

MARAKWET WEST DISTRICT

443/1

AGRICULTURE

Paper 1

July/August - 2015

Time: 2 Hours

SECTION A: 30 MARKS

Answer all questions in this section in the spaces provided.

1. State **Four** properties of soil that are influenced by its texture. (2mks)
2. State **Two** factors that would influence the time of planting beans. (1mk)
3. Name **Two** means of applying water to crops by overhead irrigation. (1mk)
4. Give **Five** farming practices that could be used to improve soil structure. (2 ½ mks)
5. State **Two** ways in which pruning helps to control diseases in tomatoes. (1mk)
6. State **Two** ways in which inorganic mulch helps to conserve water in the soil. (1mk)

7. State **Four** benefits of minimum tillage in crop production. (2mks)
8. State **Four** ways of improving labour productivity in a farm. (2mks)
9. State **Two** factors that influence wind erosion. (1mk)
10. State **Three** practices that could be carried out to maximize the use of nitrogen fertilizer in a maize crop. (1 ½ mks)
11. Name **Two** chemical processes of weathering. (1mk)
12. Give **Two** chemical properties used to classify soil. (1mk)
13. Outline **Four** advantages of individual owner operator tenure system. (2mks)
14. List **Four** factors that should be considered when grading a crop produce. (2mks)
15. State **Four** importance of raising cabbage seedlings in a nursery bed. (2mks)
16. Give **Four** desirable characteristics of certified seeds. (2mks)
17. Outline **Two** characteristics of phosphatic fertilizers (1mk)
18. Give **Four** factors that influence the choice of tools and equipment used in primary cultivation. (2mks)
19. List **Four** general symptoms of viral diseases in crops. (2mks)

SECTION B (20 MARKS)

Answer all the questions in this section in the spaces provided.

20. The inventory for millennium farm as of 1st June 2010 was as follows;

Cash at hand	Kshs.5,000
Layers	Kshs.30,000
Dairy cattle	Kshs.120,000
Beans in store	Kshs.7,000
Calves	Kshs.15,000
Building	Kshs.75,000
Machinery	Kshs.95,000
Land	Kshs.200,000

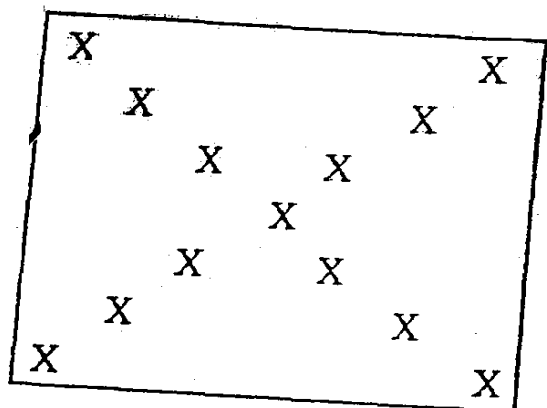
On the same day the following information was obtained from the farmers records.

Bank Loan	Kshs.213,000
Egg sales on credit	Kshs.10,000
Milk sales on credit	Kshs.13,000
Vegetable sales on credit	Kshs.5,000
Farm inputs purchase on credit	Kshs.19,800
Wages payable	Kshs.5,600
Taxes payable	Kshs.750
Cash in Bank	Kshs.20,000
Interest payable	Kshs.2,000

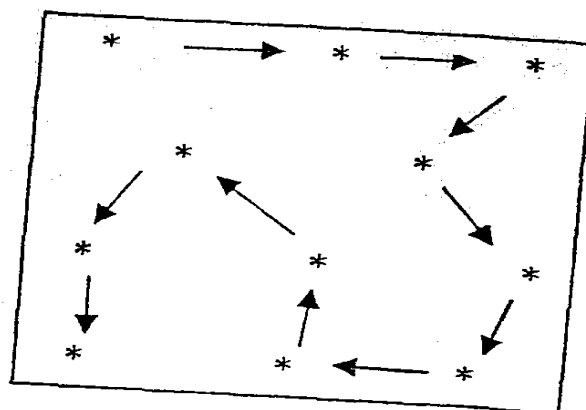
Prepare a balance sheet for the farm

(5mks)

