

Name Index No.

SchoolCandidate's signature

Date

231/3

BIOLOGY

Paper 3

(Practical)

July/August 2018

Time 1¾ hours

FORM FOUR END OF SECOND TERM EXAM
Kenya Certificate of Secondary Education

BIOLOGY

Paper - 231/3

July/August 2018

Time: 1¾ hours

INSTRUCTIONS TO CANDIDATES

- Write your name and index number in the spaces provided at the top of this paper.
- Sign and write the date of examination in the spaces provided above.
- Answer all the questions.
- You are required to spend the first 15 minutes of the 1¾ hours allowed for this 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.

EXAMINER'S USE ONLY

Question	Maximum score	Candidate's score
1		
2		
3		
TOTAL	40	

*This paper consists of 4 printed pages
Candidates should check the question paper to ensure that all the
printed pages are printed as indicated and no questions are missing.*

1. You are provided with specimen labeled K and L. Examine them and answer the following questions.

a. Using external features only:

i. Name the sub division to which both specimen belong. (1 mark)

.....

ii. Give a reason for your answer in a (i) above. (1 mark)

.....

b. i. Name the class to which each specimen belongs. (2 marks)

K

.....

L

.....

ii. Give a reason for your answers in b (i) above. (2 marks)

K

.....

L

.....

c. i. Suggest the agent of pollination for the specimen L . (1 mark)

.....

ii. Give a reason for your answer in c (i) above. (1 mark)

.....

d. List three external observable differences between the leaves of specimen K and L. (3 marks)

Specimen K	Specimen L

2. You are provided with a piece of potato labeled R. Cut 4 equal pieces of the potato about 1cm^3 .
- Place one piece in a test tube and label it A.
 - Place a second piece in to a pestle and crush it in to a paste using a mortar. Put it in to a second test tube and label it B.
 - To each of the two test tubes add 2cm^3 of hydrogen peroxide.

a. Record your observations.

Test tube A

(1 mark)

.....

Test tube B

(1 mark)

.....

b. Put a third piece of potato on to the pestle and crush it in to a paste. Put it in to a third test tube and label it C. Add some little water to the paste and boil it for about 10 minutes. Let it cool. Add 2cm^3 hydrogen peroxide. Record your observations. (1 mark)

.....

c. Explain the results in (a) and (b) above.

(3 marks)

.....

.....

d. i. Crush the fourth piece of potato and put it in to a test tube, add 2cm^3 hydrogen peroxide to it. Test for gas produced and record your observations. (1 mark)

.....

ii. Give the identity of the gas produced in d (i) above.

(1 mark)

.....

e. i. Write a word equation for the reaction that takes place in d (i) above.

(1 mark)

.....

ii. What is the importance of the reaction in d (i) above in the body?

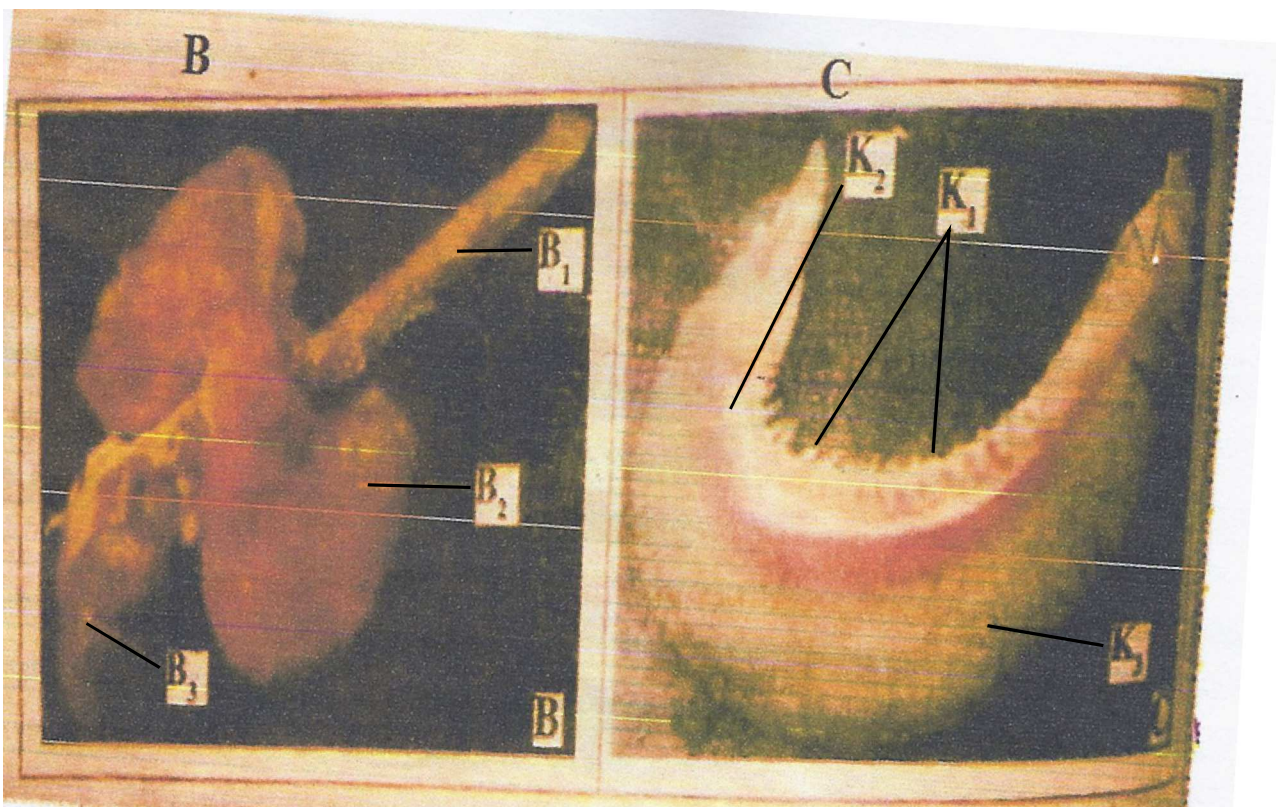
(1 mark)

.....

f. Crush the rest of the specimen in to paste and using the reagents provided test for the food substances present. (6 marks)

Substance	Procedure	Observation	Conclusion

3. Below are photographs labeled B and C of organs obtained from different animals. The organ performs similar functions. Examine them and answer the questions that follow.



a. Name the organs. (2 marks)

B

C

b. State the common function performed by the organs stated above. (1 mark)

.....
.....

c. Name the part labeled B₁, B₂ and B₃ in photograph B. (3 marks)

B₁

B₂

B₃

d. i. Identify the part labeled K₁, K₂ and K₃ in photograph C. (3 marks)

.....

ii. Using observable features, state how the parts labeled K₁ and K₃ you identified in d (i) above are adapted to their functions.

K₁

K₃