

Instructions: Attempt all questions and answer in the spaces provided.

When viewed under an electron microscope, the cell of a bacterium *Helicobacter pylori*, has significant differences from a mesophyll cell extracted from a plant leaf. However, they also share some similar features such as cell membranes, cell walls and cytoplasm.

[illegible][illegible]

[illegible]

Item two
During the biology lesson, the teacher said *without water, life could not exist on this planet*. Paul a S.5 biology student got confused about it.

The teacher continued to mention that the roles of water in organisms are due to its small size, colour, polarity and ability to form hydrogen bonding.

a) Justify the teacher's statement that confused Paul.

[illegible]

This image shows a full page of white paper with horizontal dotted lines, typical of primary school writing paper. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

[illegible]

Item three

Musa a S.5 student had a burning stomach pain and bloating and did not manage to attend lessons. During the lesson the biology teacher taught about the tissues that cover the surfaces of the digestive tract/gut and he highlighted that they perform several functions including protection, secretion, absorption and many others.

- a) Identify the types of tissues the teacher highlighted.

[illegible]

- b) Show how the tissues the teacher highlighted are adapted to perform their functions.

[illegible]

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[illegible][illegible]