21. Study the following diagrams of soil sampling and answer the following question.



A



B

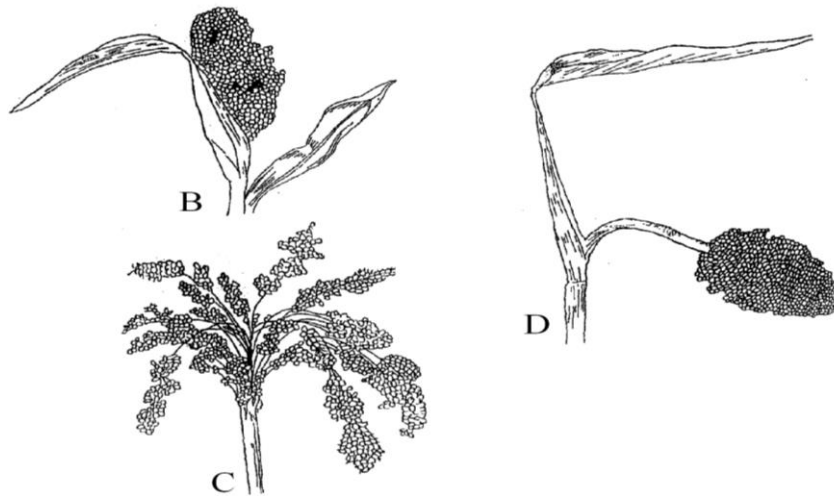
a) Identify the sampling methods labeled

A.....

B.....

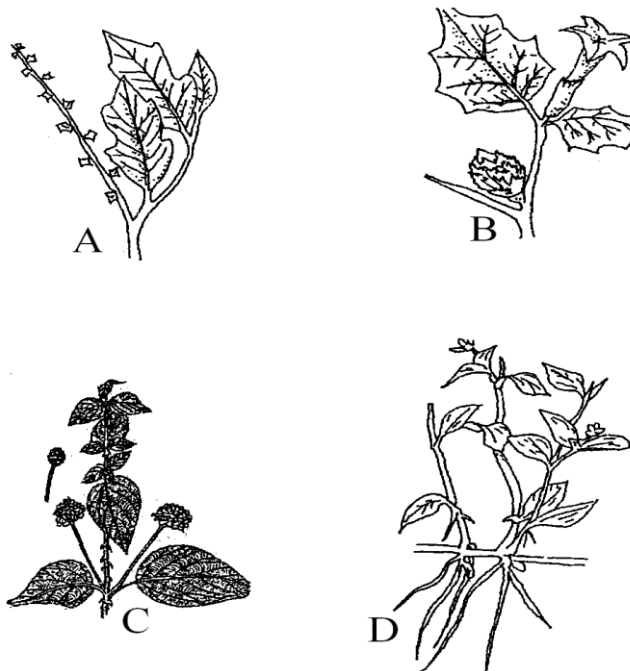
b) Describe the procedure followed during soil sampling. (3mks)

22. Diagrams B, C and D below shows the panicles of three sorghum varieties growing side By side.



- i) Which of the **three** varieties of sorghum is least likely to be damaged by the birds? (½ mk)
- ii) Give a reason for your answer in (i) above. (½ mk)
- iii) State **two** methods that are used in controlling birds in a field of sorghum. (2mks)

23. Study the weeds illustrated below and answer the questions that follow.



a) Identify the weeds shown. (2mks)

- A.....
- B.....

C.....

D.....

b) Give one economic importance of each of the weeds A and B. (2mks)

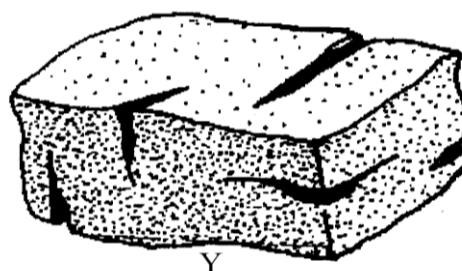
A.....

B.....

c) State the advantage of weed C on the farm. (1mk)

d) Why is weed D difficult to control. (1mk)

24. The illustrations below represents types of soil structures. Study them carefully and answer the questions that follow.



a) i) Identify the soil structures X and Y shown above. (1mk)

ii) Which of the soil structure you have named above is not suitable for growing maize. (½ mk)

iii) Give **one** method of improving the soil structure you have mentioned in (ii) above. (½ mk)

SECTION C (40 MARKS)

Answer any two questions from this section in the spaces provided after each question.

