



EXAMINATIONS COUNCIL OF ESWATINI
Eswatini General Certificate of Secondary Education

CANDIDATE
NAME

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AGRICULTURE

6882/02

Paper 2

Specimen Paper October/November 2024-2026

Additional material: Calculator

2 Hours

Candidates answer:

Section A: Structured questions on the Question Paper.

Section B: Two essay questions on the lined paper provided.

READ THESE INSTRUCTIONS FIRST

Write your Centre Number, Candidate Number and Name on all the work you hand in.
Write in dark blue or black pen.

You may use an **HB** pencil for any diagrams or graphs.
Do not use staples, paper clips, glue or correction fluid.

Answer **all eight** structured questions and attempt **two** essay questions out of the three provided.

At the end of the examination, fasten all your work securely together.

The number of marks is given in brackets [] at the end of each question or part of the question.

For Examiner's Use	
1	
2	
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9	
10	
11	
Total	

This document consists of 17 printed pages and 3 blank page.

Section A – Structured Questions

Answer **all** questions (80 marks)

1 (a) (i) State what is meant by food security?

.....
..... [1]

(ii) Explain how mixed farming improves food security.

.....
.....
..... [3]

(iii) Suggest two ways intensive farming systems might harm the environment.

.....
.....
..... [2]

(b) Explain any **one** ways how wind positively affects the production of maize crop.

.....
.....
..... [2]

(c) Suggest the role of the regional development fund programme in agricultural development.

.....
.....
.....
..... [2]

[10 marks]

2 Fig 2.1 shows the results of shaking soil with water in a glass cylinder and allowing it to settle.

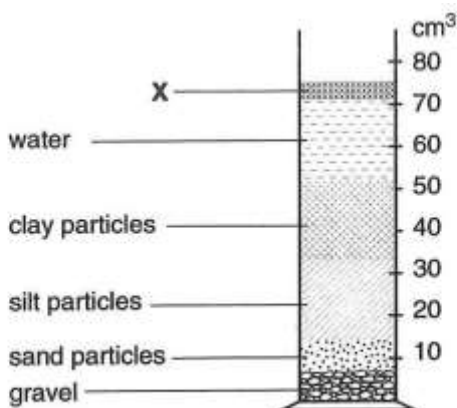


Fig. 2.1

(a) (i) What is X?

.....
 [1]

(ii) Explain one function of X in the soil.

.....
 [1]

(b) Fig 2.2 shows the approximate amounts of soil particle types in different soils, A, B and C.

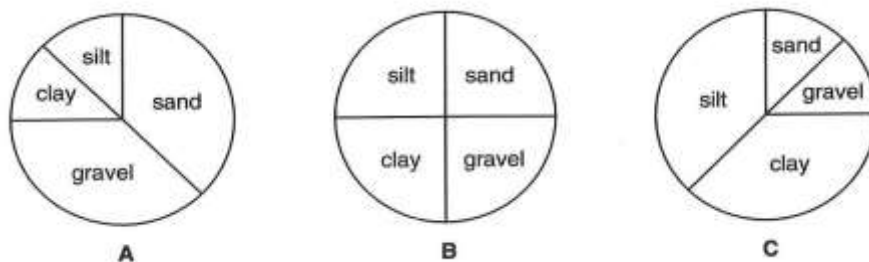


Fig. 2.2

Which of the pie charts represents the soil in Fig. 2.1?

..... [1]

(c) In relation to the growth of crops, state **two** advantages of soil A compared to soil C.

1

 2
 [2]

(d) Distinguish between platy and prismatic soil structure.

.....
.....
..... [2]

(e) Explain how lime can improve soil C.

.....
..... [1]

(f) Describe the process of exfoliation in soil formation.

.....
.....
..... [2]

(g) Explain **one** effect of erosion on agricultural production.

.....
..... [1]

[11 marks]

3 (a) Fig 3.1 represents part of the nitrogen cycle.

