Name: …….Index No: ……..

553/2
Biology
Paper 2
July/August 2022
2hours

BUGANDA EXAMINATIONS COUNCIL MOCKS

Uganda Certificate of Education

BIOLOGY (Practical)

PAPER 2

2HOURS

INSTRUCTIONS TO CANDIDATES

- Attempt all questions.
- All drawings must be made in the spaces provided.
- Drawings should be made with a sharp pencil.

FOR EXAMINER'S USE ONLY	
Question 1	
Question 2	
question 3	
TOTAL	

1. You are provided with solutions of different concentration labeled **A**, **B** and **C** and specimen **P**. Follow the procedure below for accurate experimental result.

(a) Procedure

(i) With a cork borer, cut four cylinders from specimen **P** and trim them to 4cm long.

(ii) Label four test tube as **A**, **B**, **C** and **D**.

(iii) Pour $6cm^3$ of solutions **A**, **B** and **C** into corresponding test tubes.

(iv) Gently drop one cylinder into each test tube.

(v) Let the cylinders stand in test tubes for 30 minutes.

(vi) After 30 minutes, remove the cylinders and label them using the corresponding test tube labels for easy identification.

(vii) Feel cylinders; **A**, **B** and **C** and describe their difference in texture and turgidity in table 1 below. (04 marks)

Table 1

Cylinder	**A**	**B**	**C**
Texture			
Turgidity			

(b) Feel the cylinders **A, B** and **C** with your hands and explain their differences in their turgidity in relation to cylinder **D**.

Cylinder **A** (03 marks)

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Cylinder **B** (03 marks)

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Cylinder **C** (02marks)

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(c)(i) Give three significance of the process involved in experiment 1(a) above to plants. (03marks)

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(ii) Give significance of difference in turgidity of cylinder **A** and **C** in table **I** above to plants. (03marks)

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2. You are provided with specimens labeled **R** and **Q**. Gently pluck off and discard leaf like structures of specimen **R** and **Q** basing on remaining parts of specimens **R** and **Q**.

(a) With reasons, identify the plant part represented by specimens **R** and **Q**. (02marks)

Plant part

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Reasons

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(b)(i) Describe the structure of anthers and filament of specimen **Q**

Filament of specimen **Q** (02marks)

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Anthers of specimen **Q** (02marks)

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(ii) Give adaptations of androecia of specimen **Q** to their function.
(03marks)

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(c) Outline the differences between specimen Q and R basing on their remaining parts.
(03marks)

Specimen Q	**Specimen R**

(d)(i) With reasons state the type of pollination for specimen **R**. (03marks)
Type of pollination

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Reasons

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(ii) Draw and label the remaining floral structures of specimen **R**. (05marks)

3. You are provided with specimen labeled **M** and **E**.

(a) With a reason identify the phylum of specimen **M**. (04marks)

Phylum of specimen **M**

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Reasons

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(b)(i) Describe the structures of specimen **E**. (02marks)

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(ii) State how specimen **E** is adapted to living in its habitat. (04marks)

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(c) Give four difference between specimen **E** and **M**. (04marks)

Specimen **E**	Specimen **M**

(d)(i) With a reason suggest the feeding habits of specimen **M**. (02marks)

Feeding habit of specimen **M**

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Reasons

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(ii) Draw and label the main front body part of specimen **M** from its lateral view. (04marks)

END