**Name: ………………………………….............................…… Adm no ……..….......... Class.................**

**231/**

**BIOLOGY FORM FOUR**

**TERM ONE**

**TIME: 2 HOURS**

**INSTRUCTIONS TO CANDIDATES:**

* *Answer* ***ALL*** *the questions*
* *Answers should be written in the spaces provided*

1. Name the disease in humans that is caused by lack of vitamin C. (1mk)

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1. State **three** characteristics that cause cross- pollination to take place in flowering plants. (3mks)

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1. Name **two** structures used for gaseous exchange in plants. (2mks)

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1. When are two organisms considered to belong to the same species? (2mks)

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1. State the functions of the following cell organelles (2mks)
2. Golgi apparatus........................................................................................................................................

1. Ribosomes................................................................................................................................................
2. State **three** ways in which xylem vessels are adapted to their functions. (3mks

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1. A person who found to pass out large volumes of dilute urine frequently.
2. Name the disease the person was suffering from (1mk)

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1. Name the hormone that was deficient. (1mk)

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1. State any **three** pieces of evidence that support the theory of evolution. (3mks)

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1. Why are people with blood group O universal donors. (2mks)

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1. Which organelle would be abundant in
2. Skeletal muscle cell....................................................................................................................... (1mk)
3. Palisade cell....................................................................................................................................(1mk)
4. In an experiment, it was found that when maggots are exposed to light, they move to dark areas. Name
5. The type of response exhibited by maggots.................................................................................(1mks)
6. The advantages of the response to the maggots............................................................................(1mk)
7. State **two** ways by which the human immune deficiency (H.I.V) is transmitted other than through sexual intercourse. (2mks

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1. Suggest **three** reasons why green plants are included in a fish aquarium. (3mks)

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1. State **three** ways in which some fungi are beneficial to human. (3mks)

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1. Why is oxygen important in the process of active transport in cells. (2mks)

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1. State **two** disadvantages of metamorphosis to the life of insects. (2mks

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1. A person whose blood group is AB requires a blood transfusion. Name the blood groups of the donors. (1mk)

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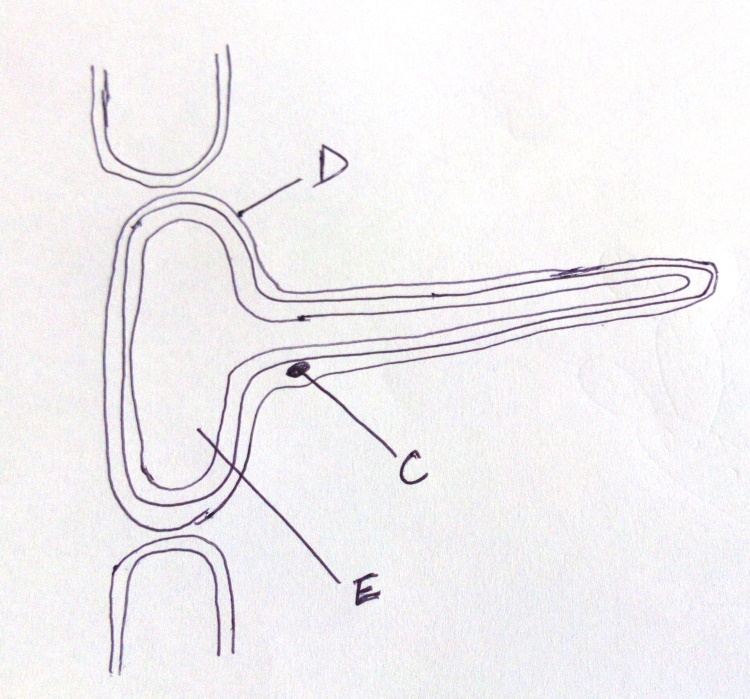
1. State **two** functions of muscles found in the alimentary canal of mammals. (2mks)

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1. Name **three** types of chrosomal mutations. (3mks)

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1. The diagram below shows a specialized plant cell.



1. Name the cell..................................................................................................................................(1mk)
2. Name the parts labeled D and E. (2mks)

D...............................................................................................................................................................E...............................................................................................................................................................

1. State the function of the part labeled C. (1mk)

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1. Distinguish between haemolysis and plasmolysis. (2mks)

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1. Explain why it is not advisable to be in poorly ventilated room with a burning charcoal stove. (3mks)

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1. What is the role of bile salts in digestion in human’s. (2mks)

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1. (a) The following is the dental formula of a certain mammal.

i0 c 0 pm 3 m 3

3 1 3 3

1. State the likely mode of feeding for the mammal....................................................................(1mk)
2. Give a reason for your answer in (a) above (1mk)

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1. State the changes that occur in arterioles in the human skin during thermoregulation (2mks)

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1. Name the site of anaerobic respiration in a cell.............................................................................(1mk)
2. (a) What is meant by convergent evolution? (1mk)

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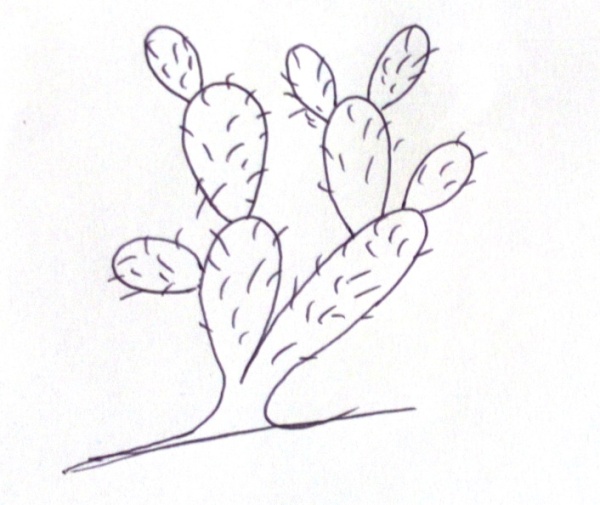
1. State **two** limitations of fossils as an evidence of evolution. (2mks)

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1. Apart from the lungs, name two gaseous exchange surfaces in a frog. (2mks)

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1. (a) The diagram below represents a certain plant.



1. What is the likely habitat for the plant. (1mk)

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1. Give **two** reasons for your answer in (a) above (2mks)

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(b) What would be the expected results from a test cross. (2mks)

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1. (a) State one economic importance of each of the following plant excretory products. (3mks)
2. Tannin................................................................................................................................................
3. Quinine..............................................................................................................................................
4. Caffeine.............................................................................................................................................

(b) Name three salivary glands in humans. (3mks)

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(c ) Name **two** dental diseases (2mks)

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1. The diagram below represents a certain organism



State the phylum and class to which it belongs (2mks)

Phylum..........................................................................................................................................................

Class..............................................................................................................................................................

1. What is meant by the flowing terms. (2mks)
2. Ecology...................................................................................................................................................

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1. Carrying capacity ....................................................................................................................................

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