

231/3

NAME..... INDEX NO.....

SIGNATURE..... DATE.....



BIOLOGY

PAPER 3

(PRACTICAL)

TIME: 1 $\frac{3}{4}$ HOUR

INSTRUCTIONS TO CANDIDATES

Answer all the questions in the spaces provided.

You are required to spend the first 15 minutes of the 1 $\frac{3}{4}$ 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	09	
3	14	
Total score	40	

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

1. You are provided with specimen P and Q. Examine them carefully and answer the questions that follow.

(a). State three observable differences between P and Q. (3mks)

Specimen P	Specimen Q

(b) Identify the parts of the flower from which specimen **P** and **Q** developed. (2mks)

P -----

Q -----

(c i). Make a longitudinal section of specimen P. Draw a well-labelled diagram of one half with all its

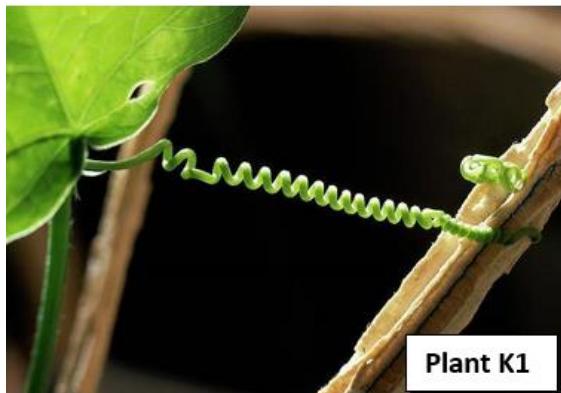
Contents intact. (4mks)

(ii). State the functions of any two structures in (c) (i) above. (2mks)

(d). Using a mortar and pestle crush specimen Q, add 5ml distilled water to make a **solution Q** and carry out appropriate tests using the reagents provided. (6mks)

Test	Procedure	Observation	Conclusion

2. Study the photos below.



a) Name:-

i) The stimulus operating in **Plant K1**. (1mk)

ii) The type of response being investigated in **Plant K2**. (1mk)

iii) Suggest a control set up for **Plant K2** investigation. (1mk)

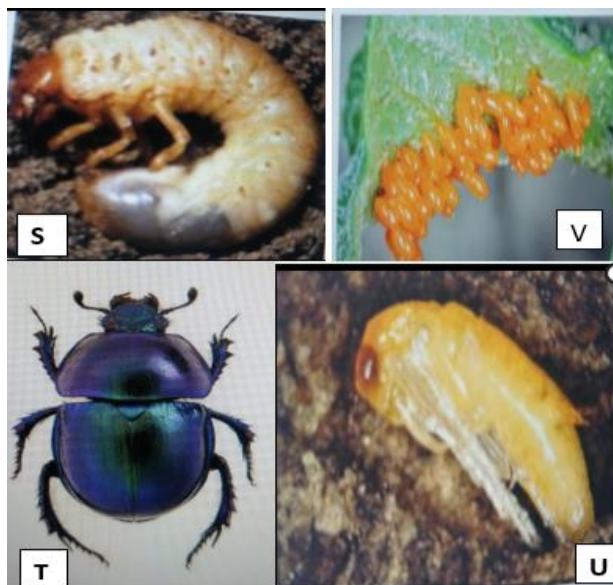
b) Describe the role of auxins in the response exhibited by **Plant K1**. (4mks)

c) What is the biological value of the tropisms evident in: -

i) **Plant K1** (1mk)

ii) **Plant K2** (1mk)

3. Below are photos of a certain arthropod at different stages of its life cycle.



a) Identify the stage of the life cycle represented by organism **S**. (1mk)

b i) Name the stage that immediately precede and succeed organism S in the life cycle. (2mks)

Preceeding stage

Succeeding stage.

ii) What name is given to the complete life cycle of the arthropod? (1mk)

c) Name the gaseous exchange system of organism **S**. Give a visible feature that supports your answer. (2mks)

d i) What type of food does organisms **S** feed on? Give a reason to support your answer.
(2mks)

ii) State the significance of stage **U** in the life cycle of the beetle. (2mks)

iii) How is specimen **T** adapted to locomotion in its habitat ? (2mks)

e) State the role of the following in the life cycle of the arthropods. (2mks)

i) Juvinile hormone.

ii) Moulting stimulating hormone.
