NAME: _____ ADM NO: _____CLASS: _____

CANDIDATE'S SIGNATURE: _____ DATE: _____

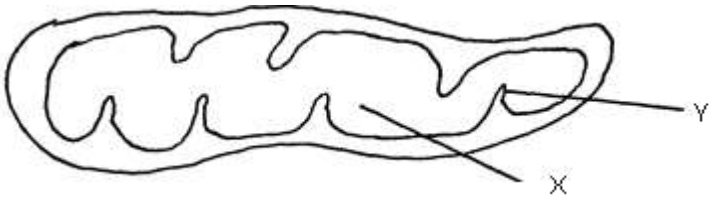
BIOLOGY
FORM ONE
END TERM 3 2024
Time: 2 HOURS

Instructions to Candidates

Write your **name**, and **ADM Number** in the spaces provided above.
Answer **All** the questions in the spaces provided
Sign and write the date of examination in the spaces provided above.
FOR EXAMINER'S USE ONLY

Questions	Maximum score	Candidates score
1 - 26	70	

The diagram below represents an organelle involved in aerobic respiration.



a) Identify the organelle (1mark)

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b) State the function of organelle named above. (1 mark)

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c) Name the parts labeled X and Y. (2marks)

i. X ……

ii. Y …….

2. Differentiate between Diffusion and Osmosis (2marks)

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3. State three factors that affect the rate of diffusion. (3marks)

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Name the branch of Biology that deals with the study of ; (2marks)

a) Plants ……..

b) Animals ……

4. Explain what would happen to the red blood cells when they are placed in hypotonic solution. (3marks)

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5. Give four differences between a light and electron microscope. (4marks)

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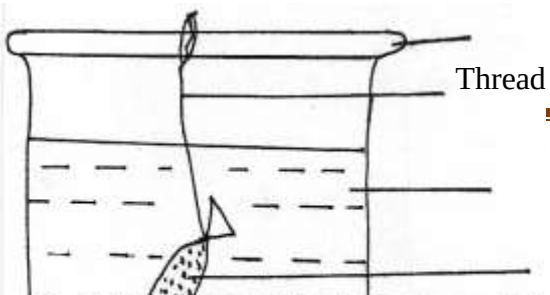
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6. Form One student set up an experiment shown below to investigate a certain physiological process. The set up was left for 30 minutes.



i. Distilled water
ii. Sucrose solution
iii. Visking Tubing

a) Name the physiological process under study. (1mark)

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b) State and explain the expected results after 30 minutes. (3marks)

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7. Name the branch of Biology that deals with the study of microscopic organisms (1 mark)

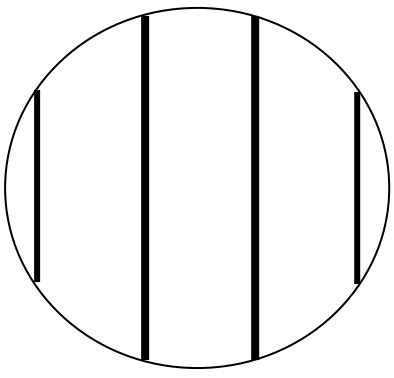
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8. Name the taxonomic unit that comes immediately after kingdom in classification (1mark)

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9. A form one student trying to estimate the size of onion cells observed the following on the microscope's field of view. As shown in the diagram below. If he counted 40 cells on the diameter of the field of view, what was the approximate size of each cell in micrometers? (1 millimeter =1000 micrometers) (3marks)



10. Motor vehicles move, use energy and produce carbon (iv) oxide and water. Similar characteristics occur in living organisms yet motor vehicles are not classified as living thing. List three characteristics of living things that do NOT occur in motor vehicles
(3marks)

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11. Distinguish between magnification and resolution power in a light microscope. (2marks)

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12. ***Canis familiaris*** is the scientific name for a dog.

Name the particular taxonomic units represented by the two words (2marks)

i. Canis……

ii. Familiaris ……

13. State the functions of the following cell organelles.

Golgi apparatus (1mark)

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Lysosomes (1 mark)

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Ribosomes (1 mark)

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Smooth endoplasmic reticulum. (1 mark)

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14. State three external features of plants (3marks)

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15. Give 5 differences between plant **cell** and animal **cell** (5marks)

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16. In a laboratory exercise a student observed a drop of pond water under a microscope, saw and drew spirogyra. If the magnification of the eye piece was X 5and that of the objective lens X100, what was the magnification of the spirogyra? (3marks)

17. Define the term species. (2 marks)

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19 Distinguish between taxonomy and taxon. (2 marks)

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20. What is the name given to the double naming system of living organisms? (1marks)

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21. Give one reasons why scientific names are given in Latin. (1 marks)

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22. A drawing of 6cm in length was made of a beetle whose actual length was 2cm. Calculate the magnification of the drawing (2marks)

23. Give the name of the kingdom to which each of the following organisms belong

a) Protozoa …….. (1 marks)

b) Mushroom…… (1 marks)

c) Garden pea…… (1 marks)

d) Human being …… (1marks)

24 Give three types of animal's tissues (3marks)

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25. Name three physiological processes that occurs in living organisms (3marks)

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26. State three properties of the cell membrane (3marks)

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