \times 2 = 400\text{KGS}$

20

Method 1x1 = 1mk

Answer 1x1 = 1mk

b) Why is it advisable to apply phosphatic fertilizer at planting time. 1mk)

For seedling root development

-It is slightly soluble in soil moisture/low mobility thus required near root zone $2 \times \frac{1}{2} = 1\text{mk}$)

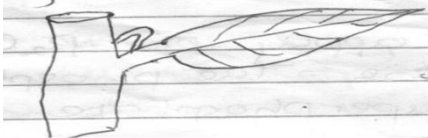
30. What are the characteristics of clay soil? Give your reasons. (2mks)

- Darkish in colour
- Crack when dry and elastic when wet
- Poorly aerated, heavy to till and mould
- High water holding capacity
- Rich in mineral salts. 4 x 1/2 = 2mks)

SECTION B(30MKS)

31. Identify the diagram shown below

(1mk)



-Single leaf stem tea cutting

b)List four factors that would influence the rooting of structure shown in 6a (4mks)

- The temperature of the rooting medium should be warm.
- Light intensity for soft wood, high intensity is required and low light intensity for hardwood
- Oxygen supply to the rooting area should be adequate
- Leaf area for hardwood, no leaves for photosynthesis 4x 1 = 4mks

32. Define drainage.

(1mk)

-It is the removal of excess water form he land rehabilitation of swampy land 1x 1= 1mk)

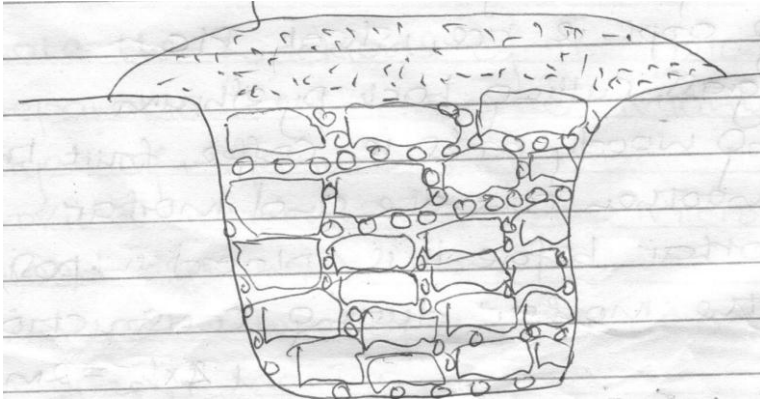
b) What are the causes of poor drainage?

(2mks)

- Too much rainfall on low land
- High water vetention and hold capacity
- Shallow soil profile
- Presence of hard pans
- High water table

c) Identify the method of sub- surface drainage shown in the diagram below.

(1mk)



French drain (1x 1) = 1mk

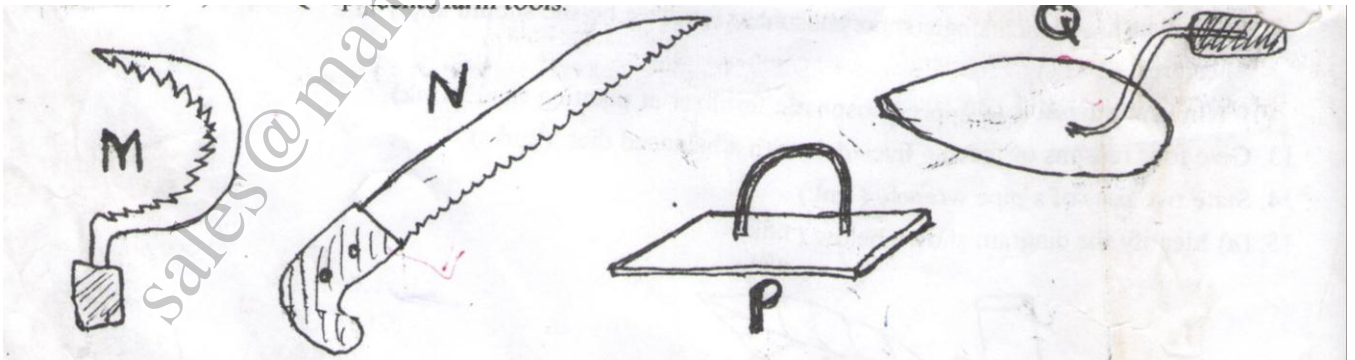
d) Other than sub-surface name other methods of draining water logged land. (1mk)

-Surface irrigation

-Cambered bed

-Planting deep rooting trees with high transpiration rate fo eucalyptus 1x 1= 1mk

33. Diagram M,NP and Q represents farm tools.



a) Identify the tools

(2mks)

M -Sickle

N-Pruning saw

P – Wood float

Q Mason's trowel $4 \times \frac{1}{2} = 2\text{mks}$

B) Give the use of each of the tools named above.

