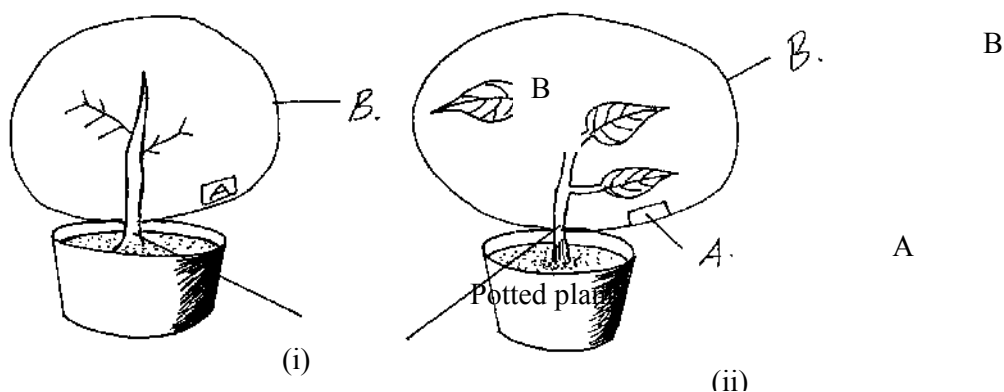


## Paper 1

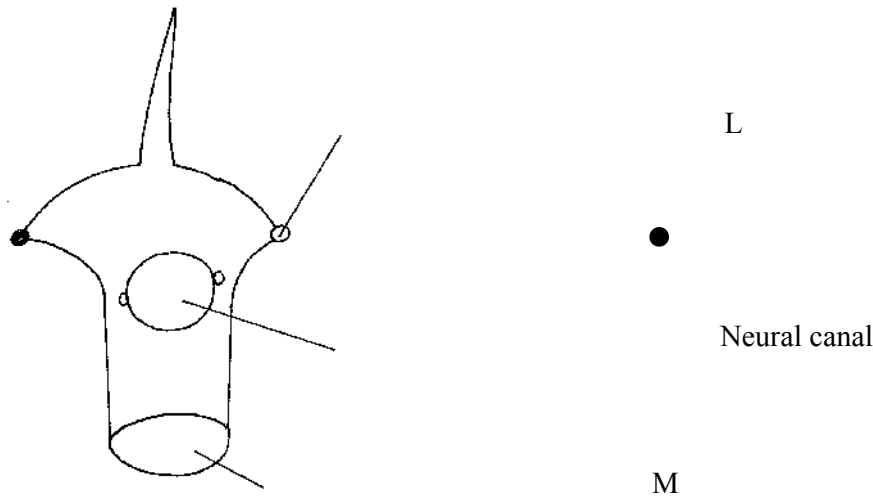
1. Give any two benefits of transport in plants. 1mk\*Kyo\*
2. Name the locomotory structure of most members of Monera kingdom. 1mk\*Kyo\*
3. (i) Define the term homologous structure. 1mk\*Kyo\*
- (ii) What is natural selection? 1mk\*Kyo\*
4. State any two scientific skills that one develops while studying biology. 1mk\*Kyo\*
5. Differentiate between Homo erectus and Homo Sapiens. 3mks\*Kyo\*
6. (i) State the function of root hairs in plants. 1mk\*Kyo\*
- (ii) Explain why the cell walls of root hairs are thin. 1mk\*Kyo\*
- (iii) List two benefits of transpiration in plants. 2mks\*Kyo\*
7. State the two functions of the cell organelle that contains chlorophyll in plants. 2mk\*Kyo\*
8. (i) List any two properties of enzymes 1mk\*Kyo\*
- (ii) Put down any two components of gastric juice. 1mk\*Kyo\*
9. The set up below is used to show that water is given off by leaves during transpiration.



