MOI HIGH SCHOOL
KABARAK

FORM 3 2026 END TERM 3 EXAMS

Paving Way For Kenya Certificate of Secondary Education Success

Name …….. Admission no…….

Candidate's Signature…… Date…….

FORM 3

BIOLOGY

PAPER 1

TIME: 2Hours

INSTRUCTIONS TO CANDIDATES:

- *This paper consists of thirty six (36)Questions*
- *Write **your name** and **ADM Number** and **class** in the spaces provided above.*
- *Answer **all** the questions*
- *All answers **must** be written in the spaces provided in this booklet.*
- ***Write** the date of examination in the space provided above.*
- *Additional pages **must not** be inserted*

EXAMINER'S USE ONLY

Question	Maximum score	Candidates score
1-36	80	

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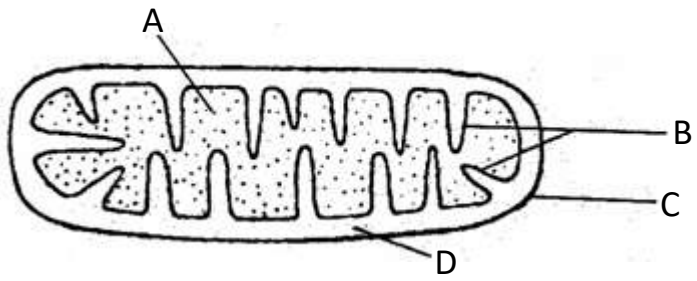
1. State **three** ways in which proteins are important to plant. **(3marks)**

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2. The diagram **below** represents a cell organelle.



(a) Identify the organelle. **(1 mark)**

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(b) Name the part labeled **B**. **(1 mark)**

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(c) State the function of part labeled **A**. **(1 mark)**

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3. Define **binominal nomenclature**. **(1mark)**

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4. Name any **two** problems that animal species overcome by their dispersion. **(2marks)**

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5. Explain why tropical forests do not have undergrowth **(2marks)**

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6. How is blood pressure generated and maintained in a vein? **(2marks)**

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7. Explain the function of catalase enzyme. **(2marks)**

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8. (a) State the important of cross-pollination to flowering plants. **(1mark)**

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(b) How is self-pollination a disadvantage to flowering plants? **(1mark)**

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9. What is the role of light energy in autotrophic nutrition in spermatophyte? **(2marks)**

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10. How is fur important to desert animal, other than in the regulation of their body temperature? **(1mark)**

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11. What are the functions of the following antibodies produced by the white blood cells. **(3marks)**

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Agglutinins……

Opsonins……

Lysins……

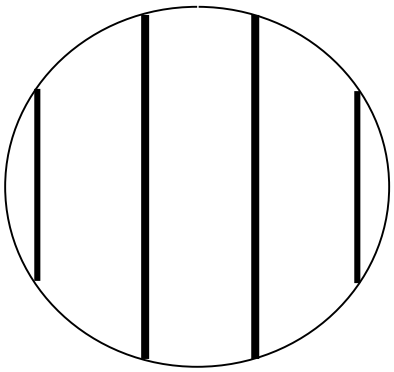
12. Explain two adaptations of cardiac muscles to their function. **(2marks)**

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13. A form one student trying to estimate the size of onion cells observed the following on the microscope's field of view.



(a) Define the term resolving power. **(1mark)**

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(b) If the student counted 20 cells across the field of view, calculate the size of one cell in micrometers. **(3marks)**

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14. What is **tidal volume** in ventilation in man? ` **(1mark)**

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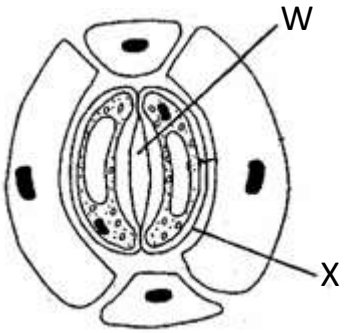
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15. Define peristalsis and state its importance in the nutrition of mammals. **(2marks)**

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16. The diagram **below** shows part of plant tissue.



Name cell labeled **X** and part labeled **W**. **(2marks)**

X…….

W……

17. Explain why the liver is part of the digestive system. **(2marks)**

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18. State the importance of cytoplasmic filaments in sieve tube elements. **(1mark)**

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19. State any two characteristics of populations. **(2marks)**

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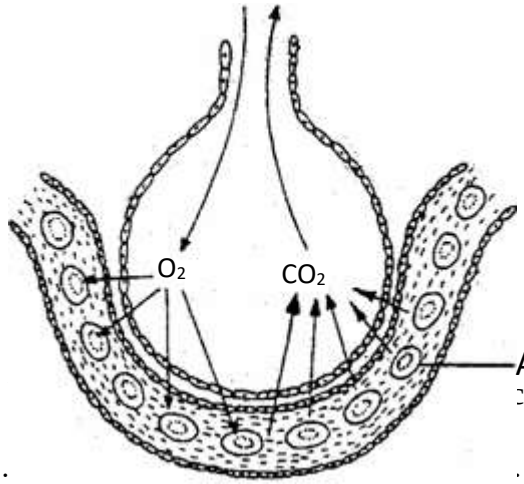
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20. Describe any **two** functions of mitosis. **(2marks)**

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21. The diagram **below** shows the exchange of gases in alveolus.