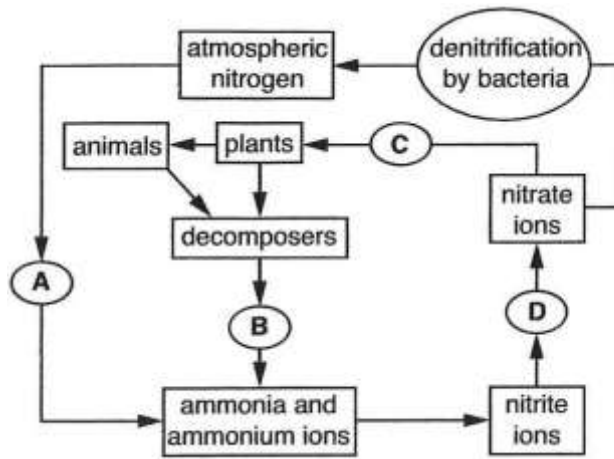


Fig 3.1

Name the process represented by arrows labelled

A [1]

D [1]

(b) (i) Describe **one** symptom of nitrogen deficiency in a crop.

.....
 [1]

(ii) Describe how a nitrogen deficiency could be corrected on an organic crop farm.

.....
 [1]

(c) In a 50 kg bag of 2:3:2 (22) + 0.5 Zn fertilizer, calculate the mass of nitrogen.
 Show your working.

.....

 [2]

(d) Explain how leaching reduces soil fertility.

.....

 [2]

(e) Table 3.1 shows the effect of adding different types of fertilisers on the yield of potato and wheat crop.

Plot	Fertilizer added in kg per hectare			Crop yield in tonnes per hectare	
	N	P	K	wheat	potatoes
A	0	0	0	1.7	9.5
B	96	0	0	3.7	8.3
C	0	77	107	2.0	16.7
D	96	77	107	6.6	38.6

Table 3.1

(i) Which plot was the control? [1]

Explain your answer

.....

..... [1]

(ii) What is the effect on the yield of potatoes of adding only N fertilisers?

.....

..... [1]

[11 marks]

4 Fig 4.1 shows a cross - section of a flower.

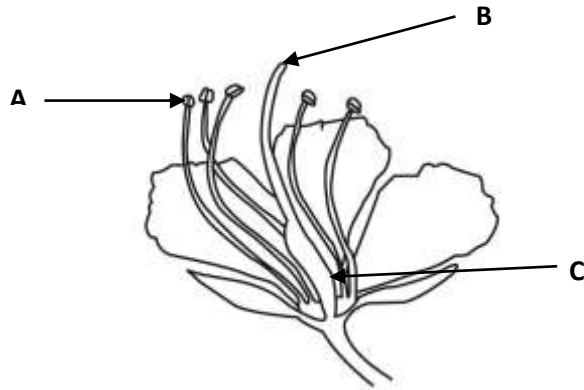


Fig. 4.1

(a) (i) Name the parts labelled **A** and **C**.

A

C [2]

(ii) State the function of part **B**.

.....

..... [1]

(b) Describe the process of pollination in a maize plant.

.....

.....

.....

..... [3]

(c) Discuss any **two** benefits of artificial pollination when breeding plants.

(i)

.....

(ii)

..... [2]

(d) Suggest **three** benefits of vegetative propagation.

(i)
.....

(ii)
.....

(iii)
.....

[3]

[11 marks]

