
**KENYA NATIONAL EXAMINATION COUNCIL
REVISION MOCK EXAMS 2016
TOP NATIONAL SCHOOLS**

**NAIROBI SCHOOL
AGRICULTURE
PAPER 1
TIME: 2 HOURS**

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NAIROBI SCHOOL KCSE TRIAL AND PRACTICE EXAM 2016

INSTRUCTIONS TO CANDIDATES

- Write your name and Index Number in the spaces provided above.
- Sign and write the date of examination in the space provided above
- This paper consists of THREE section A,B and C.
- Answer ALL the questions in section in sections A and B.
- Answer any two questions from section C.
- All answers should be written in the spaces provided.
- Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no question are missing

SECTION	QUESTION	MAXIMUM	CANDIDATES SCORE
A	1-19	30	
B	20-26	20	
C	27-29	20	
		20	

SECTION A: (30 MARKS)

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

1. a) State three ways by which agriculture contributes to national development. (1 ½ mk)
b) State two effects of high level of Education and technology on agricultural production. (1mk)
2. Name two insect pests that attack sorghum in the field. (1mk)
3. State two conditions when opportunity costs are zero. (1mk)
4. State four conditions limiting shifting cultivation. (2mks)
- 5 a) State three reasons for practicing grafting in citrus production (1/ ½ mk)

- b) Give the method used in breaking seed dormancy in the following crop;
 i) Calliandra (½ mk)
 ii) Rice
6. Name two ways by which the PH of a soil is raised. (1mk)
 7. State four reasons why organic matter is necessary in the soil (2mks)
 8. State two disadvantages of surface irrigation. (1mk)
 9. State two advantages of mixed pasture. (1mk)
 10. Mention four types of soil erosion water. (1mk)
 11. State two conditions for maximum efficiency of herbicides. (1mk)
 12. State two functions of polythene sheet when used as mulch material. (1mk)
 13. State four principals of cooperative societies. In Kenya (2mk)
 14. Differentiate between coppicing and pinching out. (2mks)
 15. State two sources of nitrogen in the soil for plants. (1mk)
 16. Give two benefits of possessing certificate of land ownership. (1mk)
 17. State four ways of improving labour efficiency in the farm. (2mks)
 18. State any two benefits of minimum tillage. (2mks)
 20. Give one reason why each of the following nursery management practices are carried

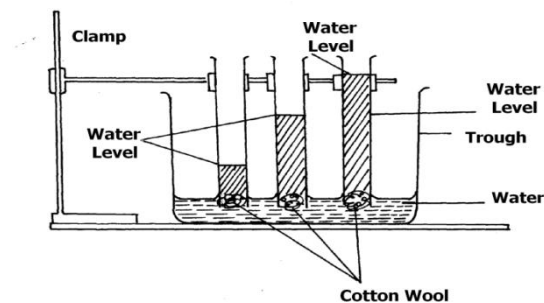
out .

- i) Hardening off (1mk)
 ii) Watering before transporting seedlings from the nursery bed. (1mk)
 iii) Hardening in onions (1mk)

SECTION B (20MARKS)

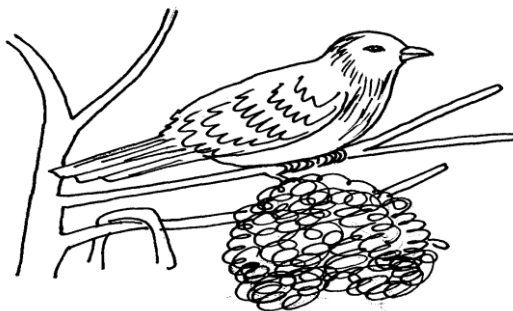
Answer all the questions in this section in its spaces provided.