(a) State …ction. **(3marks)**

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(b) Name the cell labeled **A**. **(1mark)**

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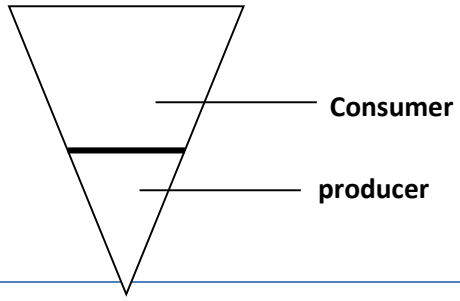
22. What are the external conditions needed, by root hair cells, for the uptake of mineral salts ions from the soil? **(2marks)**

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23. The diagram below represents a pyramid of biomass derived from a certain ecosystem



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(a) Suggest the type of ecosystem from which the pyramid was derived **(1mark)**

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(b)State the significance of short food chains in an ecosystem **(1mark)**

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24. Suggest two reasons for the appearance of glucose in the urine of a man. **(2marks)**

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25. (a) State the source Carbon (IV) oxide in aquatic ecosystems. **(2marks)**

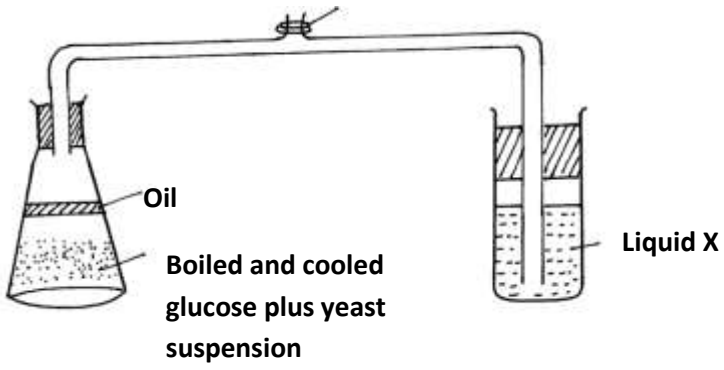
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(b) State the importance of Carbon (IV) oxide to aquatic ecosystems. **(2marks)**

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26. The set up below shows apparatus to demonstrate a certain biological process



(a) What biological process was being investigated in the experiment **(1mark)**

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(b)Write down a word equation that represents the reaction above **(1mark)**

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(c) In the above set up, why was it important to boil and cool glucose before adding yeast? **(1mark)**

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27. What is the homeostatic importance of cuticles of leaves? **(2marks)**

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28. Outline two functions of parenchyma cells in herbaceous plants. **(2 marks)**

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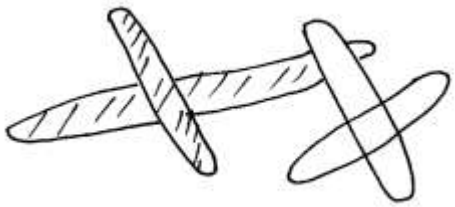
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29. State adaptations of respiratory surfaces. **(2marks)**

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30. The diagrams below show a pair of homologous chromosomes. Study them and answer the questions that follow.



(i)State the phenomenon shown above **(1mark)**

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(ii) What is the genetic significance of the phenomenon above? **(2marks)**

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31. Account for the thick wall and narrow lumen of an artery. **(2marks)**

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32. How do pathogens that enter the body through the respiratory tract in man prevented from causing diseases? **(1mark)**

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33. Where does the detoxification of ammonia take place in mammals? **(1mark)**

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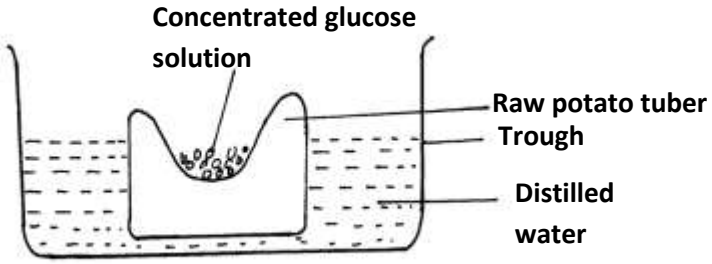
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34. Name the processes that take place in the grana of chloroplast. **(2marks)**

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35. The experiment illustrated below was set up to investigate a certain physiological process using a raw tuber



(a) Suggest a possible physiological process that was being investigated **(1mark)**

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(b) Explain the results obtained in the above experiment after a few hours **(2marks)**

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(c) State the observations that would have been made if the experiment was repeated using boiled potato **(2marks)**

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36. Name the causative organism of the following diseases

(i) Malaria **(1mark)**

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(ii) Bilharzia **(1mark)**

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