

Candidate Name: _____

Centre Number	Candidate Number										

EXAMINATIONS COUNCIL OF ZAMBIA

Examination for General Certificate of Education Ordinary Level

Biology
Paper 3 Practical Test

5090/3

Friday

29 JULY 2016

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.

Use sharp **HB** pencils for your drawings. Coloured pencils and crayons should **not** be used.

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	

1 You are provided with food material **A**.

Transfer two spatula fulls of food material **A** into the beaker labelled **A1**.
Add 50cm³ of distilled water to **A1** and shake the contents.

(a) (i) Test 2cm³ of solution **A1** for reducing sugars and record the results in the table provided below.

Reagent(s)	Volume of test reagent(s)	Observation(s)	Conclusion

[4]

(ii) Describe the method you used to obtain the results in **Part (a) (i)** above.

.....

 [1]

(iii) Explain what the observation has shown in terms of sugar content of solution **A1**.

.....
 [1]

(b) Test 2cm³ of solution **A1** for the presence of proteins and record the results in the table below.

Reagent	Volume of test reagent	Observation(s)	Conclusion

[4]

- (c) (i) Place food materials of **A1** on a white tile and carry out the test for starch and complete the table below.

Reagent	Volume of test reagent	Observation(s)	Conclusion

[4]

- (ii) Explain why the food material was placed on a white tile.

.....

..... [2]

- (d) (i) State the use of reducing sugars in animals.

.....

..... [1]

- (ii) State **one** storage organ for starch in plants.

.....

..... [1]

- (iii) Explain why the food sample **A** was ground to small pieces.

.....

..... [2]

[Total: 20]

2 You are provided with specimens **M1**, **M2** and **M3**.

(a) (i) Make a drawing of specimen **M1** and label any **four** parts.

[8]

(ii) Measure the widest part of the drawing and draw a line where the measurement was taken.

Measurement of drawing[2]

(b) Calculate the magnification of the drawing.

Magnification = [3]

(c) (i) Compare the outward appearance of specimens **M2** and **M3** with **M1**.

M2

M3 [2]

(ii) Describe the process that caused the condition of **M2**.

..... [3]

(iii) What could be done to the plant of **M3** to make its leaf look like that of **M1**?

.....

..... [2]

[Total: 20]

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