

231/3
BIOLOGY
PAPER 3 (PRACTICAL)
Time: 1³/₄ hours

KCSE 2023 PREDICTION MASTER CYCLE 6

Name Index Number.....

Candidate's Signature Date

Instructions to candidates

- a) Write your name and class in the spaces provided above.
- b) Sign and write the date of examination in the spaces provided above.
- c) Answer **ALL** questions in the spaces provided.
- d) Additional pages **MUST NOT** be inserted.
- e) Candidates will be penalized for incorrect spelling especially of technical terms and for use of slovenly language
- f) You are required to spend the first **15 minutes** of the **1³/₄ hours** allowed for this paper reading the whole paper carefully before commencing your work.
- g) **This paper consists of 5 printed pages. Candidates should check the question paper to ascertain that ALL the pages are printed as indicated and no questions are missing**

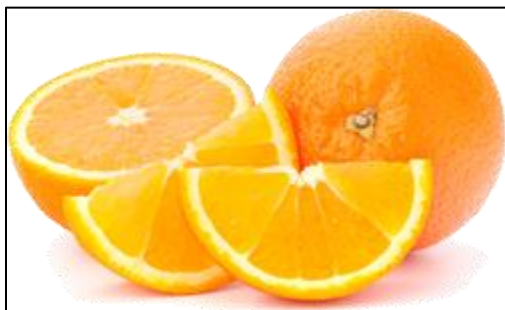
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Question	Maximum Score	Candidate's Score
1	14	
2	13	
3	13	
Total score	40	

1. You are provided with substance labelled P, Q, M, N and Z. P and Q are food substances, while M is dilute hydrochloric acid, N is dilute sodium hydrogen carbonate and Z is Benedicts' solution. Carry out the tests to determine the food substances present in P and Q. Fill in the table below. (12 marks)

Substance	Food substance	Procedure	Observations	Conclusion
P				
Q				

1. Below are photographs of specimens obtained from plants. Examine the photographs and use them to answer the questions that follow.



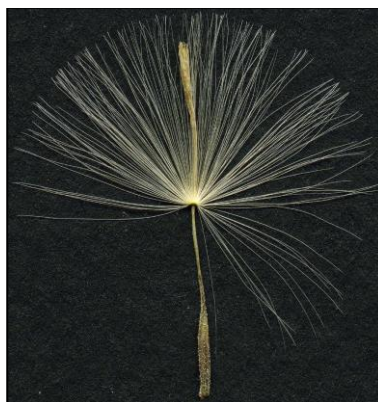
SPECIMEN A



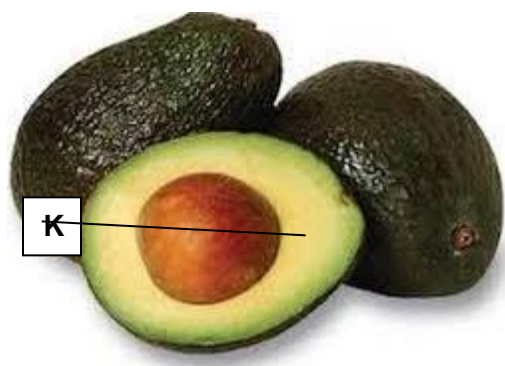
SPECIMEN B



SPECIMEN C



SPECIMEN D



SPECIMEN E



SPECIMEN F

a) In the table below name the mode of dispersal and the features that adapt the specimen(s) to that mode of dispersal. (12 marks)

SPECIMEN	MODE OF DISPERSAL	ADAPTIVE FEATURES
A		
B		
C		
D		
E		
F		

(a) (I) State the type of placentation in specimen A (1 mark)

