



ALLIANCE HIGH SCHOOL

AGRICULTURE

PAPER ONE

PRE - TRIAL EXAM 2016

TIME 2 HRS

NAME ..... ADM. NO. ....

TEACHER ..... DATE DONE .....

SIGNATURE ..... DATE RETURNED .....

### INSTRUCTIONS

- 1) Write your name and admission number.
- 2) Answer all questions in section A and B and two questions ONLY in section C.
- 3) Write your answers on the spaces provided
- 4) Use English language
- 5) Cancelled work will not be marked
- 6) This paper consist of 9 printed pages.

Answer ALL Questions in the Spaces Provided

1. State **two** precautions when handling inoculated seeds. (1mk)

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State **four** causes of land fragmentation in Kenya. (2mks)

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2. Explain the meaning of the following post-harvesting practices carried out in crops such as beans. (½mk)

- (i) Dusting:.....
- (ii) Threshing:.....
- (iii) Cleaning:.....

3. Give **four** characteristics that a good plant used as green manure should possess. (2mks)

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4. State **four** ways in which chemical kills the weed in the crop field. (2mks)

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5. Outline **three** factors that determine the method of harvesting crops. (½mk)

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6. State three ways in which crop rotation may improve soil fertility. (1½mks)

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7. State three ways in which primary tillage destroy soil-borne pests. (1½mks)

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8. State four ways of improving labour productivity in a tea plantation. (2mks)

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9. Give four edaphic factors that influence crop production. (2mks)

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10. Differentiate between the term afforestation and reafforestation. (1mk)

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11. Explain the importance of gapping in crop production. (1mk)

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12. State **three** possible solutions to curb the problem of perishability in horticultural crops. (1½mks)

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13. Give **three** reasons why an inventory should be updated from time to time. (1½mks)

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14. (a) What is meant by the term joint product as used in production economic? (1 mk)

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(b) List **two** joint-products in crop production. (1mk)

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15. (a) Mention **three** methods of forage conservation. (1½mks)

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(b) Outline **three** effects of frequent early defoliation. (1½mks)

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16. List **three** Financial Documents. (1½mks)

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17. Study the following types of vegetable crops:-

- Cowpea
- Spring onion
- Pigeon peas
- Pepper
- Tulips

Identify:-

(i) Leaf vegetable \_\_\_\_\_

(½mk)

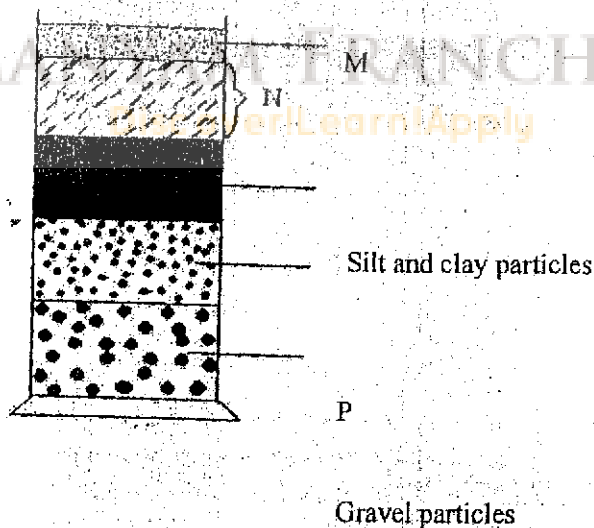
(ii) Fruit vegetable \_\_\_\_\_

(½ mk)

**SECTION B (20 MARKS)**

Answer all questions in the spaces provided in this section

18. The diagram below shows the result of an experiment carried out by a form one student. The student mixed water with sodium carbonate then added in a soil sample after which thorough shaking was done and the contents were left to settle on a bench.



What was the aim of the above experiment?

( ½ mk)

(b) Identify the layers represented by M, N and P.

(1 ½ mks)

M \_\_\_\_\_

N \_\_\_\_\_

P \_\_\_\_\_

- (c) What was the role of sodium carbonate used in the experiment? (½ mk)

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19. The following information was obtained from the records of Mr Juma's farm for the year ended on 31<sup>st</sup> march 2011

Particulars	kshs
Opening Valuation	100,000
Calves	72,000
Hired Labour	21,000
Sales of milk	13,000
Sales of cereals	33,000
Rent	9,000
Feed	5,300
Seed	1,700
Fertilizers	4,700
Sales of Vegetables	9,300
Sales of poultry	1,800
Sales of fruits	700
Pesticides	1,250
Depreciation	650
Repair and Maintenance	950
Interest on loans	200
Closing Valuation	9,000

- a) using the information given above, prepare a profit and loss account for Mr Juma's farm for the year ended 31<sup>st</sup> March (7mrks)

- b) Giving a reason, State whether Mr. Juma's farm made a profit or loss (½ mark)

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20. Study the following field practice.



- (a) Identify the practice carried out in the above diagram. (1 marks)

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- (b) Give four reasons for carrying out the above practice. (2 marks)

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- (c) Outline two limitations of the above practice. (2 marks)

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21. A farmer wishes to change her enterprise from vegetable production to dairy cattle rearing. The costs she incurs in growing of vegetables is as follows:-

Weed	Sh. 200
Harvesting	Sh. 300
Fertilizer	Sh. 500
Seeds	Sh. 400

When she changes her enterprises to dairy cattle rearing, she incurs the following:-

Cost of buying cattle	Sh. 5000
Disease	Sh. 200
Salary of milk person	Sh. 2000
Fencing	sh. 500

The revenue she got when growing vegetable is 10,000.

In dairy production, the revenue she gets from milk sales is Shs. 15,000 and manure sales shs. 1,000.

Draw up the partial budget and indicate the effect of the change. (Show your working) (5marks)

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## SECTION C

Answer any two questions in the spaces provided

22. (a) Describe the production of beans under the following sub-topics:
- Planting (2marks)
  - Field Management Practices. (4marks)
  - Harvesting. (2marks)
- b. Outline the safety measures in the use of chemicals to minimize environmental pollution. (8marks)
- (c) Explain four qualities of a good silage. (4marks)
23. (a) Explain five biological factors that influence soil formation. (10marks)
- (b) Describe the causes of crop diseases. (5marks)
- (c) Describe the field production of tea under frame formation by pegging method. (5marks)
24. (a) Describe the procedure of harvesting sugarcane. (5marks)
- (b) Explain how farmers overcome risks and uncertainties in farm business. (7marks)
- (c) Use the information given in the table below to answer the questions that follow.

Fertilizer inputs (units)	Potato yield (bags)	Marginal product (bag)
0	50	-
1	62	12
2	66	4
3	68	2
4	69	1
5	69	0

The cost of fertilizer is shs. 320 per unit and the price of potatoes is shs. 200 per bag.

- At what point of fertilizer application should the farmer be advised to stop investing in potatoes?  
(Show your work) (5marks)
- Give a reason for your answer in (i) above. (2marks)
- At what level is net revenue highest? (1mark)