Candidate Name _____

Centre Number	Candidate Number

EXAMINATIONS COUNCIL OF ZAMBIA

Examination for School Certificate Ordinary Level

Biology 5090/3

Paper 3 Practical Test

Wednesday **22 NOVEMBER 2017**

Additional materials:
As listed in Instructions to Supervisors

Time 1 hour 15 minutes

Instructions to Candidates

Write your **name**, **centre number** and **candidate number** in the spaces provided at the top of this page.

There are **two** questions in this paper.

Answer **both** questions.

Write your answers in the spaces provided on the question paper.

Information for candidates

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

Cell phones are not allowed in the examination room.

For Examiner's Use	
1	
2	
Total	

This question paper consists of 4 printed pages

Answer both questions

1 **(a)** Examine specimen **D1A** and answer the questions that follow.

(i) What part of a plant is specimen **D1A**?

..... [1]

(ii) Explain why specimen **D1A** is considered a stem.

.....

..... [1]

(iii) State the functions of **D1A** in a plant.

.....

..... [1]

(iv) Describe the method used for propagation of specimen **D1A**.

..... [1]

(b) You are provided with specimen **D1B** which was taken from **D1A**. Extract a solution from specimen **D1B** using the materials provided.

(i) Describe the method used to extract the solution from specimen **D1B**.

.....

.....

..... [3]

(ii) Using the extract from **D1B** carry out the following food tests.

Specimen	Reagent	Procedure	Observation	Conclusion
D1B	Iodine solution			
	Benedict's solution			
	Biuret Reagent			

[12]

(iii) Explain why specimen **D1B** is not a good source of food for a malnourished person.

.....

..... [1]

[Total: 20 marks]

2 (a) You are provided with specimen **W33** and **W34**. Make a large labelled drawing of the cut surface of **W33**.

[8]

(b) (i) Measure the diameter of specimen **W33** and record the measurement.

..... [1]

(ii) Measure the diameter of your drawing. Draw a line across the diagram where the measurement was taken.

..... [1]

(iii) Calculate the magnification of the drawing using the measurements obtained.

[3]

(c) State **three** similarities between **W33** and **W34**.

(i) .....

(ii) .....

(iii) ..... [3]

(d) State **three** differences between **W33** and **W34**.

(i) .....

.....

(ii) .....

.....

(iii) .....

..... [3]

(e) State how new plants can be produced from specimen **W33**.

.....

..... [1]

[Total: 20 marks]