25. a) Describe the establishment of grass pasture from the time the land is ploughed Using a mouldboard or Disc plough to the time the pasture is ready for grazing. (11mks)

b) What are the advantages of mixed grass legume pasture over a pure grass pasture? (9mks)

26. a) Describe ways in which cultural measures control crop diseases. (8mks)

b) Explain the problems of marketing Agricultural produce. (8mks)

c) State how grass cover conserves soil (4mks)

27. a) Explain ways in which the farmer can deal with risks and uncertainties. (8mks)
- b) Explain **Six** factors considered when spacing crops. (12mks)

MARAKWET WEST DISTRICT

443/2

AGRICULTURE

Paper 2

July/August - 2015

Time: 2 Hours

SECTION A: 30 MARKS

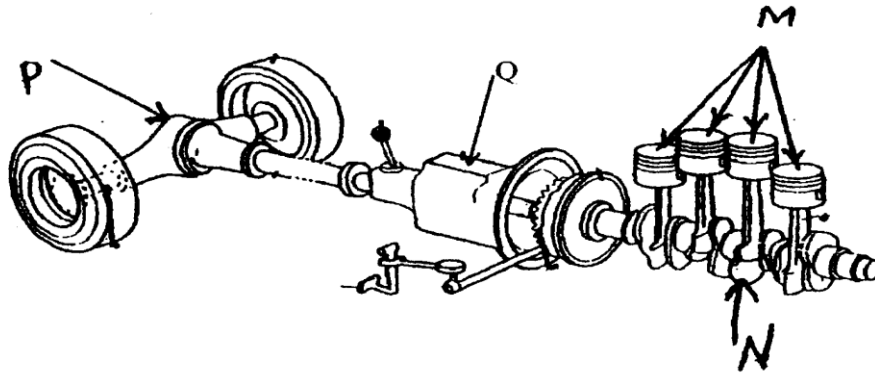
Answer all questions in this section in the spaces provided.

1. State **Four** safety precautions that should be observed in working with workshop tools. (2mks)
2. Apart from high butterfat content, give **Two** other good qualities of jersey breed over Fresian breed. (1mk)
3. State **Four** factors that influence rate of respiration in farm animals. (2mks)
4. Give **Two** feeding characteristics of goats which make them less vulnerable to internal parasites. (1mk)
5. Give **Four** reasons of feeding livestock on a balanced diet. (2mks)
6. Differentiate between crutching and ringing in livestock management. (2mks)
7. Give **Three** reasons that will make a farmer give milk to kids using artificial methods. (1 ½ mks)
8. State **Two** reasons for spreading a Damp proof course (DPC) on foundation during construction of farm buildings. (1mk)
9. Give **Two** signs that indicate a cow has died of anthrax disease. (1mk)
10. Give **Two** factors a farmer would consider when sourcing day-old chicks. (1 ½ mks)
11. State **Four** pre-milking practices in a dairy herd. (2mks)
12. Name **Three** methods of harnessing tractor power. (1 ½ mks)
13. a) Name **Three** hormones that influence milk synthesis. (1 ½ mks)
b) State **Three** factors that make a lactating cow to withhold milk. (1 ½ mks)
14. Mention **Two** uses of spring-tine harrow in the farm. (1mk)
15. State **Four** functions of the Lubrication system in a tractor engine. (2mks)
16. Give **Two** functions of drones in a bee colony (1mk)
17. Give **Two** problems associated with lambing (1mk)
18. Give **Four** pre-disposing factors of foot rot disease in sheep (2mks)
19. Define the following terms (2mks)
 - i) Strategic treatment
 - ii) Tactical treatment

SECTION B (20 MARKS)

Answer all questions

20. Study the illustration of power transmission of a tractor below.



a) Identify and name the parts labeled. (1 ½ mks)

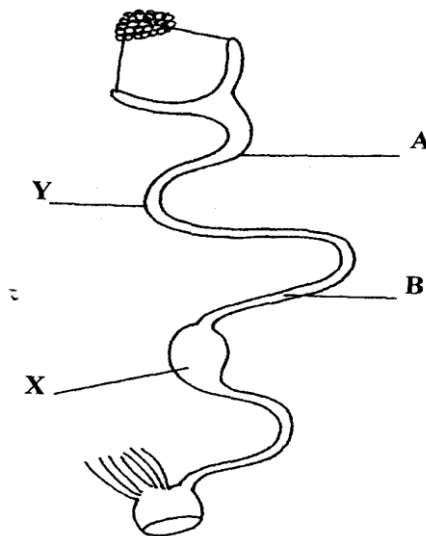
M.....

N.....

P.....

b) State **Three** functions of part Q. (3mks)

21. Below is a diagram representing the reproductive system in poultry. Study it and answer the questions.



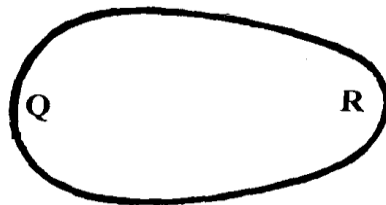
a) Name the parts labeled A, X and Y (1 ½ mks)

A.....

