

NANDI NORTH AND NANDI CENTRAL JOINT EXAMINATIONS 2016

443/1

AGRICULTURE

PAPER 1

SECTION A (30 MARKS)

Answer ALL Questions in the Spaces Provided

1. (a) Give **two** reasons why minimum tillage is encouraged in crop production. (2mks)
(b) State **two** precautions by which minimum tillage can be achieved in crop production. (1mk)
2. State **three** benefits of a land title deed to a farmer. (1½mks)
3. State **three** farming practices that can be carried out to increase amount of light harnessed by crops. (1½mks)
4. Explain the meaning of the following terms in crop production. (1½mks)
 - (i) Close Season:.....
 - (ii) Trap Cropping:.....
 - (iii) Integrated Pest Management (IPM):.....
5. Differentiate between the pricking out and thinning as used in nursery management practices. (1mk)
6. (a) Define the term Working Capital. (½ mk)
(b) Give **three** examples of Working Capital employed by a farmer in the production of maize.
7. (a) State **three** reasons why forage crops used for making silage should be harvested just before flowering stage. (1½mks)
(b) Outline **three** roles of additives in making silage. (1½mks)
8. Name the form in which the plant absorbs the following nutrients. (1½mks)
 - (i) Nitrogen:.....
 - (ii) Phosphorus:.....
 - (iii) Calcium:.....
9. Explain how do the temperature as an environmental factor influence the effectiveness of herbicides. (1mk)
10. Give **three** reasons why seeds may fail to germinate after planting. (1½mks)
11. State **two** advantages of undersowing in pasture establishment. (1mk)
12. State **four** characteristics of an ideal green manure crop. (2mks)
13. Outline **three** conditions which necessitate the use of flood irrigation. (1½mks)
14. State **three** agro-forestry practices. (1½mks)
15. State **one** condition in which each of the following documents are used. (1mk)
 - (i) Invoice:.....
 - (ii) Delivery note:.....
16. Outline **four** functions of Horticultural crops development authority (HCDA) (2mks)
17. State **three** ways in which the government can help farmers to adjust to risk and uncertainties (1½mks)
18. State **four** types of terraces. (2mks)
19. State **two** factors which determine the soil colour. (1mk)

SECTION B (20 MARKS)

Answer all questions in the spaces provided in this section

20. The diagrams below illustrate both a nursery and a field practice.,
 - (i) Identify the practices: (2mks)
 - (ii) State **one** effect of failing to carry out the above named practices in L and M. (2mks)
 - (iii) Give **two** benefits of roguing in crop production. (2mks)
21. Below is a diagram showing a crop disease.
 - (i) Identify the crop disease. (1mk)
 - (ii) Name the category in which the crop disease is classified. (1mk)
 - (iii) Name the causal organism of the above named crop disease. (1mk)
 - (ii) State **one** control measure of the above disease. (1mk)
 - (iii) State **two** harmful effects of crop diseases. (2mks)
22. A farmer wishes to change her enterprise from vegetable production to dairy cattle rearing. The costs she incurs in the growing of vegetable are as follows:-

Weeding	Shs. 400
Pruning	Shs. 600
Harvesting	Shs. 700
Chemicals	Shs. 1,200

When she changes her enterprise to dairy cattle rearing, she incurs the following costs:

Cost of buying cattle	Shs. 20,000
Disease control	Shs. 200
Salary of milk person	Shs. 3,000
Fencing	Shs. 1,000

The revenue she gets when growing tomatoes is Sh. 16,000. In dairy cattle production, the revenue she gets from milk sale is sh. 25,000 and manure sale sh. 3,000.

Draw up a partial budget and advise the farmer accordingly. (3mks)
23. The Diagrams below show some common weeds. Study them and answer the questions that follow.

- (i) Identify the weeds E and K. (1mk)
(ii) State **two** economic importance of weed E. (2mks)
(iii) State **one** problem associated with the use of herbicide in the environment. (1mk)

SECTION C**Answer any two questions in the spaces provided**

24. (a) Describe the field production of beans under the following sub-headings:
(i) Ecological requirements (2mks)
(ii) Planting (3mks)
(iii) Diseases and their control. (6mks)
(b) Describe various factors affecting spacing in crops. (9mks)
25. (a) State **five** qualities of a good manager. (5mks)
(b) State and explain **five** functions of a manager in a farm. (5mks)
(c) Explain ten factors influencing the supply of a commodity. (10mks)
26. (a) Describe **five** ways through which soil loses fertility. (10mks)
(b) Explain **five** factors considered in choosing seed rates. (5mks)
(c) Explain **five** reasons why seedlings are raised in a nursery. (5mks)