NAME:_____ ADM.NO:_____

INDEX NO:_____ DATE:_____

231/3

PRE-MOCK

Kenya Certificate of Secondary
Kenya Certificate of Secondary Education

BIOLOGY

PAPER 3 (PRACTICAL)

TIME: 1 ¾ HOURS

PAPER 3

INSTRUCTIONS TO CANDIDATES

Write your name and admission number in the space 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.

FOR EXAMINERS USE ONLY.

Question	Maximum score	Candidates score
1	17	
2	12	
3	11	
Total score	40	

This paper consists of 5 printed pages. Candidates should check to ensure that all pages are printed as indicated and no questions are missing.

1.You are provided with specimens J,K and L.

a) Study the specimens and using observable features, complete the dichotomous key below and hence use the completed key to identify the taxonomic group of each specimen. 3mks

1 a Animal with segmented body ---------- go to 2

b Animal without segmented body ---------- go to 3

2 a Animal with flattened body ---------- Platyhelminthes

b Animal with cylindrical body ---------- Nematoda

3 a. Animal with jointed appendages ---------- go to 4

b Animal without jointed appendages ---------- Annelida

4 a. Animal with more than three pairs of legs ---------- go to 5

b ---------- ---------- go to 6

5 a. Animal with one pair of legs per segment ---------- Chilopoda

b. Animal with two pairs of legs per segment ---------- Diplopoda

6 a. ---------- ---------- go to 7

b. Animal without wings ---------- Isoptera

7 a. Animal with one pair of wings ---------- Diptera

b. ---------- go to 8

8 a. Animal with two pair of membranous wings ---------- Hymenoptera

b. .Animal with a pair of hard forewings and a pair of membranous hind wings ---------- Coleoptera

b) Identify the taxonomic group of each specimen provided stating the steps followed. 6mks

Specimen	Identity	Steps followed
J		
K		
L		

ci) Name the kingdom to which the specimens J,K and L belong. 1mk

---

ii) State two observable features that enabled you to arrive at your answer in c(i) above. 2mks

---

---

d) Explain how the forewings and hindwings of Coleoptera are adapted to their functions. 4mks

---

---

e)Specimen K is an important pollinator. State one observable adaptation of the hind limb to this function. 1mks.

---

2. You are provided with specimens Q,R,S,T and U.

a) Suggest the habitat in which specimen R and S are typically found and give the term use to describe each specimen. State one observable feature to support your answer in each case. 6mks

Specimen	Habitat	Term	Feature
R			
S			

b(i)What type of environment is specimen Q adapted to? 1mk

(ii) State one observable adaptation of the specimen Q to support your answer in b(i) above. 1mk

---

c (i) Using a glass rod provided, press the stem of specimen T against the bench.

Record your observation. 1mk

(ii) From your observation suggest how the specimen is adapted to its habitat . 1mk

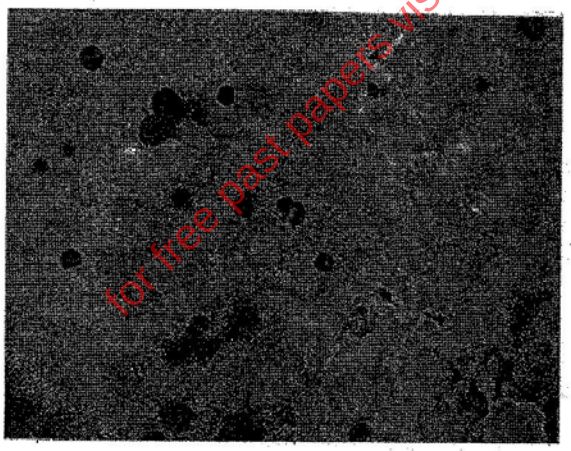
---

d(i) What type of evolution do specimen T and U exhibit? 1mk

(ii) What is the biological term given to the evolutionary structures that exhibit the type of evolution named in d(i) above? 1mk

---

3. Study the photograph of specimen X below and answer the questions that follow.



a(i) Label any three parts **on** the diagram. 3mks

(ii) State the functions of the three parts you have labeled. 3mks

Part	Function

b (i) State the Kingdom to which the specimen belongs. 1mk

(ii) Give one reason to support your answer. 1mks

---

c) Describe how the organism feeds. 3mks

END