

Candidate Name \_\_\_\_\_

Centre Number				Candidate Number									

## EXAMINATIONS COUNCIL OF ZAMBIA

Examination for School Certificate Ordinary Level

### Biology

**5090/3**

#### Paper 3 Practical Test

**Tuesday**

**20 NOVEMBER 2018**

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	



**Answer both questions**

**1 (a)** You are provided with solutions **A** and **B**.

**(i)** Using the reagent provided, carry out food tests on the solutions **A** and **B** given.

Reagent	Solution	Method	Observation	Conclusion
Iodine solution	A			
	B			

[6]

**(ii)** State the importance of the food nutrient in solution **A**.

.....

.....

.....

[3]

**(iii)** Name the nutrient in the table above which is acted upon by pancreatic amylase in the digestive system.

.....

[1]



- (b) (i) You are provided with specimens **C** and **D**. Take a spatula full of specimen **C** and place it on the blotting paper labelled **C**. Repeat the instruction above for specimen **D**. Fold the blotting papers around the specimens and squeeze.

Unfold each blotting paper carefully to remove the contents. Examine the blotting papers **C** and **D** and write your observations and conclusions in the table below.

Test method	Specimen	Observation	Conclusion
Grease spot test	C		
	D		

[4]

- (ii) Which of the **two** nutrients tested above is emulsified by bile salts?

..... [1]

- (iii) Give a reason for your answer in (b) (ii) above.

..... [1]

- (iv) In which part of the digestive system is the nutrient emulsified?

..... [1]

- (v) State the importance of solution **C** in the nutrition of a mammal.

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

[Total: 20 marks]



2 Examine specimen **E** using a hand lens.

(a) State the phylum to which specimen **E** belongs.

..... [1]

(b) (i) Using a hand lens, draw a labelled diagram of specimen **E** in the space provided.



[8]

(ii) Measure the length of the drawing.

..... [1]

(c) Calculate the magnification of specimen **E**.

[3]

(d) (i) Identify the visible structural locomotion features of specimen **E**.

1 .....

2 ..... [2]

(ii) What are the functions of the structural features identified in (d) (i) above.

1 .....

2 ..... [2]

(e) Explain how specimen **E** is adapted to aquatic life.

.....

.....

..... [3]

[Total: 20 marks]

