

NAME: _____ SIGNATURE: _____

P553 /1

Biology

PAPER 1

NOVEMBER, 2024

2hours



**CLEVERLAND HIGH SCHOOL-MAYA
END OF YEAR ASSESSMENT EXAMS 2024**

Senior Two

BIOLOGY

PAPER 1

2 hours

Instructions:

- Answer all items

SECTION A

(attempt all items in this section)

Item 1

Mr. Baingana is a large scale farmer. However he has experienced hail storms in the previous season which damaged his pumpkin plantation. The leaves were torn, the flowers were disoriented which led to poor yields.

Support material a garden hit by hail storm



Task

- (i) Explain the physiological plant process that were affected by the hail storm. (6 scores)

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(ii) How can Mr. Baingana improve his crop yields.(4 scores)

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Item 2

A group of senior 2 students conducted an experiment to assess the effect of light intensity on the rate of photosynthesis. The study was conducted successfully and the results were tabulated.

Number of bubbles per-minute	1 5	10	6	4	2	1
Distance in(cm) of test tube from light source.	1 0	20	40	60	80	10 0

- (i) Present the above data on a graph paper.(4 scores)
- (ii) Briefly describe and explain the trend of the graph. (6 scores)
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SECTION B

(Attempt all items in this section)

Item 4

Mr. Barigye, a resident of Kashari with blood group AB married a wife with blood group O and they gave birth to four children with respective blood types. Their first daughter has blood type AO(blood group A), their second born has also blood types AO, their third and fourth children both have blood types BO. In the past few weeks their first born and last born children contracted severe cerebral malaria and as a result were admitted to the nearby health center IV facility, but unfortunately the facility was not equipped with the blood of their type and they were referred to Mbarara Regional Referral Hospital.

Task.

Assuming you are a laboratory technician at MRRH, help Mr. Barigye and the wife understand how to overcome the challenge. Explain to them who can donate blood to their sick children and why safety precautions should be followed to have a successful blood transfusion. Explain to the children, the possibility of both parents donating blood to them. (10 scores)

Item 5

Graham Carson, an athlete ate a carbohydrate and protein meal in the morning before going for the **Copa Coca-Cola** National competitions in Arusha, he believes that meal will help him generate energy to win the competitions. However his brother Kugonea Eliton suggests that the meal will make him sluggish and he won't be able to run very fast. But Graham insisted that the food ate undergoes several physiological and chemical changes to yield energy.

Task

Explain to Graham's brother, the physiological and chemical changes that both meals went through to reach the active cells. (15 scores)

END

MERRY X-MAS AND HAPPY NEW YEAR