

## BIOLOGY

### FORM TWO ASSIGNMENTS

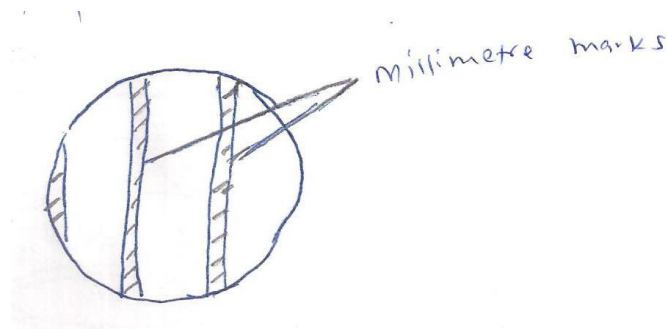
MAY 2020

1. State the **two main** branches of biology. (2 Marks)
2. a) State the functions of the pulp cavity in a mammalian tooth. (2 Marks)  
b) Name the mineral salts that hardens the tooth. (1 Mark)
3. a) Name **any two** structures for gaseous exchange in amphibians. (2 Marks)  
b) What is the effect of relaxation of diaphragm muscles during breathing in mammals? (3 Marks)
4. What are the functions of the following cell organelles? (3 Marks)  
a) Ribosomes:  
b) Mitochondria  
c) Chloroplasts
5. A student wrote the scientific name of mango plant as *Mangifera Indica*. State **two** mistakes the student made in writing the name. (2 Marks)
6. What are the functions of the following parts of the microscope? (3 Marks)  
i) Condenser  
ii) Fine adjustment knob  
iii) Diaphragm
7. Name the carbohydrate that: -  
a) Is stored in mammalian liver. (1 Mark)  
b) Found in abundance in mammalian blood. (1 Mark)  
c) Constitutes the cell wall.
8. Name **three** sites of gaseous exchange in plants. (3 Marks)
9. State the structural differences between arteries and veins. (3 Marks)
10. Give **four** differences between aerobic and anaerobic respiration. (4 Marks)

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11. State **three** homeostatic functions of the liver. (3 Marks)

12. A student estimating the cell size of onion cells observed the following on the microscope field of view.



She counted 20 cells along the diameter of the field of view. Calculate the size of one cell in micrometres. (3 Marks)

13. a) State **two** importance of the process of transpiration. (2 Marks)

b) Explain how sunken stomata reduces the rate of transpiration. (2 Marks)

14. State **three** roles of active transport in living organisms. (3 Marks)

15. What are the characteristic features of respiratory surfaces. (4 Marks)

16. State the economic importance of the following excretory products of a plant.

i) Cocaine (1 Mark)

ii) Papain (1 Mark)

iii) Colchicine (2 Marks)

17. a) Name the type of circulatory system found in class insect. (1 Mark)

b) Name the blood vessel that: -

i) Transports blood with the highest concentration of nutrients. (1 Mark)

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ii) Supplies the kidney with blood. (1 Mark)

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