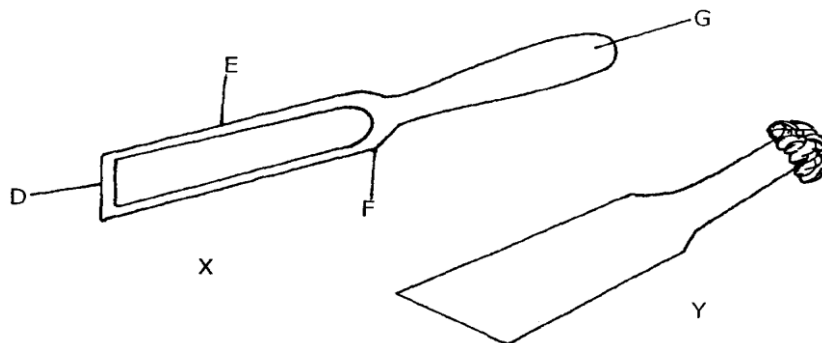
X.....

Y.....

- b) Name **Two** substances added to the egg at section labeled Y. (2mks)
- c) How long does the egg stay at section labeled X. (½ mk)
- d) Below is a diagram of an egg. Which part of the egg represented by letters Q and R would come out first during the laying process. (½ mk)

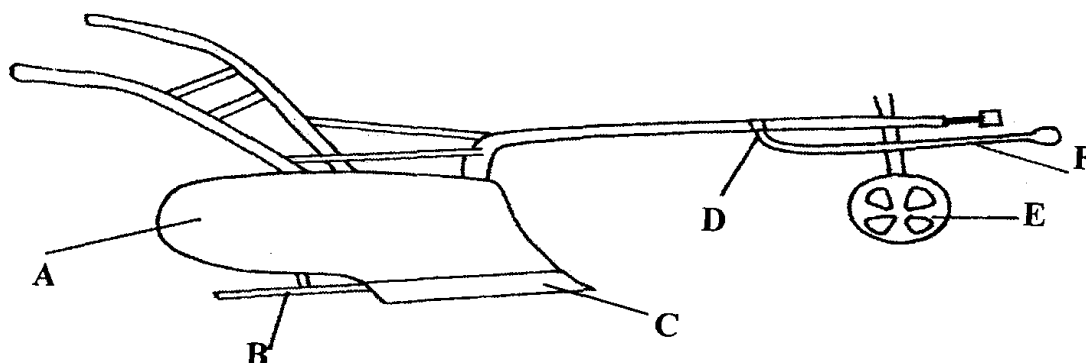


22. Below is an illustration of workshop tools, study them carefully and answer the questions that follow.



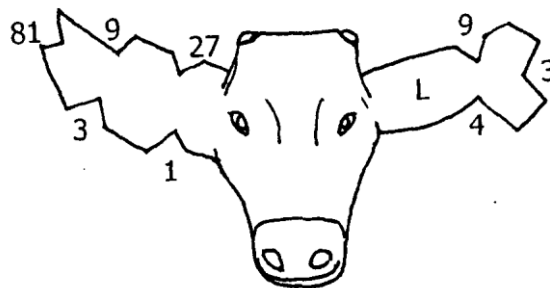
- a) Identify tool X and Y (½ mk)
- b) Name the parts labeled D, E, F and G (2mks)
- c) Name the tool used for sharpening tool X. (½ mk)

23. Study the diagram below of an ox-plough and use it to answer the questions that follow.



- a) Name the parts labelled B, D and F (1 ½ mks)
B.....
D.....
F.....
- b) State the functions of the parts labeled A, C and E (1 ½ mks)
A.....
C.....
E.....
- c) State **Four** advantages of using the Ox-plough over the tractor drawn mouldboard plough (2mks)

24. Study the diagram below carefully and answer the questions that follow. The number on the right ear represents litter number while the left ear number represents the individual number.



- i) Name the livestock routine practice shown above. (½ mk)
- ii) State **Two** reasons why farmers carry out the livestock routine practice shown in the diagram above. (2mks)

SECTION C (40 MARKS)

Answer any Two questions

- 25. a) Explain any Five management practices a beef farmer should carry out during drought season to improve production. (5mks)
b) Explain Five advantages of rearing birds through a battery cage system. (10mks)
- 26. a) Write short notes on foot and mouth disease under the following sub-headings.
 - i) Causal organism (1mk)
 - ii) Mode of transmission (1mk)
 - iii) Symptoms of attack (4mks)

- iv) Control Measures (4mks)
- b) Explain the importance of keeping livestock health. (10mks)
- 27. a) Describe the procedure of establishing a fish pond. (10mks)
- b) Describe the life cycle of a three host tick (1mk)
- c) State the factors that affect digestibility (3mks)