
**KENYA NATIONAL EXAMINATION COUNCIL
COUNTY REVISION MOCK EXAMS 2016**

STAREHE BOYS' CENTRE & SCHOOL
443/1
AGRICULTURE
PAPER 1
TIME: 2HOURS

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MOCK EXAMINATION 2016

443/1

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TIME: 2HOURS

SECTION A (30MARKS)

Answer all questions from this section on the spaces provided.

- 1.State **two** importance of optimum soil temperature. (1mark)
- 2.Give **three** advantages of adding organic matter to sandy soil. (1½mark)
- 3a)
- State **three** reasons for including leguminous crops in green manures. (1½marks)
-
- b)Give **two** reasons stating why use of manure is limited to small scale farming? (1mark)
-
- 4.List **two** effects of the parent material to soil formation. (1marks)
-
- 5.What is the importance of dark soil color? (1mark)
-
- 6.Give **two** reasons for each of the following operations. (2marks)
- a)Rolling the soil.
-
- b)Minimum tillage.
-
- 7.Explain how aeration as a method treats drinking water. (1mark)
-
- 8.Other than expenses during installation why is sub-surface irrigation discouraged? (1mark)
-
- 9.How do farm records help a farmer make insurance claims? (1mark)
-
- 10.Give reasons for each of the following when making compost manure. (1mark)
- a)Addition of topsoil.
-
- b)Addition of ash.
-
- 11.What does a fertilizer grade of 20-0-30 represent? (1mark)
-
- 12a)Differentiate between oversowing and undersowing. (1mark)
-
- b)Give **two** advantages of oversowing. (1mark)
-
- 13.List **three** features of basket granaries. (1½marks)
-
- 14.Differentiate between Gross Domestic Product and Gross National Product. (2mark)
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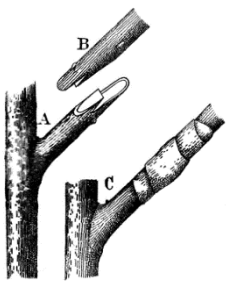
15. List **three** importance of farm budgeting. (1½marks)
16. State **four** effects of late defoliation in pasture management. (2marks)
17. List **three** functions of the Pyrethrum Board of Kenya. (1½marks)
- 18a) What is solifluction? (1marks)
- b) Give **two** roles of terraces. (1mark)
- c) What are “Z” plots? (½marks)
19. Differentiate between competitive products and complementary products. (1mark)
20. What **four** cultural methods should a farmer use to control crop diseases? (2marks)

SECTION B (20MARKS)

ANSWER ALL QUESTIONS FROM

THIS SECTION ON SPACES PROVIDED

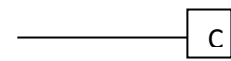
21. Identify the following methods of propagation. (1½marks)



S



T



V

- a) What **three** factors contribute to the success of method S? (1½marks)
- b) On the diagram name parts B and C. (1mark)
- c) Why should the method in T have part U? (1mark)
- d) Name **two** crops propagated by use of method V. (1mark)

22a) Identify the weeds shown below. (1½ marks)



X



Y



Z

- b) What are the harmful effects of weed X and Y respectively? (1mark)
- c) How does weed Z lower production? (1mark)

d) Name **two** herbicides that can control the weeds above.

(1 mark)

23. Study the diagrams of the pests given below and then answer that follow.



J

L

K

a) Identify pest J and L.

(1 mark)

b) Describe the damage caused by pest K.

(1 mark)

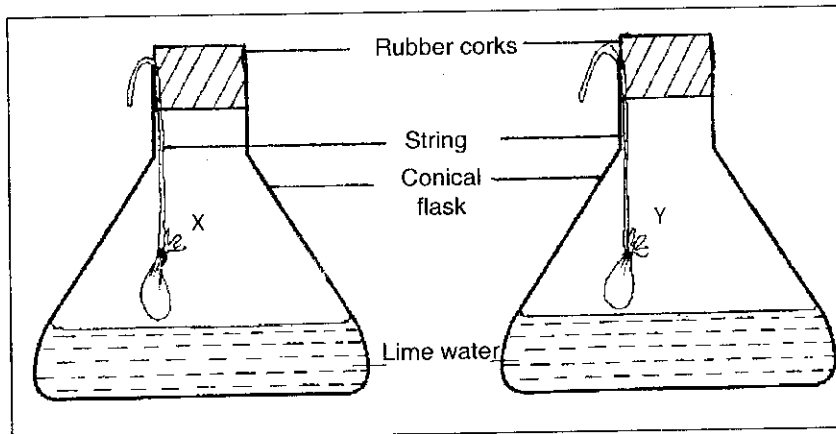
c) List **two** symptoms of attack due to pest J.

(1 mark)

d) Explain how crop rotation as a method controls pests.

(1 mark)

24(A) An experiment was set up as shown in the diagram below. Study it and answer the questions that follow.



i) Why was the soil in X first heated?

(1 mark)

ii) State the expected observations in each flask.

(1 mark)

iii)

Give **two** roles of soil living organisms.

(1 mark)

(B) Mutua's farm made the following purchases on credit from Kenya farmers association on 30th March 2014.

10bags of bran 70kgs @ Kshs. 1000

18bags of DSP 50kgs each @ Kshs,. 1500

24kg of bean seeds each 2kgs @ Kshs. 300

Prepare the invoice that KFA made to Mutua's farm.

(3marks)

SECTIONC(40MARKS)

ANSWER ANY TWO QUESTIONS FROM THIS SECTION ON FOOLSCAPS PROVIDED

25a)Describe the procedure in aerial layering.

(5marks)

b)Why is land consolidation considered to be important?

(5marks)

c) A farmer has 20 ha of land, 8ha under maize, 4ha of which is under wheat, 4ha under fodder crops and the rest under pastures. She wishes to know whether replacing 4ha of maize with Irish potatoes the following year would be worthwhile. The fertilizer would have to be increased from 5 bags per ha for maize to 7 bags per ha for Irish potatoes and an extra 10 man –days of casual labour per ha will be necessary as a result of the change. The average yield of maize and Irish potatoes is 30 and 50 bags/ha respectively. The prices are Ksh.1400 per bag for maize and Ksh.1200 per bag for Irish potatoes. Seed costs are Ksh.2000 per ha for maize and Kshs.4000 per ha for Irish potatoes. Fertilizer costs are Ksh.1300 per bag. Labour is paid at Ksh. 150 per man-day.

Draw up a partial budget and indicate the effects of the change.

(10marks)

26a)Describe the single stem pruning in coffee.

(6marks)

b)Describe the factors that influence soil erosion.

(8marks)

c)Explain how the government assists the farmers to avoid risks and uncertainty.

(6marks)

27a)Outline the principles that govern farmer's co-operative societies.

(7marks)

b)Describe bean production under

(8marks)

i) Land preparation

ii) Planting

iii) Pest control

c)Describe the process of hay making.

(5marks)