



**CANDIDATE** 

# UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS International General Certificate of Secondary Education

Oridie Con

0610/63

1 hour

October/November 2010

NAME		
CENTRE NUMBER	CAND	
BIOLOGY		
Paper 6 Alternat	ive to Practical	0
Candidates ans	wer on the Question Paper	

#### **READ THESE INSTRUCTIONS FIRST**

No Additional Materials are required.

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 a pencil for any diagrams or graphs.

Do not use staples, paper clips, highlighters, glue or correction fluid.

DO NOT WRITE IN ANY BARCODES.

Answer all questions.

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 question.

For Examiner's Use						
1						
2						
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This document consists of 9 printed pages and 3 blank pages.



Bread can be prepared from a mixture of flour, yeast, sugar and water. The re-1 mixture is called dough. Some bakers add a flour improver to make the dough rise quick

www.papaCambridge.com An investigation was carried out to compare two types of dough, one of which contained a flour improver and the other did not.

Dough **A** was prepared without a flour improver and dough **B** with a flour improver.

Fig. 1.1 shows the dough in two measuring cylinders after 20 minutes.

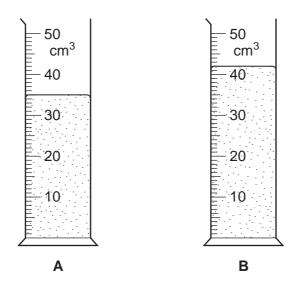


Fig. 1.1

(a) (i) Measure the volumes of dough A and dough B in the measuring cylinders shown in Fig.1.1. Record your measurements in Table 1.1.

Table 1.1

time / minutes	volume of dough <b>A</b> / cm <sup>3</sup>	volume of dough <b>B</b> / cm <sup>3</sup>
0	20	18
10	27	32
20		
30	44	50
40	50	63

(ii) Plot the data in Table 1.1 to show the volumes of dough A and dough B time. Plot the data for A and B on the same pair of axes.

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[5]

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(iii)	Describe the results.
	[3]
(iv)	Suggest how you would carry out this investigation to obtain reliable results.

	4
	ays an important part in making some types of bread.  lain how yeast makes the dough rise.
Yeast pl	ays an important part in making some types of bread.
<b>(b)</b> Exp	lain how yeast makes the dough rise.
	[2]
*******	
Fig. 1.2	shows some yeast cells dividing.
X	
	Albana de la companya della companya della companya de la companya de la companya della companya
	×5000
	Fig. 1.2
(c) (i)	Name the type of reproduction shown by these cells.
	[1]
(ii)	Measure the length of yeast cell <b>X</b> in Fig. 1.2.

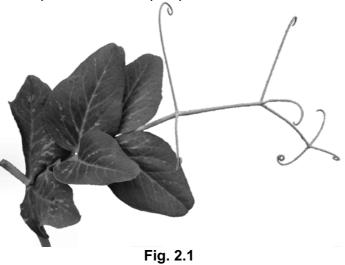
Draw a line on Fig. 1.2 to show where you have made your measurement. length of yeast cell **X** in Fig. 1.2 \_\_\_\_\_mmm [1] (iii) Calculate the actual length of yeast cell X.Show your working.

ANNA BABACAN For iner's

actual length of yeast cell <b>X</b>	mm	[2]
actual longth of youth con A	 	[—]

[Total: 20]

www.PapaCambridge.com Fig. 2.1 shows one complete leaf from a pea plant made of a number of smaller leafle 2



(a) (i) Make a large, labelled drawing of the leaf.

Describe how the leaflets in Fig. 2.1 are modified for different functions.
[3]

[4]

(b) (	(i)	State <b>three</b> environmental conditions needed for germination of seeds.
		[1]
(	(ii)	Describe how you would grow germinated pea seeds until they produce flowers.
		[3]

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Table 2.1 shows the measurements of height of some pea plants in a garden at the flowering.

## Table 2.1

## height of plants / cm

38.0; 11.0; 58.0; 64.0; 61.0; 45.5; 12.5; 16.0; 56.0; 43.5; 36.5; 18.2;

18.6; 48.0; 50.0; 63.0; 37.0; 44.6; 15.0; 13.6; 55.0; 60.9; 11.7; 19.0

(c) What can you conclude about the height of these pea plants from the data in Table 2.1?

[4]

[Total: 15]

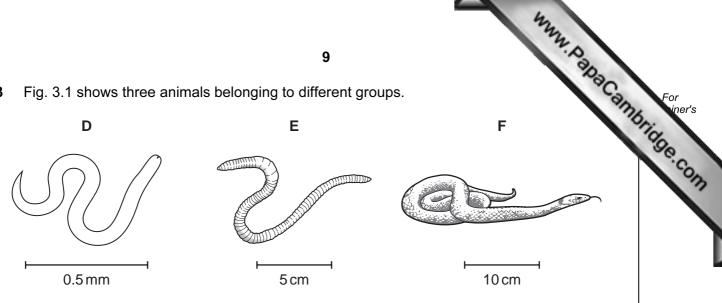


Fig. 3.1

In Table 3.1, name the group to which these animals, **D**, **E** and **F**, belong and give your reasons based on external features visible in Fig. 3.1 only. D has been identified for you.

Table 3.1

	animal group	reasons
D	nematode	
E		
F		

[5]

[Total : 5]

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