NAME:		INDEX NO:	
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BIOLOGY
PRACTICAL
Paper 2
August, 2019
2 hours

UNNASE MOCK EXAMINATIONS

Uganda Certificate of Education

BIOLOGY PRACTICAL

PAPER 2

2 HOURS

INSTRUCTIONS TO CANDIDATES:

- *Answer **all** questions.*
- *Drawings must be made in the spaces provided.*
- *Use sharp pencils for your drawings.*

FOR EXAMINER'S USE ONLY.

Question	Marks	Examiner's signature
1		
2		
3		
Total		

1. You are provided with six pieces of unboiled liver, solution A, hydrochloric acid, sodium hydroxide and distilled water. Boil one pieces of the liver for 10minutes. Carry out the following tests using the liver and the solutions. Record your observations and deductions in the table below.

(12marks)

Tests	**Observations**	**Deductions**
i) To $3cm^3$ of Solution A in a test tube, add one piece of unboiled liver.		
ii) To $2cm^3$ of Solution S in a test tube, add $1cm^3$ of hydrochloric acid and then add one piece of unboiled liver.		
iii) To $2cm^3$ of Solution A in a test tube, add $1cm^3$ of sodium hydroxide and then add one piece of unboiled liver.		
iv) To $2cm^3$ of Solution a in a test tube, add $1cm^3$ of distilled water and then add one piece of unboiled liver.		
v) To $3cm^3$of Solution A in a test tube, add one piece of boiled liver.		
vi) To $3cm^3$ of distilled water in a test tube, add one piece of unboiled liver.		

b) What conclusions can you make from the results of tests (ii), (iii) , (iv) and (vi). *(5marks)*

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c) Explain your results in test (v). *(2marks)*

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d) From your results, suggest the nature of solution A. *(1mark)*

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2. You are provided with specimens J, K, T and N. Open up the specimens T and N longitudinally and cut specimen J transversally. Use the specimens to answer the questions that follow.

a) Giving two reasons, identify what plant parts the specimens are. *(3marks)*

Plant parts .....

Reasons .....

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b) Using observable features, describe how each of the specimens T and N are dispersed. *(4marks)*

Specimen T

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Specimen N

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c) Describe the arrangement of seeds in specimens J and T. *(4marks)*

Seed arrangement in J

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Seed arrangement in T

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d) Based on the features of the pericarp, number of seeds and sutures; construct a dichotomous key to identify the specimens J, K, T and N.

(3marks)

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e) Draw and label the transverse section of specimen J. *(6marks)*

3. You are provided with specimens W and X which are animals

a) i) State the phylum to which specimen W belongs. Givetwo reasons for your answer. *(1½ marks)*

Phylum .....

Reasons .....

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ii) State the order to which specimen X belongs. Give tworeasons for your answer. *(1½ marks)*

Order .....

Reasons .....

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b) Carefully observe specimens W and X using a hand lens where necessary. Describe the body, wings and legs of the specimens. *(6marks)*

Specimen W

Body .....

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Wings .....

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Legs .....

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Specimen X

Body .....

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Wings .....

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Legs .....

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c) How is specimen W adapted to its functions in its habitat? (4marks)

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d) Remove the head and spread the wings of specimen X to expose the hind limbs and abdomen. Draw and label the dorsal view of the thorax, abdomen, left wing and right hind leg. (7marks)

****** END ******