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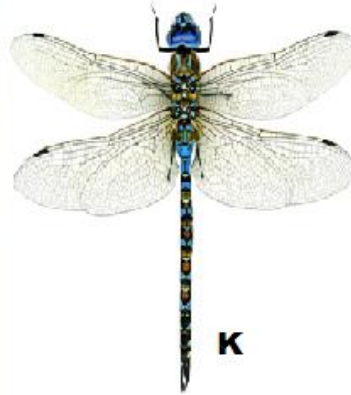
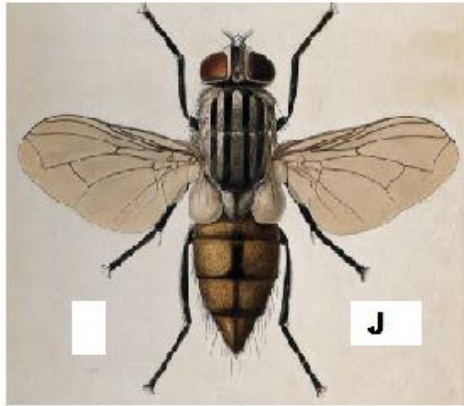
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(ii) Name the structure labeled **K** in specimen **E** (1 mark)

.....

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2. Below are photographs of two specimens, J and K. Both of them belong to the same phylum and class. Observe them carefully before you answer the questions that follow.



a) Name the class to which J and K belong and support your answer with two reasons. 3mks

J
.....

K
.....

b) Suggest why the circulatory fluid in J and K has no haemoglobin. 2mks

J
.....

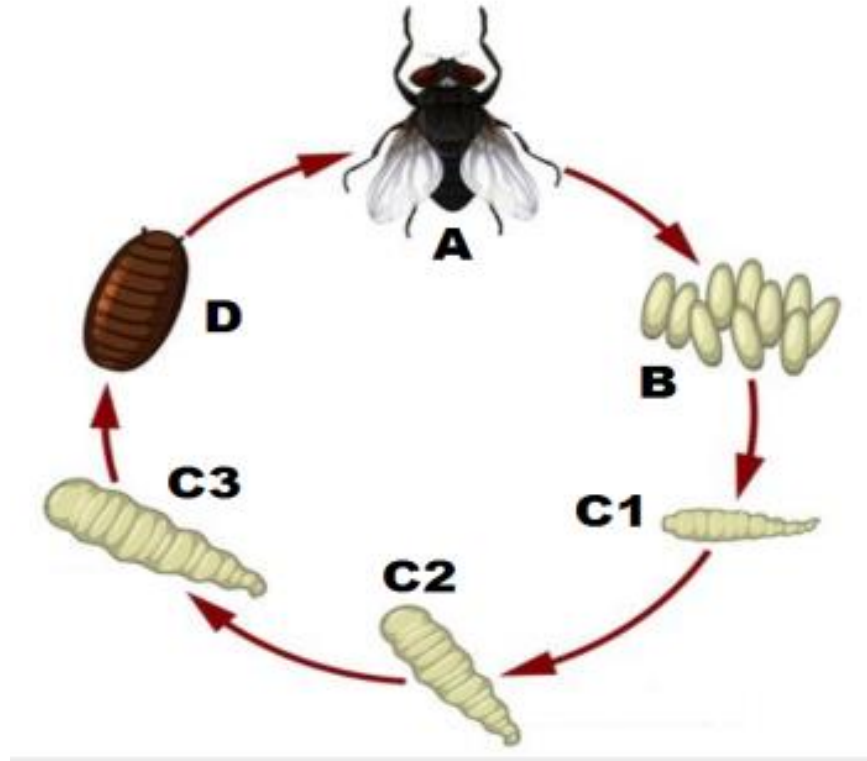
K
.....

c) Observe their wings and suggest the type of evolution that could have taken place to give rise to J and K, and then give a reason for your answer. (3mks)

J
.....

K
.....

d) Below is a diagram showing the life cycle of specimen J.



i) Identify the stage labeled D. (1mark)

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ii) Name the hormone responsible for the change from D to A. (1mark)

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iii) Explain the differences in the change from C2 to C3 and from C3 to D. (4marks)

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