20. The diagram below shows an experiment set up using soil types A, B and C and observations made after 24 hours.



- i) What is the experiment above designed to study? (½ mk)
 ii) Name the three soil types A, B, and C (1 ½ mk)
 iii) What characterizes textures of soil types A and C? (1mk)
 iv) State how a farmer would improve the structure of soil type A (½ mk)

20. Below is a diagram of a bird which is a crop pest.



- i) Identify the pest. (½ mk)
- ii) State three ways by which the bird causes loss in crops (1 ½ mks)
- iii) State TWO methods that can be used in the control of the pest. (1mk)

22. Below is a diagram of a tomato plant.



- i) Identify the practice illustrated (½ mk)
 - ii) Describe the procedure followed in spraying the crops with a fungicide in power form, water and a knapsack sprayer. (1 ½ mks)
 - iii) Name one fungal diseases that can be controlled in the crop using the procedure above. (½ mk)
 - iv) State two safety measures that should be taken while spraying the crops with a fungicides. (1mk)
23. A farmer can combine dairy meal and home made fees in feeding dairy cattle. Study the table below answer Questions that following.

Dairy meal (kg)	Home made feed (Kg)	Marginal Rate of Substitution
1	48	0
2	39	V
3	32	7
4	27	W
5	23	4

6	21	X
7	20	1
8	19	Y

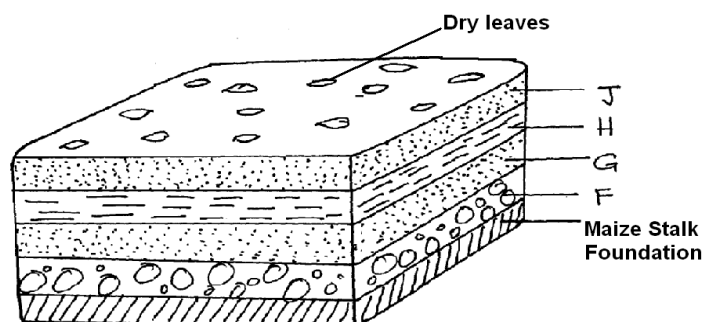
- i) Given the information above, Calculate the marginal rate of substitution and give values of V, W, X, and Y. (2mks)
- ii) Given that the price of dairy meal is Ksh 8.00 per kg. and that of home made feeds is Kshs 2/kg, calculate the least cost contribution. (1 ½ mks)

24. Given that at a price of Ksh 2000 per bag 20 bags of maize are demanded but when the price changes to Kshs 1800 /bag, 22 bags are demanded.

Calculated the Elasticity of demand. (Show your working) (1 ½ mks)

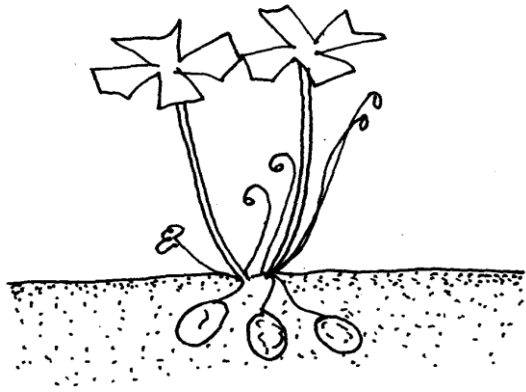
ii) What type of elasticity of demand is this in 24 (i) above? (½ mk)

25. The diagram below is a presentation of a cross section through a compost heap.



- i) Name the parts labeled O,F,G,H and J (2 ½ mks)
- ii) Give importance of the parts labeled J, H and G. (1 ½ mk)

26. The diagram below illustrates a weed.



- i) Identify the weed (½ mk)
- ii) State one competitive ability of the weed illustrate above. (½ mk)

SECTION C

Answer any two questions from this section in the spaces provided after question 29.

27.
 - a) Explain five factors that influence soil productivity. (10mks)
 - b) Outline five factors that a farmer would consider before deciding on the type of irrigation in crop production.
 - c) Describe five qualities of the mother plant should be considered when selecting vegetative materials for planting. (5mks)
28.
 - a) List seven benefits of using organic mater for mulching. (7mks)
 - b) Describe the field production of Napier grass under the following sub- headings
 - (i) Planting (3mks)
 - ii) Fertilizer and manure (3mks)
 - iii) Utilization (3mks)
 - c) Describe the procedure followed when transplanting tree seedlings from a bare root nursery bed. (4mks)
29.
 - a) Explain four agriculture practices which pollute water. (8mk)
 - b) Explain eight factors that determine the spacing of a crop (8mks)
 - c) State four precautions one should take when harvesting coffee.