

Name.....Index No:.....

231/3

Candidate's Signature .....

BIOLOGY

Date: .....

PAPER 3

PRACTICAL

MARCH/APRIL- 2017

TIME: 1 ¾ HOURS



# SACHO HIGH SCHOOL

*Kenya Certificate of Secondary Education (K.C.S.E.)*

231/3  
Biology  
Paper 3  
1 ¾ Hours

## INSTRUCTIONS TO CANDIDATES

Write your **name** and **index number** in the spaces provided above.

**Sign** and write the **date** of examination in the spaces provided.

Answer **all** the questions in the spaces provided.

You are required to spend the first 15 minutes of the 1 ¾ hours allowed for this paper reading the whole paper carefully before commencing your work.

Additional pages must not be inserted.

Candidates should check to ascertain that all pages are printed as indicated and that no questions are missing.

Candidates must answer all questions in English

## For Examiners Use Only

Question	Maximum score	Candidate's score
1	14	
2	13	
3	12	
Total	40	

*This paper consists of 6 printed pages. Candidates should check to ascertain that all pages are printed as indicated and that no questions are missing*

1. You are provided with a food sample labelled solution **C**. Using the reagents provided; carry out tests to identify the food substances present in the sample. (11marks)

TEST FOR	PROCEDURE	OBSERVATION	CONCLUSION
1. Reducing sugars			
2. Ascorbic acid			
3. Proteins			

From the results above

- i) State the part of the digestive system where the digestion of the food substance begins. (2marks)
- .....
- .....
- ii) Name the deficiency disease arising from the food substance **C**. (1mark)
- .....

2. The photographs below show floral structures and germination process. Study them carefully then answer the questions that follow.



PLATE I



PLATE II



PLATE III

- a) (i) Describe the type of the ovary in **plate I**. (1mark)

.....  
 .....

- (ii) With reasons name the agent of pollination of the flower in **plate I**. (1mark)

Agent of pollination .....

Reasons.

.....

.....  
.....(3marks)

(iii) Identify the parts labeled in **plate I**. (3marks)

W .....

D .....

L .....

b) **Plate III** shows a plant obtained from **plate II**.

i) Identify the parts labelled. (3marks)

R .....

T .....

Q .....

ii) Explain the functions of the parts **R** and **T**. (2marks)

R.....

.....

.....

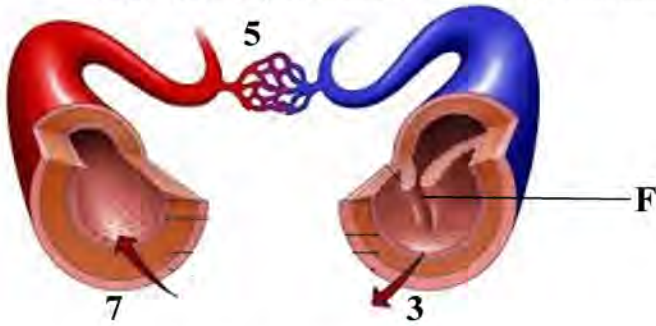
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3. Below are **diagrams** labelled **(a)** and **(b)** of specimens obtained from an animal. Examine them carefully then answer the questions that follow.



**Diagram (a)**

**Hi**

**Hii**

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**Diagram (b)**

(a) (i) In diagram (a), identify the structures labelled. (3marks)

- 3 .....
- 5 .....
- 7 .....

(ii) Give a reason for the identities **3** and **7** in (i) above. (2marks)

.....  
.....  
.....  
.....

(iii) Explain how blood vessel **5** is adapted to its function. (2marks)

.....  
.....  
.....

(iv) State the function of the structure labelled **F**. (1mark)

.....  
.....

(v) Identify the process by which certain materials pass out of structure **5**. (1mark)

.....

(b) **Diagram (b)** shows the components in **diagram (a)**.

(i) Identify structure **Hii** (1mark)

.....

(ii) Using an observable feature only, explain how the structure named in **b(i)** above is adapted to its function. (1mark)

.....  
.....  
.....

(iii) In what form is carbon(IV) oxide transported in structure **Hii** above. (1mark)

.....

(iv) Name a hereditary disease represented by structure **Hi**. (1mark)

.....