

Centre Number	Candidate Number	Name
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CAMBRIDGE INTERNATIONAL EXAMINATIONS  
International General Certificate of Secondary Education

**AGRICULTURE**

**0600/03**

Paper 3

October/November 2003

**1 hour 15 minutes**

Candidates answer on the Question Paper.  
Additional Materials: Answer Paper

**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 in the spaces provided on the Question Paper.  
You may use a soft pencil for any diagrams, graphs or rough working.  
Do not use staples, paper clips, highlighters, glue or correction fluid.

**Section A**

Answer **all** questions.  
Write your answers in the spaces provided on the question paper.

**Section B**

Answer any **two** questions.  
Write your answers on the separate answer paper provided.

At the end of the examination,

- 1 fasten the separate answer paper securely to the question paper.
- 2 enter the numbers of the Section B questions you have answered in the grid below.

The number of marks is given in brackets [ ] at the end of each question or part question.  
You are advised to spend no longer than 30 minutes on Section A.

For Examiner's Use	
<b>Section A</b>	
<b>Section B</b>	/
<b>TOTAL</b>	

If you have been given a label, look at the details. If any details are incorrect or missing, please fill in your correct details in the space given at the top of this page.

Stick your personal label here, if provided.

This document consists of **6** printed pages and **2** blank pages.



**Section A**

Answer **all** the questions.

Write your answers in the spaces provided.

1 An area of forest is to be used to grow a cereal crop.

(a) (i) Outline how this land could be prepared for sowing a cereal crop.

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

(ii) State two problems caused by deforestation.

1. ....  
2. ....[2]

(iii) Describe a method of draining the soil.

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

(b) A farmer should choose the most suitable cultivar of cereal for the land.

Suggest **two** factors that will influence his choice.

1. ....  
2. ....[2]

- (c) Fig. 1.1 is part of a label from a container of pesticide to be applied to the crop.

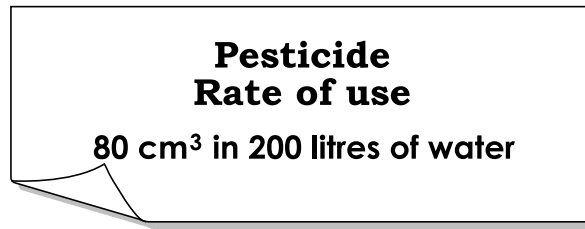


Fig. 1.1

What volume of pesticide will be required to make enough solution to fill a 10 litre knapsack sprayer? Show your working.

answer ..... [2]

[Total : 10]

2 (a) State three advantages of rotational grazing compared with extensive grazing.

- 1. ....
- 2. ....
- 3. ....[3]

(b) Suggest when and how a pasture might be provided with its fertiliser requirements.

.....

.....

.....[2]

(c) Draw a labelled diagram to describe 10 metres of fence suitable for enclosing named livestock.

livestock .....

[4]

(d) Describe the construction, maintenance and use of a hedge.

.....

.....

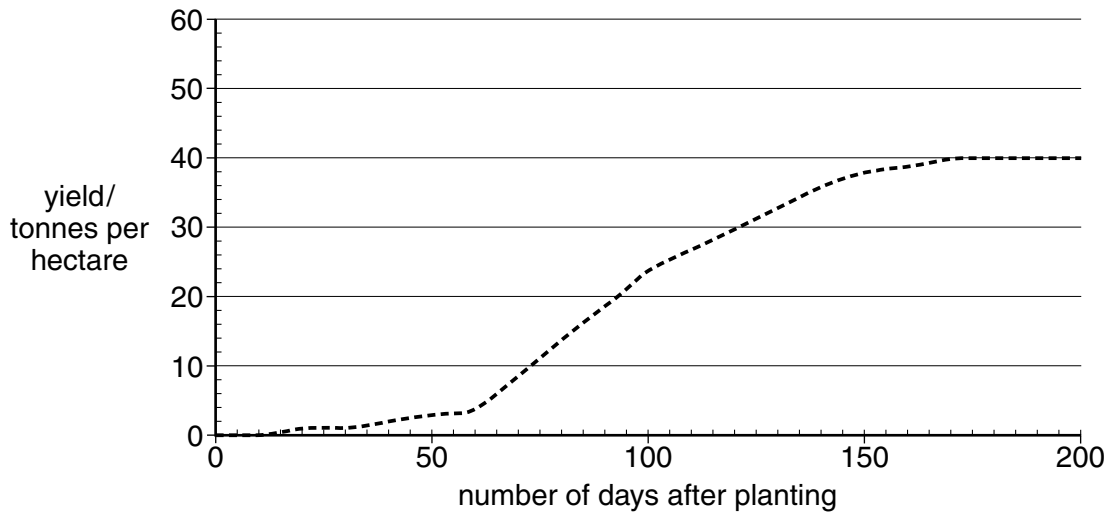
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.....

.....[4]

[Total :13]

3 Fig. 3.1 describes the increase in yield of a crop of potatoes.



**Fig. 3.1**

(a) (i) What is the maximum yield of this crop?

.....[1]

(ii) Suggest how many days after planting the crop should be harvested.

.....[1]

(iii) Potatoes can be infected by fungal diseases.

On Fig. 3.1, draw the increase in yield for a crop infected 100 days after planting. [1]

(iv) How are fungal diseases spread?

.....[1]

(b) Describe how a farmer could calculate whether a profit had been made from this crop.

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

[Total : 7]

**Section B**

Answer any **two** questions.

Write your answers on the separate answer paper provided.

Use labelled or annotated diagrams where they help to make your answers more easily understood.

- 4 (a) Explain how soil is formed from parent rock by physical weathering. [10]  
(b) Outline how the growth of plants can be affected by leaching of soil minerals. [5]  
[Total : 15]
- 5 (a) (i) Describe the functions of the transpiration stream. [5]  
(ii) Explain how water vapour is lost from a leaf. [6]  
(b) Describe how systemic pesticides are carried around a plant. [4]  
[Total : 15]
- 6 (a) What are the advantages of artificial insemination? [3]  
(b) (i) For a **named** farm animal, how can artificial selection be used to improve the yield obtained from this stock? [5]  
(ii) Beginning with the onset of labour, describe the birth process for this animal. [7]  
[Total : 15]
- 7 (a) Describe and explain the construction of a dam wall. [5]  
(b) How is water treated to make it suitable for drinking? [5]  
(c) Describe how to replace a washer in a tap. [5]  
[Total : 15]



