

UGANDA ADVANCED CERTIFICATE OF EDUCATION**S.5 CHEMICALS OF LIFE ASSESMENT 2025****TIME 2 HOURS****NAME.....****Item 1**

Mr. John a resident of Kijangi village could only depend on food stuffs such as posho, and cassava, but he confused why he did not have big size as his friend Mr. Daniel who had 85kgs who fed on G nuts and fish. On finding he had 45kgs where he could work tiredly without fatigue. Mr. John had little knowledge on what his meal contained.

Task

As a biology student;

i) Help Mr. John to explain the structure of the food component he fed on ? (07mks)

ii) How is the meal he ate suited to its function .? (06mks)

iii) Explain why the meal fed on by Daniel considered as better energy storage compound in animals than the meal fed on by Mr. John.?

Item2

All living organisms in order to function normally ,the needs "optimum temperature of about 37°C , and suitable for the protein compounds in their body to function normally ". This statement was said by **Tr. Ibrahim** during a biology lesson at **Kingsway SS**. This left most suited confused on how this could be suitable.

Task

Using your knowledge of chemicals of life.

a)(i) Identify the protein compound stated in the scenario? (1mks)

ii) How are stated condition in the scenario affect the activity of protein compound in (a) ? 10mks

b) From the scenario , the protein compounds can be related to "a lock with the key " in real life ; justify the statement on how this phenomenon works. ? 09mks

Item 3

Beans are preferred by most institutions to be fed on by workers and the people ; During the lesson of digestion and assimilation of beans in the body ; the teacher said that beans are made up amino acids which make up polypeptides ;This left most students confused about the statement.

Task

a) As a student of biology;

i) Describe how the amino acids in the beans formed the polypeptides?

ii) Help students to describe the structure of amino acids.?

lii) Further, illustration the biological function of beans in the body?

“The biggest mistake in life is to think we still have time.”

By TR. MUSINGUZI IBRAHIM

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