NAME:……………………………………………………………… ADM N0:……………CLASS…………..

BIOLOGY

FORM 2

END OF TERM11 EXAM

YEAR 2017

TIME : 2HRS

MWAKICAN JOINT EXAMINATION

INSTRUCTIONS

* Write your name and admission number
* Answer all questions in the spaces provided.
1. State the functions of the following parts of a microscope. (1mk)
2. Condenser
3. Diaphragm (1mk)
4. Name the cell organelle that is responsible for
5. Secretion of substances (2mks)
6. Protein synthesis
7. Explain three ways in which red blood cells are adapted to their functions (3mks)
8. Name the blood vessel that transports blood from
9. Small intestine to the liver (2mks)
10. Lungs to the heart.
11. Study the diagram below and answer the questions that follow.



1. Name the parts labeled A and B (2mks)
2. State the functions of part labeled C (1mk)
3. How is the part labeled E adapted to its function (2mks)
4. Identify the structure that perform the same function as one illustrated above in (2mks)
5. Amoeba
6. Fish

6 a) Identity two ways by which blood protects the human body (2mks)

b) What prevent blood in veins from flowing backwards (1mk)

c) State the form in which oxygen is transported in blood (1mk)

7 a) State two adaptations of the roots hairs to their function (2mks)

b) Name the tissues in plants responsible for; (2mks)

i) Transport of water and mineral salts

1. Transport of carbohydrates

8. Explain why blood from a donor whose blood group is A cannot be transfused into a recipient whose blood group is B (1mk)

9. The diagram below represent epidermis of a leaf.



1. Name the parts marked E,F,and G. (3mks)
2. State two ways in which cell E is adapted to its function (2mks)

10. The diagram below was set to illustrate the role of mammalian thoracic cage in gaseous exchange.

1. What do the labels A,B,C and D correspond to in a mammal (4mks)

A

B

C

D

1. State the limitations of parts labeled B and D in the model (2mks)
2. State the observation made when the string is pulled downwards. (1mk)
3. Explain the observation in (b) above (2mks)

11. State the two types of nutrition (2mks)

12. State three functions of proteins (3mks)

13. What are the structural differences between veins and arteries (4mks)

14 Some glucose was boiled and cooled in a boiling tube. Some yeast suspension was added and a layer of oil put on top

1. Explain why
2. Glucose was boiled (1mk)
3. Glucose was cooled (1mk)
4. State the role of the layer of oil (1mk)
5. State the observations made in (2mks)
6. Yeast – glucose mixture
7. Lime water
8. Mammals have a closed as well as double circulatory system. Explain this statements. (2mks)

15. Name the type of muscle found in the heart (1mk)

16. Complete the table below (3mks)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Blood Group | A | B | AB | 0 |
| Antigens in Red Blood cell |  |  |  | None |
| Antibodies in plasma |  |  | none |  |

1. a) List two primary functions of the roots (2mks)
2. To which areas of the plants is food manufactured in green leaves translocated. (3mks)

18a) What characteristics do gills of a fish and the mouth cavity of a frog have in common that enable them to be efficient in gaseous exchange (3mks)

b) Describe the changes that occurs in the rib-cage and diagram during inspiration (3mks)

c) Why is burning charcoal stove in a poorly ventilated room likely to cause death of the inhabitants. (3mks)

19 State four factors that affect the rate of diffusion (4mks)

20. State four structural factors that affect the rate of stomatal transpiration (4mks)

21 State four forces that are involved in conduction of water in plants (4mks)

22 State five adaptations of a leaf to its photosynthetic functions (5mks)

23. State the adaptations of the ileum to its function (10mks)