Name	
Index number	
Signature	
P553/3	
Biology practical	
Paper 2	Peas .
August 2023	SMARTAID SCHOOLS IN AFRICA

PEAS NETWORK MOCK EXAMINATIONS UGANDA CERTIFICATE OF EDUCATION BIOLOGY PRACTICAL PAPER 2

2 HOURS

Instructions to candidates

- ❖ Answer all questions.
- ❖ All answers must be written in spaces provided.
- Use sharp pencils for your drawings.
- ❖ Coloured pencils or ink must not be used.
- ❖ Additional pages must be inserted.

Question	Marks
1	
2	
2	
3	
Total	
Total	

1. You are provided with solutions, dilute hydrochloric acid, dilute sodium hydroxide and distilled water.

You are also provided with 6 pieces of liver and a razor blade. Cut a small piece liver measuring 0.5x0.5x0.5, boil one piece for 5 minutes.

Carry out the following tests using liver and the solutions provided.

Record your observations and deductions in the table below. (12 marks)

a)

Tests	Observations	Deductions
(i)To 3cm ³ of solution x,		
add a piece of un boiled		
liver.		
(ii) To 3cm ³ of solution x,		
add 1cm ³ of dilute sodium		
hydroxide solution		
followed by a piece of un		
boiled liver.		

(iii) To 3cm ³ of solution x, add 1 cm ³ of dilute hydrochloric acid Followed by a piece of un boiled liver.	
(iv)To 3cm³ of solution x, add 1 cm³ of distilled water followed by a piece of un boiled liver.	
(v)To 3cm ³ of solution add a piece of boiled liver.	
(vi) To 3cm ³ of solution x, add a piece of un boiled liver.	

b) What is the nature of solution x
•••••••••••••••••••••••••••••••••••••••
•••••••••••••••••••••••••••••••••••••••
b) (ii) explain the results in tests;
(ii)
•••••••••••••••••••••••••••••••••••••••
(iii)
(vi)
•••••••••••••••••••••••••••••••••••••••
c) State two properties of the active substance in the liver (1 mark)
•••••••••••••••••••••••••••••••••••••••
•••••••••••••••••••••••••••••••••••••••

2. You are provided with specimens B, C, a	nd D which are animals.
(a) State the phylum and class to which they and class given. (6 marks)	belong. Give two reasons for the phylum
Phylum	
••••••	••••••
Reasons	
Class	••••••
Reasons	•••••••••••••••••••••••••••••••••••••••
•••••••••••••••••••••••••••••••••••••••	
(b) Examine the specimens C and D using a l	hand lens where necessary and describe three
structural differences between the specimens	. (3 marks)
Specimen C	Specimen D

(C) (i) Describe the wings of specimen B (2 marks)
•••••••••••••••••••••••••••••••••••••••
(ii) How are the wings of specimen B adapted to their functions?
•••••••••••••••••••••••••••••••••••••••
d) Cut off the wings of specimen B as close to the body as possible. Draw and label the dorsal view of the thorax with the right hand leg. (7 marks)
•••••••••••••••••••••••••••••••••••••••
••••••

	a are provided with specimens R, S and T which are plant parts. Cut the transverse ns of the specimens R and S.
	a) (i) Identify the plant parts to which the specimens belong. Give two reasons for your answer. (3 marks)
	Identity
	Reasons
•••••	
	(ii) State four structural differences between R and S (4 marks)
•••••	
• • • • • • •	
•••••	

Specimen R	Specimen S
b) Using observable features, describe	how each specimen is dispersed.
(i) Specimen R	
••••••	••••••
(ii)Specimen S	
(
••••••	••••••
••••••	
•••••	
••••••	••••••
•••••	

(iii)Specimen T				
•••••••••••••••••••••••••••••••••••••••				
•••••				
•••••				
•••••				
•••••				
C) Draw and label the mesocarp and internal structures insiguour magnification.(7 marks)	de it	of speci	men S.	State

END