

# FORM 4 TERM 1 OPENER

# BIOLOGY

NAME..... ADM NO.....

CLASS..... SIGN.....

INDEX NO..... DATE.....

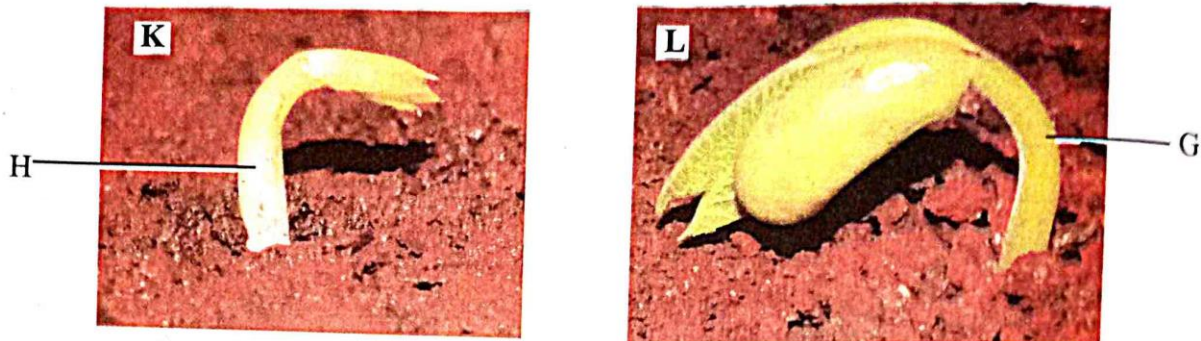
## BIOLOGY PP3

### FORM 4

40MKS TIME 1HR 45MINS

Answer all the questions in the spaces provided.

1. You are provided with photographs of seedlings labeled K and L. examine them



(a) Given that the two plants belong to the same class, name the class and give a reason based on the observable features on any of the two seedlings. (2mks)

(i) Class

(ii) Reason:

(b) State giving a reason the type of germination that occurs in each of the two seedlings. (4mks)

(i) K

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Reason

L

Reason

(c) Name the parts labeled H and G on the seedlings. (2mks)

H

G

(d) Name the type of roots system that will develop in the two seedlings. (1mk)

(e) The roots of both seedlings may develop swelling later in life.

(i) Name the organisms that are to be found in the swellings. (1mk)

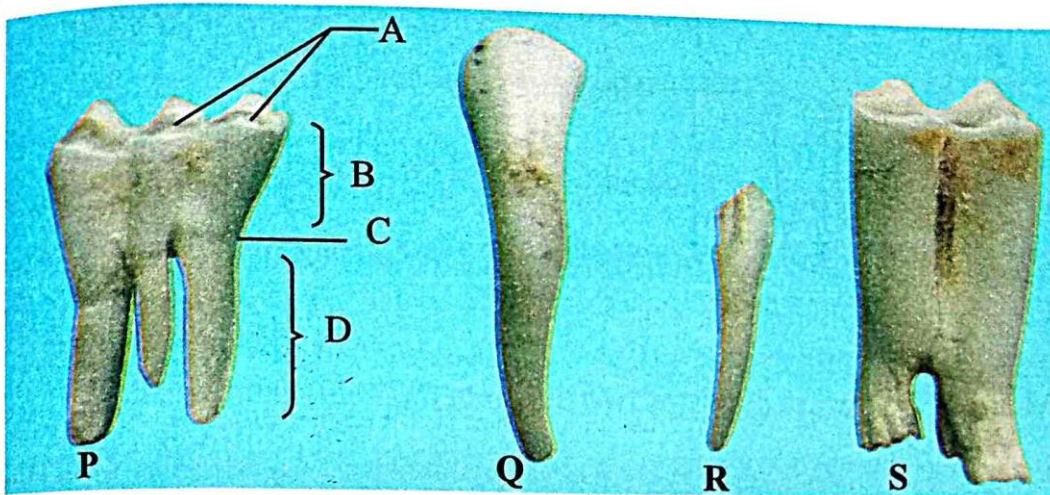
(ii) What is the role of the organisms that you have mentioned in (i) above. (1mk)

(iii) Name and explain the relationship that exists between the organisms you have named in (ii) above and the plants. (3mks)

2. You are provided with photographs of specimens labeled P, Q, R and S which were obtained from the same animal. Examine them

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(a) With a reason identify P and Q.  
P

(4mks)

Reason

Q

Reason

(b) Using observable features only state.  
(i) One similarity between specimen Q and R.

(1mk)

(ii) One difference between specimen R and S.

(1mk)

(c) Explain how specimen S is adapted for its functions.

(2mks)

(d) In specimen P name the four parts labeled.

(4mks)

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- A-
- B-
- C-
- D-

3. You are provided with a mature orange fruit labeled specimen H, 0.01% D.C.P, IP solution, Benedict's solution, iodine, dropper, means of heating, 3 test tubes, 1 test tube holder, test tube rack, filter paper, filter funnel, 1 100ml beaker.

(a) Cut specimen H transversely into 2 halves. Squeeze the juice from the two halves into a small beaker. filter the juice and discard the residue. Using part of the juice and the reagents provided only, test for the food substances in the juice and record observations and conclusions in the table below.

Food	Procedure	Observations	Conclusion
Starch			
Reducing sugar			
Vitamin C			

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(b) Using the other half, observe it carefully draw and label its parts.

(4mks)

(c) Name deficiency disease in human that may result from deficiency of Vitamin C.

(1mk)

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