

Name.....

ADM No.....

School.....

Candidate's signature.....

Date.....

**231/3**  
**BIOLOGY**  
**PAPER 3**  
**(PRACTICAL)**  
**TIME: 1<sup>3</sup>/<sub>4</sub> HOURS**

**SCHOOL BASED FORM 4 COMMON EXAM**  
*Kenya Certificate of Secondary Education (K.C.S.E)*

**INSTRUCTIONS TO CANDIDATES**

1. Write your name and index number in the spaces provided.
2. You are required to spend the first 15 minutes of 1<sup>3</sup>/<sub>4</sub> hours allowed for this paper reading the whole paper carefully before commencing your work.
3. Answers must be written in the spaces provided in the question paper.
4. Additional pages should not be inserted candidates may be penalized for recording irrelevant information and for incorrect spellings especially of technical terms.

**FOR EXAMINERS USE ONLY.**

QUESTIONS	MAXIMUM SCORE	CANDIDATE'S SCORE
1	12	
2	15	
3	113	
<b>SCORE</b>	<b>40</b>	

*This paper consists of 7 printed pages. Candidates should check the question paper to ensure that all pages are printed as indicated and that no questions are missing.*

1. You are provided with 3 fruits juices. Labelled K, L and M. Put 2cm<sup>3</sup> of DCPIP solution in each of the three test tubes provided and label the test tubes K,L2 and M3. Add solution K drop wise into the test tube labeled K1, count and record the number of drops that completely de-colourises the DCPIP in the table below. Repeat the procedure using solution L and M with test tube L2 and M3 respectively.

Solution	Number of drops
K	
L	
M	

- a) Arrange the solutions K, L and M according to their ascorbic acid concentration starting with the most concentrated. (1mk)

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- c) What is the effect of boiling the above solutions. (1mk)

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- d) Apart from fruits, give other source of vitamin C (1mk)

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- e) Name two deficiency symptoms of vitamin C (2mks)

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- f) Using the filter paper provided, test for the food substance present in solution.

Q

Procedure (2mks)

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Observation

(1mk) \_\_\_\_\_

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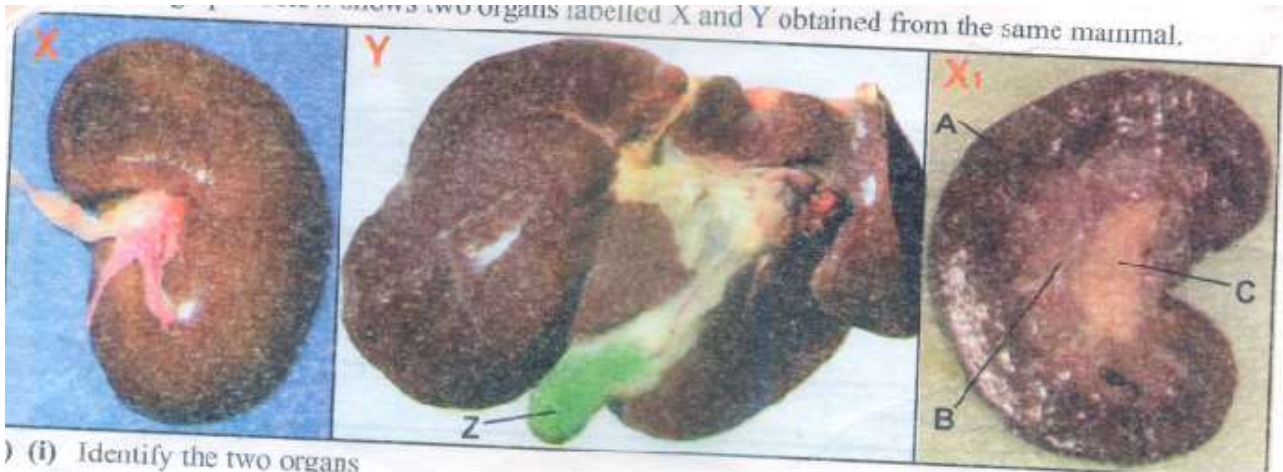
Conclusion (1mk)

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2. The photographs below shows two organs labeled X and Y obtained from the same mammal.



(i) Identify the two organs

a) i) Identify the two organs (2mks)

X \_\_\_\_\_ Y \_\_\_\_\_

ii) Give one reason for the identity of organ labeled X in (a) (i) above. (1mk)

b) Photograph X1 is the longitudinal section of organ labeled X. Name the parts labeled A, B and C.

A \_\_\_\_\_

B \_\_\_\_\_

C \_\_\_\_\_

c) i) Name the substance contained in the structure labeled Z in organ labeled Y (1mk)

ii) State two functions of substance you have identified in (d) (i) above. (2mks)

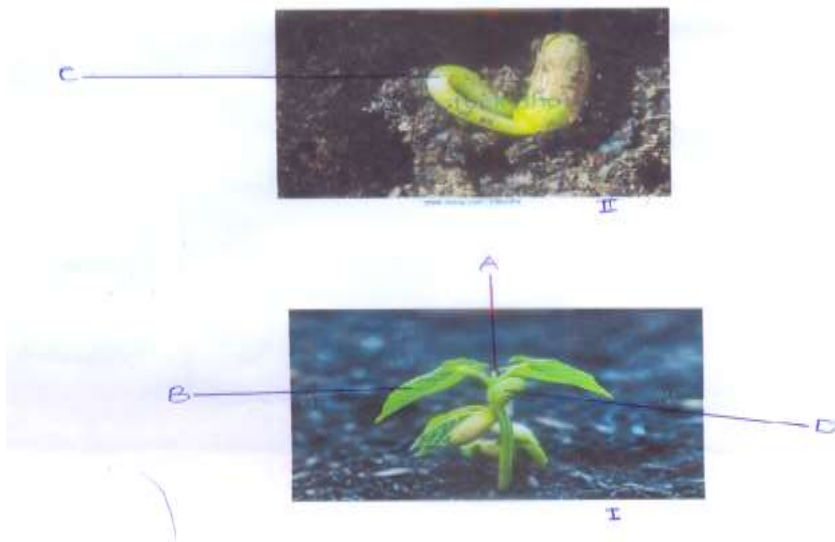
e) Give two homeostatic functions of the organ labeled Y. (2mks)

f) Name one disease that affects organs labeled X and Y (2mks)

X \_\_\_\_\_

Y \_\_\_\_\_

3. Examine the photographs I and II of seedling specimen shown below and answer the questions that follows;



a) Name the parts labelled A, C and D. (3mks)

A \_\_\_\_\_

C \_\_\_\_\_

D \_\_\_\_\_

b)(i) Name the class to which the specimen belongs. (1mk)

\_\_\_\_\_

(ii) Give two reasons, using observable features to support your answer in (b) (i) above (2mks)

\_\_\_\_\_

(c) Give two functions of the structure labeled D. (2mks)

\_\_\_\_\_

d) Explain how the curvature labeled C is formed (3mks)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

e) Name the type of germination exhibited by the seedlings. Give a reason for your answer. (2mks)

Type

\_\_\_\_\_

Reason

\_\_\_\_\_

\_\_\_\_\_