

NAME ..... DATE .....

INDEX NO. .... SIGNATURE .....

231/3  
BIOLOGY  
PAPER 3  
(PRACTICAL)  
TIME: 1¼ HOURS.

## MBOONI WEST SUB – COUNTY JOINT EVALUATION TEST, 2014

*Kenya Certificate of Secondary Education*

231/3  
BIOLOGY  
PAPER 3  
(PRACTICAL)  
JULY/AUGUST 2014  
TIME: 1¼ HOURS.

### INSTRUCTIONS TO CANDIDATES

- Answer **all** the questions.
- You are required to spend the first 15 minutes of the 1¼ hours allowed for the paper reading the whole paper carefully before commencing your work.
- Answers must be written in the spaces provided in the question paper.
- Additional pages must not be inserted.
- This paper consists of 4 printed pages. Candidates should check to ensure that all pages are printed as indicated and no questions are missing

### FOR EXAMINER'S USE ONLY

Questions	Maximum score	Candidate's score
Question 1	16	
Question 2	12	
Question 3	12	
<b>Total score</b>	<b>40</b>	

1. You are provided five with potato cylinders each measuring 5cm long, liquid S<sub>1</sub> and S<sub>2</sub>, Hydrogen Peroxide, dilute Hydrochloric Acid, and test tubes labeled A,B and C.
- a) i) Place one cylinder in a beaker containing liquid labeled S<sub>1</sub> and another in the liquid labeled S<sub>2</sub>. Allow to stand for 30 minutes, then remove the cylinders, wipe them dry using blotting paper. Measure each cylinder in centimeters and record their length and texture in the table given below. (4 marks)

CYLINDER	LENGTH IN CM	TEXTURE
LIQUID S <sub>1</sub>		
LIQUID S <sub>2</sub>		

- ii) Account for the results obtained in a (i) above (4marks)

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- b) Using a scalpel cut one of the cylinders into 5 parts each one centimeter long. Put the pieces into test tube A. Crush the other two using mortar and pestle into a paste. Divide the paste into two equal lots. Put one lot into test tube B and the other into test tube C. To each of the test tubes A and B add 2cm<sup>3</sup> of hydrogen peroxide and to test tube C add 1 cm<sup>3</sup> of dilute Hydrochloric Acid, then 2cm<sup>3</sup> of hydrogen peroxide. Record your observation below. (3marks)

Test tube A

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Test tube B

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Test tube C

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- (ii) Write a word equation for the reaction that occurs in the test tubes (1mark)

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- (iii) Account for the rate of reaction in test tube A, B and C. (4 marks)

A

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B

C

2. The diagrams below represents plants , K,L and M. study them carefully and answer the questions that follow.

**SEE PHOTOGRAPHS ATTACHED**

a) Giving a reason in each case, classify each plant into its division. (4 marks)  
K

L

b) Using observable features only, state the subdivision of plant M (2marks)

c) Identify the parts labeled P,U,V & Y

P

U

V

Y

d) State the functions of part T and state why (d) grows in wet areas. (2 marks)

3. You are provided with photograph L, K and J. Examine them.

**SEE PHOTOGRAPHS ATTACHED**

a) Using observable features only, state class of animals shown in the photograph L and K. (4 marks)

L

Reason

K

Reason

b) (i) On the photograph J name the parts labeled E, F and G. (3 marks)

E

F

G

(ii) State the functions of the structures labeled H in photograph J. (2marks)

c) (i) The actual length of animal J in cm is shown by a section of the ruler in the photograph.

Calculate the tail power (show your working)

(ii) State the significance of tail power the life of fish in water. (1mark)