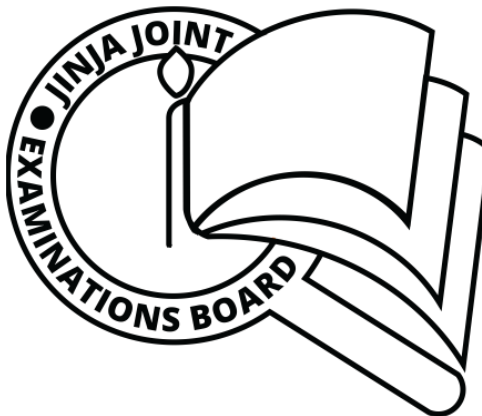


Name:.....Centre/Index No:...../.....

P530/3
BIOLOGY
PRACTICAL
Paper 3
AUGUST, 2022
3¼hours



JINJA JOINT EXAMINATIONS BOARD

Uganda Advanced Certificate of Education

MOCK EXAMINATIONS – AUGUST, 2022

BIOLOGY

PRACTICAL

Paper 3

3¼ hours

INSTRUCTIONS TO CANDIDATES

Answer **ALL** questions.

Answers must be written in the spaces provided.

Additional papers must not be inserted

For Examiner's Use Only

QUESTION	MARKS
1	
2	
3	
TOTAL	

1. You are provided with a freshly killed animal specimen **T**. Place it on a dissecting board with the ventral side upmost.

(a)(i) Measure the length of the fore limb and of the hind limb. Record your values. (02 marks)

Fore limb

Hind limb

(ii) Work out the ratio of fore limb: hind limb. (01 mark)

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(iii) State **three** differences between the fore limbs and hind limbs. (03 marks)

Fore limbs	Hind limbs
(i)	
(ii)	
(iii)	

(b) What is the significance of the difference between fore and hind limbs?

(03 marks)

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(c) Dissect the specimen to expose the digestive system and other underlying structures. Draw and label the structures of the digestive system? (12 marks)

(d) Continue to dissect to expose the blood vessels that drain blood from the left fore limb into the heart and right hind limb from the heart. Draw and label the blood vessels. (15 marks)

2. You are provided with solutions **A**, **B** and **C**. You are required to find out the food values in each solution by carrying out food tests in the table **1** below.

(20 marks)

(a) **Table 1**

Test	Observation	Conclusion
(i) Starch test on solution A		
(ii) Starch test on solution B		
(iii) Starch test on solution C		
(iv) Biuret test on solution A		
(v) Biuret test on solution B		
(vi) Biuret test on solution C		

(b) Label three test tubes as 1, 2 and 3. Cut part of the liver, lungs, and thigh

muscles. For each measure a cut of 1mm x 1mm x 1mm and place in test tubes 1, 2 and 3 respectively. Cut some hair from the skin of the specimen and put in another test tube and label it test tube 4. In test tube 1, add 1cm³ of distilled water; in test tube 2, add 1cm³ of sodium hydroxide solution and in test tube 3 add 1cm³ of hydrochloric acid; in test tube 4, add 1cm³ of distilled water. Finally in each test tube add 1cm³ of hydrogen peroxide. Tabulate your observations in the space below. (10 marks)

3. You are provided with specimens **O, P, Q, R, S** and **T** which are plant parts. Study the specimens carefully to answer the questions below.

(a)(i) Describe the floral parts of **O, P, Q** and **R**.

O (03 marks)

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P (03 marks)

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Q (03 marks)

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R (03 marks)

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(ii) Draw the floral map of **O** and **P**.

Floral map of **O**. (02 marks)

(iii) State the floral formula of **Q** and **R**.

Floral formula **Q**

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Floral formula **R**

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(b) Construct the dichotomous key to identify the specimens **O, P, Q** and **R**.

(03 marks)

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(c)(i) Mount one thread of **S** on glass slide and observe under both low and high power of a microscope. Draw and label the only 2 cells of specimen **S**.

(08 marks)

(ii) Mount one thread of specimen **T** on a glass slide and observe the cells under both low and high power of a microscope. Give **five** differences between cells in

specimen **S** and **T**.
(05 marks)

Specimen S	Specimen T
(i)	
(ii)	
(iii)	
(iv)	
(v)	

END