EXAMINATION NO.: _____

THE MALAWI NATIONAL EXAMINATIONS BOARD

2019 MALAWI SCHOOL CERTIFICATE OF EDUCATION EXAMINATION

BIOLOGY

Subject Number: M022/II

Tuesday, 18 June

Time Allowed: $1\frac{1}{2}$ hour sessions
10:00 am onwards

PAPER II
(40 marks)
Practical

Instructions

1. This paper contains 5 printed pages. Please check.
2. Write your **Examination Number** at the top of this page and of every sheet.
3. This paper contains two sections, **A** and **B**. Section **A** has **two** descriptive questions and Section B has **two** questions on experiment.
4. Answer all the **four** questions in the spaces provided in the question paper. The maximum number of marks for each answer is indicated against each question. A pencil should be used for all drawings.
5. In the table provided on this page, **tick** against the question number you have answered.
6. At the end of the examination, hand in your question paper to the invigilator when time is called to stop writing.

Question Number	Tick if answered	Do not write in these columns	
1			
2			
3			
4			

Section A (20 marks)

1. Describe an experiment that could be carried out to show that fish contains protein. In an essay form, your answer must include the following: procedure, expected results and conclusion.

(10 marks)

Continued/...

2. Describe an experiment that could be carried out to show the effect of pH on activities of the enzyme amylase. In an essay form, your answer must include the following: procedure, expected results and conclusion.

(10 marks)

Continued/...

Section B (20 marks)

3. You are provided with specimen **A.**

a. (i) Measure the length in mm of the specimen and record it.

_____

(1 mark)

(ii) Draw the specimen and label any **three** parts.

(4 marks)

b. Calculate the magnification of your drawing. Show your working.

(3 marks)

c. State any **two** observable adaptations of the specimen for photosynthesis.

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_____

(2 marks)

Continued/...

4. You are provided with specimens **B** and **C**.

a. To which group of stems does specimen **B** belong?

_____

(1 mark)

b. Draw specimen **B** and label **four** external parts.

(5 marks)

c. State any **two** food nutrients stored in specimen **B**.

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_____

(2 marks)

d. Explain **one** adaptation of specimen **C** for it to grow in dry habitat.

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(2 marks)

END OF QUESTION PAPER

This paper contains 5 printed pages.