EXAMINATIONS COUNCIL OF SWAZILAND
in collaboration with
UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
Swaziland General Certificate of Secondary Education

CANDIDATE NAME	
CENTRE NUMBER	
CANDIDATE NUMBER	

5416922924

BIOLOGY **6884/04**

Paper 4 Practical Test **October/November 2012**

1 hour 15 minutes

Candidates answer on the Question Paper.

Additional Materials: As listed in the Confidential Instructions

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 a soft pencil for any diagrams, graphs, tables or rough working.
Do not use staples, paper clips, highlighters, glue or correction fluid.

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

You may use a calculator.

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

For Examiner's Use	
1	
2	
Total	

This document consists of **5** printed pages and **3** blank pages.

1 You are provided with sugar, yeast, white bread flour and some warm water in a beaker.

For Examiner's Use

(a) Measure and record the temperature of the water in the beaker.

.....[1]

Add the flour, yeast and sugar provided to the warm water and mix into a paste using the spatula.

(b) (i) Use a ruler to measure the exact height of the mixture in the beaker and record it in the table at 0 minutes.

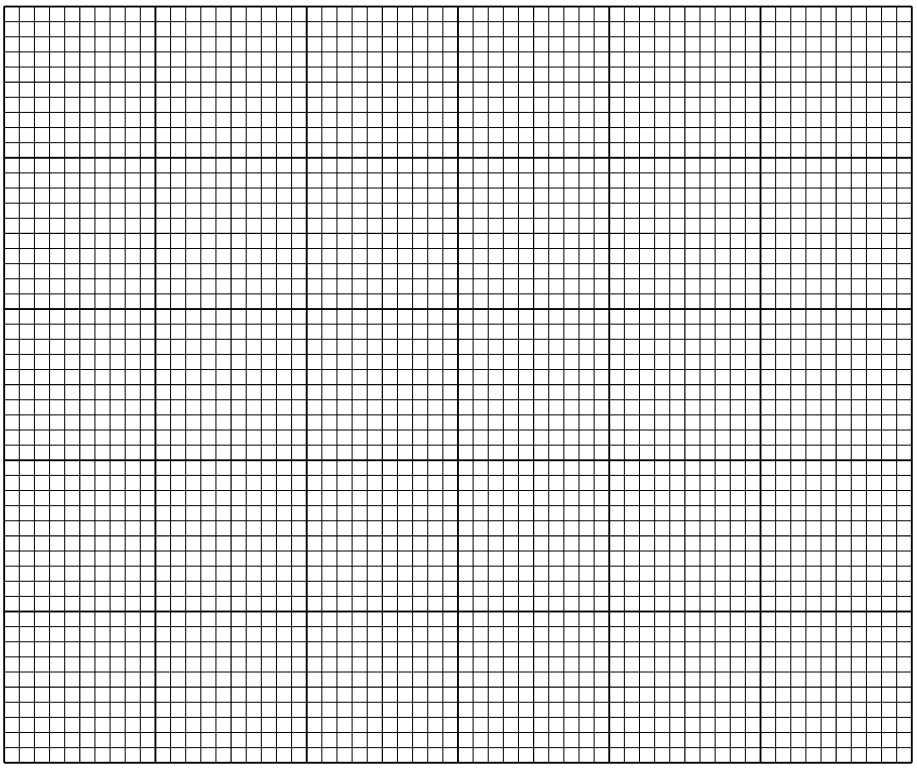
(ii) Start the stop clock or observe the time on the wall clock.

(iii) Measure and record the height of the mixture at 2-minute intervals for 10 minutes.

Time (minutes)	0	2	4	6	8	10
Height (mm)						

[1]

(c) Plot a graph of your data.



[5]

(d) Use your graph to estimate the height of the mixture at 7 minutes.

.....[1]

For Examiner's Use

(e) Describe and explain the change in height observed in the experiment.

.....

.....

.....

.....[3]

(f) Describe an experiment that you can set up to show that yeast is responsible for the observed change.

.....

.....

.....[2]

(g) Name one use of yeast in the food industry.

.....[1]

[Total: 14]

2 You are provided with Specimens **W1** and **W2** which are sections of organs from two systems of an animal.

For Examiner's Use

Study specimen **W1** carefully, using a hand lens.

(a) (i) Draw a large labelled diagram to show the external features of specimen **W1** as seen through the hand lens.

[4]

(ii) Calculate the magnification of your drawing. Show your working.

Magnification: .....[2]

(b) Using a suitable table, state **two** differences between specimens **W1** and **W2**.

[4]

(c) (i) Identify and name specimen **W1**.

.....[1]

For Examiner's Use

(ii) State and explain one feature of specimen **W1** that makes it suitable for its function.

feature .....

explanation .....

.....[2]

(d) Add a few drops of iodine solution to the cut surface of specimen **W2**.

State and explain the observed changes in colour on the surface of **W2**.

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.....[3]

[Total: 16]

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