5 Fig 5.1 shows the pathway of water in a plant.

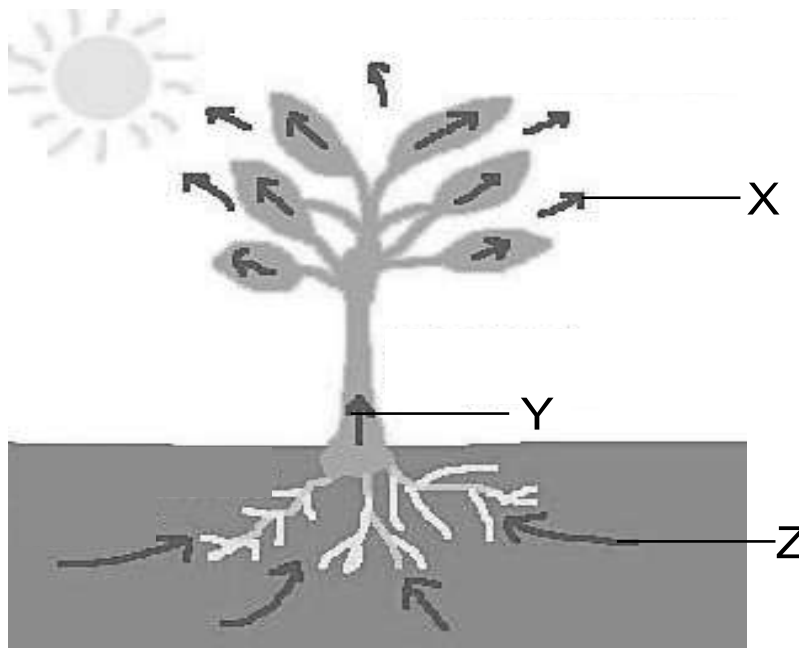


Fig 5.1

(a) (i) Name the process taking place at X.

..... [1]

(ii) Name the suction force which aid in drawing water at Y to X.

..... [1]

(iii) Explain how water is pulled from Z though Y to X.

.....
.....
.....
..... [3]

(b) (i) State **two** changes to plant leaves that take place when wilting occurs.

.....
.....
..... [2]

(ii) Explain how increased air humidity affects the process of wilting.

.....
..... [1]

[9 marks]

6 (a) What **two** factors determine the choice of a cabbage cultivar?

.....
..... [2]

(b) Explain the importance of soil testing before producing a cabbage crop.

.....
.....
..... [2]

(c) State the importance of ploughing in land preparation.

.....
..... [1]

(d) Describe the mode of attack of a cutworm on cabbage.

.....
.....
..... [3]

(e) Suggest one way of controlling weeds on maize crop in commercial farms.

.....
..... [2]

[10 marks]

7 (a) (i) State any **two** negative effects of communal grazing on livestock.

.....
.....
..... [2]

(ii) State **two** benefits provided by intercropping.

.....
.....
.....
..... [2]

(b) Suggest how genetically modified crops could harm the environment.

.....
..... [1]

(c) Fig 7.1 shows the stages involved in preparing a seed-bed by permaculture.







<p>slash long grass and weeds, mow lawn and leaves clipping in place</p>	
<p>wet whole area thoroughly</p>	
<p>soak paper, cardboard, underfelt, or even old carpet. lay overlapping sheets over whole area.</p>	
<p>throw any organic waste such as grass clippings, garden scraps or weeds on seed bed</p>	
<p>add 10 - 15 cm of rotted manure</p>	
<p>add layer of clean weed-free mulch (10 cm) such as straw</p>	

Fig. 7.1

Use the information in Fig. 7.1 suggest reasons why each of the following takes place.

(i) Lime should be added before planting seeds.

.....
 [1]

(ii) Weeds do not grow well.

.....
 [1]

(iii) The seed-bed temperature is higher than the surrounding soil.

.....
 [1]

[8 marks]

Section B – Essay QuestionsAnswer any **two** questions in this section (20 Marks)

- 8 (a)** Describe, using examples cultural weed control in maize production. [5]
(b) Explain how weeds adversely affect crop production. [5]
(c) Suggest safety precautions to be taken when mixing herbicides. [5]
[15 marks]
- 9 (a)** Describe the adverse effects of sprinkler irrigation. [5]
(b) Explain how irrigation contributes towards food security. [5]
(c) Suggest how drip irrigation contributes to the conservation of soil water. [5]
[15 marks]
- 10 (a)** Describe the importance of farm credit. [5]
(b) Explain the law of diminishing returns using graphical example. [5]
(c) Suggest the importance of farm records. [5]
[15 marks]

A series of horizontal dotted lines for writing, spanning the width of the page.

A series of 30 horizontal dotted lines are provided for writing answers. The lines are evenly spaced and span most of the width of the page, starting from the left margin and ending at the right margin. The lines are intended for the student to write their responses to the questions on the previous page.

A series of horizontal dotted lines for writing, spanning most of the page width. There are 25 dotted lines in total, evenly spaced.

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