## BIOLOGY DEPARTMENT

## S.5 TOPICAL TESTS SERIES

## SET TWO APRIL/MAY 2024 TERM 1

## Attempt any 4 questions

- 1. a) Describe the structure of following organelles
- i) Chloroplast (05 marks)
- ii) Mitochondrion (5 marks)
- b) How is the chloroplast adapted to its function (05 marks)
- c) What are the differences between mitochondrion and chloroplast (05 marks)
- 2. a) Describe the structure of the membrane according to fluid mosaic model (08 marks)
- b) Explain the different factors that affect membrane fluidity (08 marks)
- c) State any 4 importances of proteins in cell membrane (04 marks)
- 3. a) describe the structure of the cell nucleus (06 marks)
- b) Eukaryotic cells have intracellular and extracellular components. Outline the functions of one named extracellular component (06 marks)
- c) Differentiate between cell wall and plasma membrane (08 marks)
- 4a) Distinguish between two types of lysosomes (04 marks)
- b) Describe the different roles of lysosome (12 marks)
- c) Outline any 4 importances of rough endoplasmic reticulum (04 marks)
- 5a) Distinguish between Cilia and flagella (04 marks)
- b) What are the different functions of cilia and flagella in different organisms (05 marks)
- c) Draw a well labeled structure of an eukaryotic plant cell as observed under electron microscope (11 marks)