

NANDI EAST DISTRICT JOINT EVALUATION TEST 2009

231/3

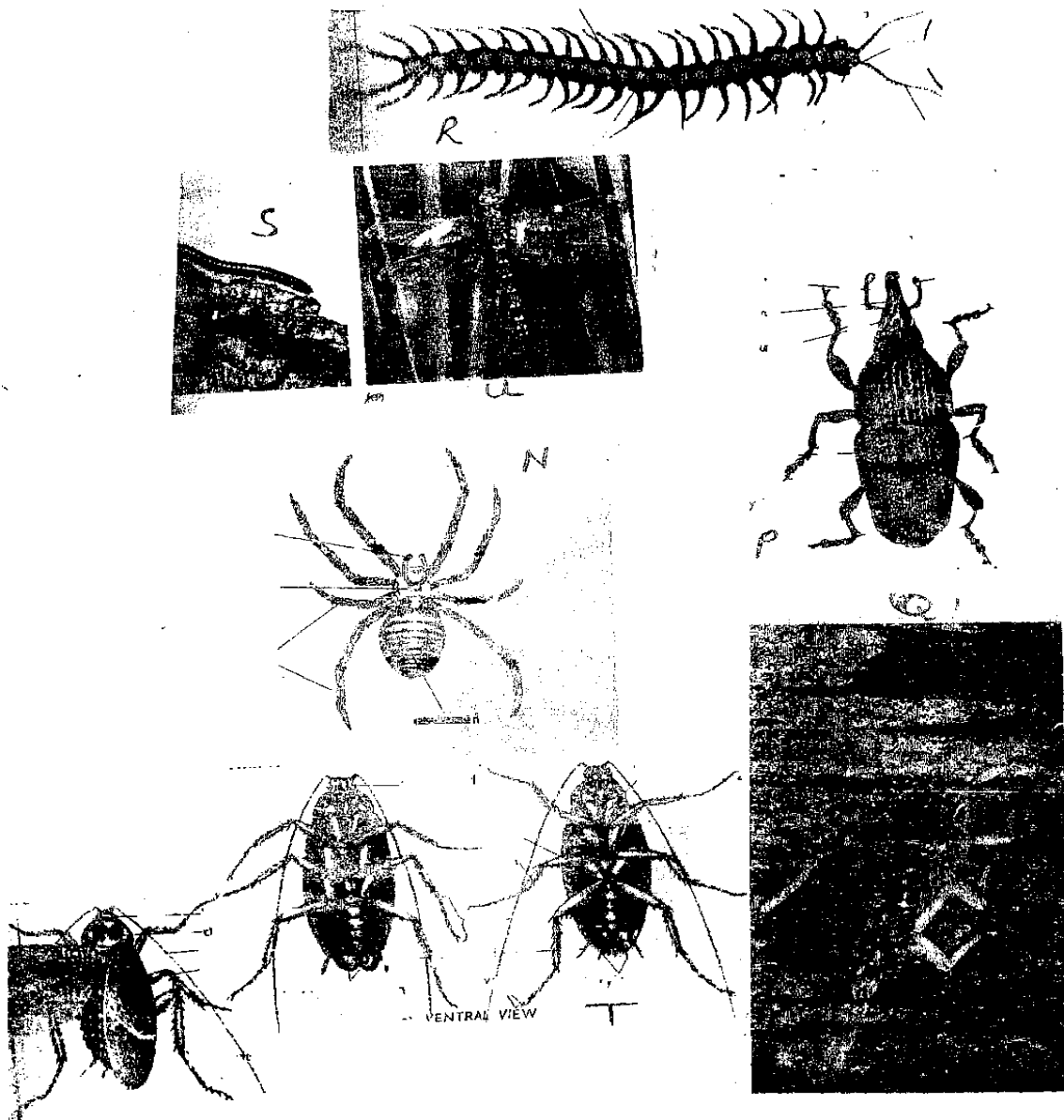
BIOLOGY

PAPER 2(PRACTICAL)

JULY/AUGUST, 2009

TIME: 1 ¾ HOURS

1. Below are photographs of animals labeled N,P,Q,R,T and U. They all belong to the same phylum, but are classified into different classes. Examine them.