(2mks)

M – Harvesting crops ie rice wheat

-Cutting grass, cutting back pyrethrum

N

-For pruning woody parts ie coffee, fruit trees

P

-Level or smoothen concrete and mortar

-Hold mortar before it is placed in position

Q

-Laying on the mortar during construction $4 \times \frac{1}{2} = 2\text{mks}$

C)State two maintenance practices that should be carried out on tools M.

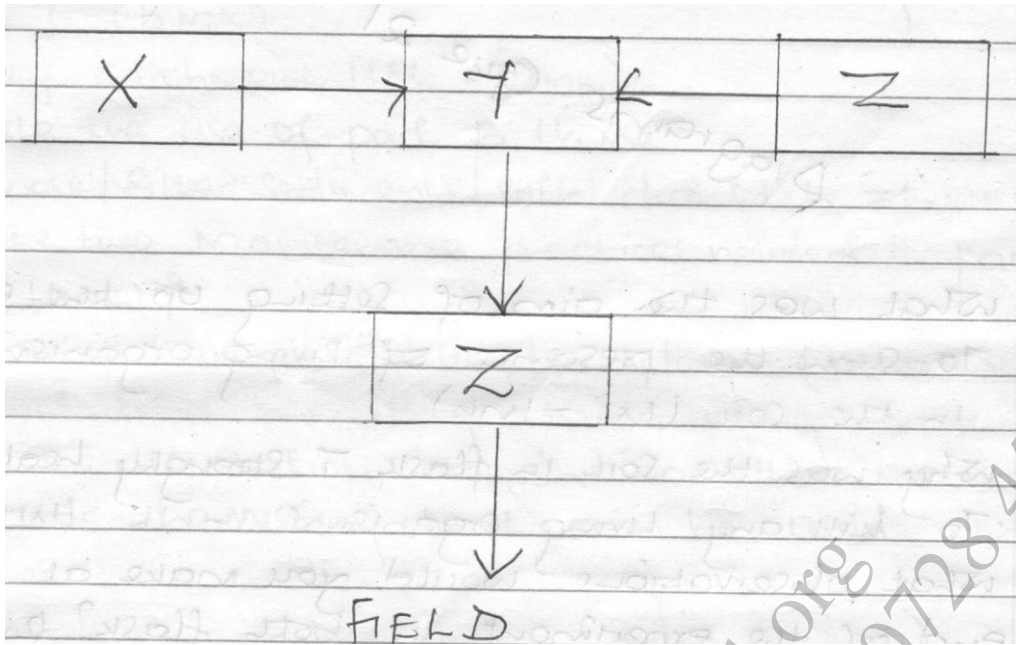
(1MK)

-Replacing broken handles

-Sharpening cutting edge

-Oiling when it storage $2 \times \frac{1}{2} = 1\text{mk}$

34. Below is an illustration of a method used in preparation of organic manure. Study it and answer the questions that follow.



a) Identify the method used. (1mk)

- Four heap system/stack (1x1 = 1mk)

b) State the functions of the following in the preparation of organic manure. (4mks)

i) Layer of manure (1mk)

-Improve the level of phosphorus and potassium in resulting manure

-Neutralise the acidity of the material (1x1 = 1mk)

ii) Wood ash (1mk)

)

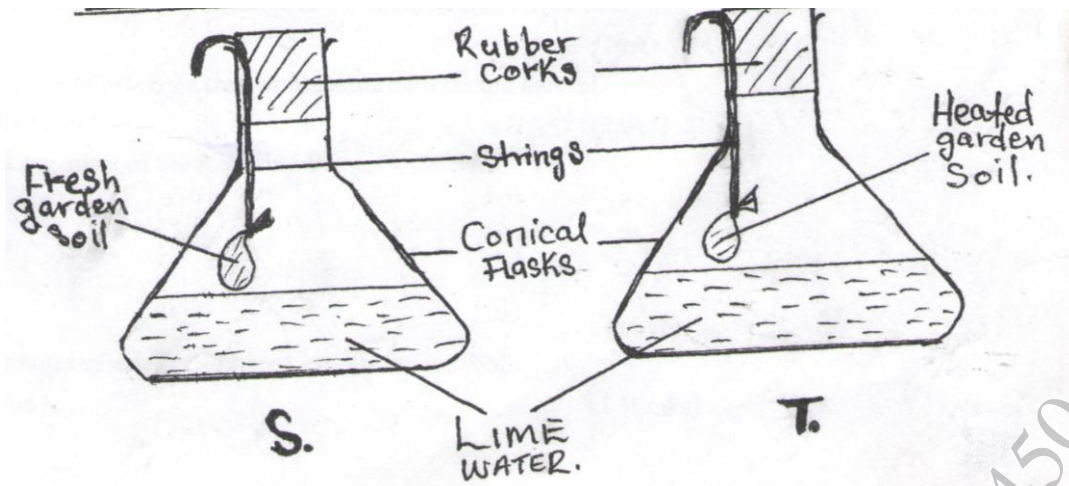
ii) Top soil (1mk)