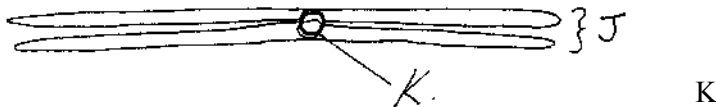
- (i) Name the materials B and A. 2mks\*Kyo\*
- (ii) Why was set-up (i) included in this experiment? 1mk\*Kyo\*
- (iii) Give a reason why the pots were covered with material B. 1mk\*Kyo\*
10. (i) Distinguish between osmosis and active transport. 2mks\*Kyo\*
- (ii) Explain what happens to a plant cell when it is placed in hypotonic solution. 1mk\*Kyo\*
11. Give the functions of the following parts of the heart.
  - (i) Pericardium. 1mk\*Kyo\*
  - (ii) Coronary vein 1mk\*Kyo\*
12. (i) Name the two main antigens that determine human blood groups. 1mk\*Kyo\*
- (ii) State the symptoms of haemolytic disease of the new-born 1mk\*Kyo\*
13. (i) Give any two functions of human skin. 1mk\*Kyo\*
- (ii) List any two adaptations of the liver to its functions. 2mks\*Kyo\*
14. (a) Define the terms
  - (i) Population. 1mk\*Kyo\*
  - (ii) Biomass 1mk\*Kyo\*
- (b) Why do herbivores have large eyes on the side of their heads? 1mk\*Kyo\*
15. (i) State the function of cervix in female mammals. 1mk\*Kyo\*
- (ii) List any two preventive measures you would take to control hepatitis B. 2mks\*Kyo\*
16. (i) Give any two views held by the theory of organic evolution on the origin and nature of life. 2mks\*Kyo\*
- (ii) Name the homeostatic functions carried by hypothalamus. 2mks\*Kyo\*
17. (i) Distinguish between tropisms and taxes. 1mk\*Kyo\*
- (ii) Name the homeostatic functions carried by hypothalamus. 2mks\*Kyo\*
18. (i) State any two supporting tissues which provide mechanical support in plants. 1mk\*Kyo\*
- (ii) Give any two functions of exoskeletons. 1mk\*Kyo\*

19. (i) The diagram below shows a vertebra. Identify the parts labeled L and M.

1mk\*Kyo\*



- (ii) Mention two tabular visceral organs where smooth muscles are found. 1mk\*Kyo\*
- (iii) Write down any two functions of paired fins in tilapia fish. 1mk\*Kyo\*
20. Differentiate continuous variations from discontinuous variations. 2mks\*Kyo\*
21. The figure below shows the structure of a chromosome. Identify the parts labeled K and J. 1mk\*Kyo\*



22. (i) State the role of decomposers in an ecosystem. 1mk\*Kyo\*
- (ii) Give any four symptoms of amoebiasis. 2mks\*Kyo\*
23. (i) Why do guard cells lie in close contact with epidermal cells? 1mk\*Kyo\*
- (ii) Give a reason why mammalian lungs are enclosed in an air-tight pleural membrane. 1mk\*Kyo\*
- 24.(i) State one adaptation of canine teeth to their functions. 1mk\*Kyo\*
- (ii) List any two functions of water in man. 2mks\*Kyo\*
25. Explain what happens in man when paying back oxygen debt. 1mk\*Kyo\*
26. a) mention the components of nervous system in mammals. 1mk\*Kyo\*
- b) Write down any two observable characteristics of members of class Dicotyledonae. 2mks\*Kyo\*
27. (a) What are the benefits of mitosis. 2mks\*Kyo\*
- b) State any two advantages of seed dormancy in the life of a plant. 2mks\*Kyo\*
28. (a) Define the term backcross as used in genetics. 1mk\*Kyo\*
- (b) (i) Name the chromosomes on which the gene that leads to hairy nose is located. 1mk\*Kyo\*
- (ii) Define disjunction type of chromosomal mutation. 1mk\*Kyo\*
29. (i) What do you understand by the maxim cell specialization? 1mk\*Kyo\*
- (ii) Give the function of body tube in a light microscope. 1mk\*Kyo\*
30. What is the role of adrenaline hormone? 1mk\*Kyo\*
31. State the two main roles of Lamarks Theory of evolution. 2mks\*Kyo\*
32. Explain briefly the necessity of excretion in animals. 2mks\*Kyo\*
33. What are the symptoms of asthma? 2mks\*Kyo\*
34. State three advantages of fossil records. 3mks\*Kyo\*