- (a) (i) Name the phylum to which the above animals belong.  
Phylum: (1 mark)
- (ii) Give reasons for your answer in (a)(i) above. (3 marks)
- (b) With reasons, classify the animals labeled P,Q,S and U into their respective classes
- P and U  
Class: (1 mark)  
Reason: (1 mark)
- N and Q  
Class: (1 mark)  
Reason: (1 mark)
- (c) State two observation differences between animals labeled R and s.

(2 marks)

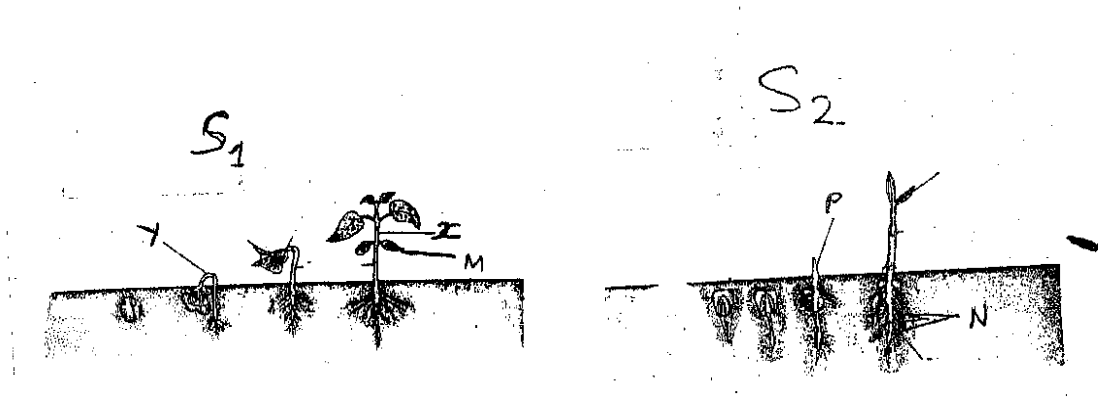
- (d) (i) Name the habitat for specimen T. (1 mark)
- (ii) What observable features adapt the specimen T to its habitat?  
(2 marks)

**You are provided with solutions labeled A and b.**

Carry out the following tests to determine their identity.

- (a) To 2mls of solution A, add two drops of iodine and shake.
- (i) State the observation. (1 mark)
- (ii) Give your conclusion (1 mark)
- (b) To 2 mls of solution to add equal quantity of Benedicts solution heat to boil.
- (i) State your observation. (1 mark)
- (ii) Give your conclusion (1 mark)
- (c) To 2mls of solution A, add equal quantity of dilute hydrochloric acid, heat to boil, cool then add sodium hydrogen carbonate drop wise until effervesces. Stops: Add three drops of Benedicts solution and heat
- (d)
- (i) Write down you observation (2 marks)
- (ii) from your observations in (b) and (c) above, with reasons. State the identity of solution A. (3 marks)
- (e) To 1ml of solution A add equal quantity of solution B, leave the set-up for fifteen minutes in a water-bath maintained at 37<sup>0</sup>C. Perform Benedicts test as in (b) above.
- (i) Accounts for the results. (4 marks)

3. Below are photographs of specimens obtained from plants undergoing certain biological process Labeled  $S_1$  and  $S_2$ . Examine them.



- (a) Name the biological processes represented in the photographs.  
 (b) How do the process you've named in (a) above differ in photographs  $S_1$  and  $S_2$

$S_1$	$S_2$

- (c) (i) Name the parts labeled Y and X  
 X:  
 Y: (2 marks)
- (ii) State the functions of the structures labeled M, N and P.  
 M: (2 marks)  
 N: (1 mark)  
 P: (1 mark)
- (d) (i) using the roots and leaves, name the classes of specimens  $S_1$  and  $S_2$ .  
 $S_1$ :  
 $S_2$ : (2 marks)
- (ii) Give reasons for your answer in (b) (i) above (2 marks)