-Introduces micro-organism necessary for decomposition of the organic matter (1x1 = 1mk)

iv) A Stick (1mk)

-To check temperature with the stick (1x1 = 1mk)

35. Study the diagrams Sand T and answer the questions that follow.



d) What was the aim of setting up the experiment? (1mk)

-To show the presence of living organisms in the solid (1x1= 1mk)

e) Why was the soil in flask strongly heated? (1mk)

- To kill any living organisms in it

c)What observations would you make at the end of the experiment in both flask? (2mks)

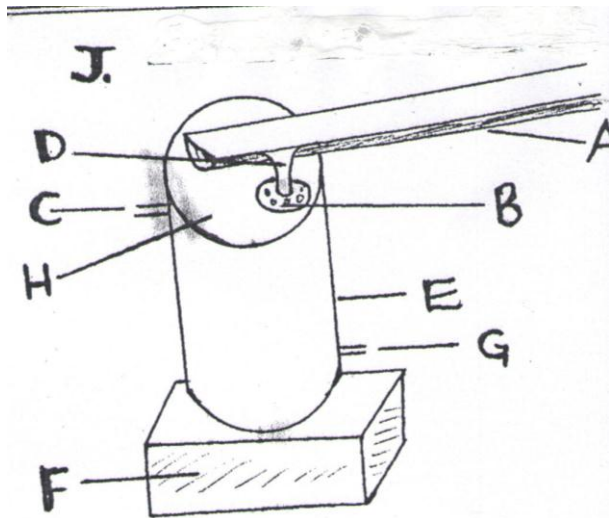
Flask S – Lime water turns milk 1x 1= 1mk

Flask T – Lime water remains clear 1x1 = 1mk

d)Explain the result in flask S. (1MK)

-Lime water turns milk due to production of carbon iv oxide by living organisms during the respiration (1x1 = 1mk)

36. The diagram J represents parts of a water harvesting structure. Study it carefully and answer the questions that follow



a) Name the parts a- h

(2mks)

A - Gutter

B - Filter/ Sieve

C - Overflow pipe

D - Funnel

E - Tank

F - Base

G - Tap outlet

H - Lid top

b) Identify the method of water harvesting illustrated in J

1/2MK)

-Roof catchment 1x ½ = ½ mk

c) State the use of part B

(1/2MK)

-Remove /filter sediments/ solid dirt (1 x ½ = ½ mk

d) State two maintenance practices needed in part labeled E

1mk)

-Repair if leakage/soldering/welding (1x1 = 1mk

f) A part from harvesting water using method shown by the illustration name two other methods of water harvesting that can be used. (1mk)

-Dams

-Wells

-Weirs

-Pond

-Rock catchment

SECTION C

22 State the ways in which the soil loses fertility.

(10mks)

-Leaching

-Soil erosion

-Soil capping

-Formation of hard pans

- Monocropping
- Accumulation of salts
- Excess presence of weeds
- Volatilization

b) State how a farmer prevents loss of soil fertility.

(10mks)

- Crop rotation
- Organic farming
- Mixed cropping
- Mulching
- Use of organic and inorganic fertilizers
- Proper drainage
- Control soil erosion
- Intercropping
- Minimum tillage
- Cultivation of the soil when it has the correct moisture
- Control of soil PH

23 State the features of good farm records.

(5mks)

- Complete
- Derailed
- True not fictitious
- Simple to read and interpreted not complicate
- Legible/readable good land writing
- Strong/ well bound/not torn/durable
- Clean no cancellations
- Relevant to the farming activities (5x 1= 5mks)

b) Describe the uses of farm records.

- Help to compare the performance of different enterprises within a farm or other farms
- Show the history of the farm
- Guide the farmer in planning and budgeting
- Help in assessment of income tax
- Help to determine the value of the farm/determine assets and liabilities
- Help in sharing of profits and losses by partners
- Show whether a farmer is making profit/loss
- Help to support insurance claims

-Provide labour information i.e wages, salaries terminal benefits

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