

P530/2

BIOLOGY

PAPER 2

MARCH/APRIL

NAMUNGOONA SALAF SECONDARY SCHOOL

END OF TERM 1 EXAMINATIONS

SENIOR FIVE

BIOLOGY

(THEORY)

2 hours 30minutes

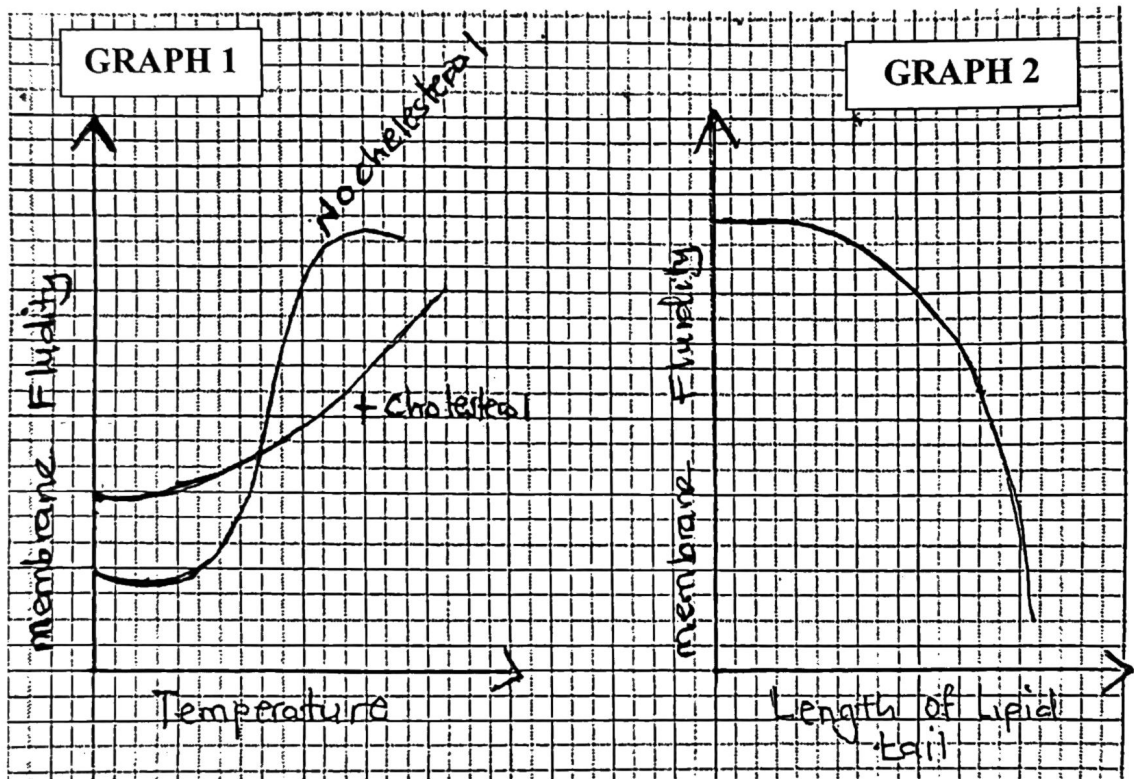
INSTRUCTIONS

- Answer question **one** in section A plus **three** other questions in section B.
- You are advised to read the questions carefully, organise your answers and present them **precisely, logically** and illustrating with well labelled diagrams wherever necessary.
- An extra question answered **shall not** be marked

QUESTION	MARK	INITIALS
1.		
2.		
3.		
4.		
5.		
6.		
TOTAL		

SECTION A (40MARKS)

1. The ability of the plasma membrane to carry out its biological processes is determined by its **fluidity**. The graphs below show how certain factors affect the fluidity of the membrane. Study them carefully and answer the questions that follow.



- a) Describe how temperature affects the fluidity of the membrane. (06marks)
- b) Account for the fluidity of the membrane in
 - i) Graph 1 (16marks)
 - ii) Graph 2. (08marks)
- c) State and explain any other factor that can affect the fluidity of the membrane (06marks)
- d) Outline the biological importance of regulating the fluidity of the membrane. (04marks)

SECTION B (60MARKS)

2. a) Briefly describe the nutritional categories of fungi. (09marks)
b) Explain why the bacteria are abundant in nature. (5marks)
c) Describe the economic importance of fungi. (06marks)

3. a) Give an account of the different modifications of the parenchyma tissue. (18marks)
b) How is the parenchyma tissue involved in support? (02marks)

4. a) Give the difference between fibrous and globular proteins. (04marks)
b) With examples explain the factors causing protein denaturation. (12marks)
c) Give four differences between the polypeptide chain and a polysaccharide chain. (04marks)

5. a) Describe the structure of the organelle responsible for powering the cellular activities. (10marks)
b) Describe the roles of the different plastids in the plant cell. (10marks)

6. a) Why are enzymes essential in biotic systems? (04marks)
b) How is enzyme activity regulated in cells? (16marks)