NAME:……..…… **INDEX NO:**……..…..

SCHOOL:…… ……

CANDIDATE'S SIGNATURE.....

DATE:.....

231/1
BIOLOGY
PAPER 1
THEORY
JULY / AUGUST 2008
2 HOURS

BOMET DISTRICT MOCK EXAMINATION
Kenya Certificate Of Secondary Education 2008

231 / 1
BIOLOGY
PAPER 1

INSTRUCTIONS TO CANDIDATES

- *Answer **ALL** questions in this paper in the spaces provided.*

For Examiner's Use Only

Questions	Maximum Score	Candidate's Score
1-30	80	

This paper consists of 8 printed pages. Candidates should check the question paper to ensure that all pages are printed as indicated and no questions are missing.

1. (a) **Name three** characteristics of living organisms (3mks)

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(b) Apart from Plantae and Animalia, **name three** other kingdoms. (3mks)

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2. **Give two** characteristics that distinguish scientific names from common names.

(2mks)

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3. **State two** limitations of using a microscope to estimate the size of cells (2mks)

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4. (a) **What** is cell specialization (1mk)

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(b) **Name three** types of tissues found in animals (3mks)

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5. **Distinguish** between osmosis and active transport. (2mks)

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6. **Describe** what happens during the dark stage of photosynthesis (3mks)

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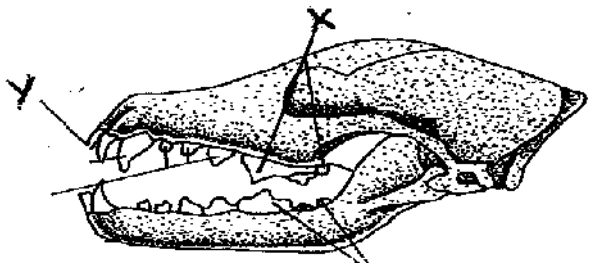
7. The diagram below shows dentition of a dog



(a) (i) Name the part labeled **X** (1mk)

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(ii) Give a reason for your answer in a (i) above (1mk)

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(b) **State** how part labeled Y is adapted to its function. (1mk)

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8. **State** the condition to which the body of a mammal use proteins as a source of energy. (1mk)

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9. **State two** functions of chloride ions in the human body. (2mks)

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10. **Explain** how sunken stomata lowers the rate of transpiration (2mks)

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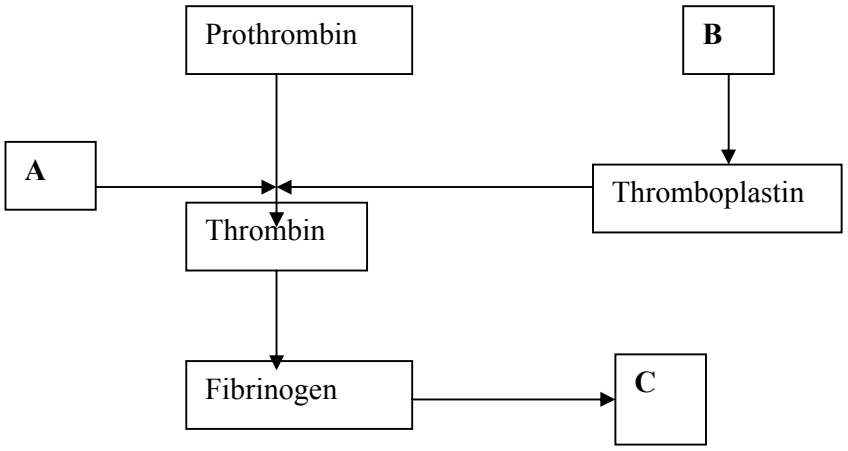
11. The chart below is a summary of the blood clotting mechanism in man.



Name

(i) the blood cell represented by **B** (1mk)

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(ii) the metal ion represented by **A** (1mk)

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(iii) the end-product of the mechanism represented by **C** (1mk)

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12. How does the heart increase blood flow to some parts of the body during strenuous exercise (2mks)

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13. **Name two** sites where gaseous exchange takes place in higher plants (2mks)

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14. **State four** adaptations of respiratory surfaces (4mks)

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15. **Give** the formula for calculating the respiratory quotient (RQ). (1mk)

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

(a) Caffeine……

(2mks)

(b) Quinine…… .

(1mk)

17. **Explain** why a baby loses more heat per unit weight than an adult when exposed to the same environmental conditions. (2mks)

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18. During a field trip, plant that had flowers drew the attention of a student

(a) **Name** the division of the plant (1mk)

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(b) **Suggest three** possible characteristics one would notice to conclude that it was pollinated by insects. (3mks)

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19. **State two** roles of green plants in a fish aquarium other than providing food for the fish (2mks)

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20. Bivalent, synapsis, crossing over are terminologies used in cell division.

(a) Name the stage of meiosis in which the above process occur. (1mk)

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(b) **Distinguish** between synapsis and crossing over. (2mks)

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21. **(a) State** the role of the following structures.

(i) Placenta. (2mks)

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(ii) Amniotic fluid (1mk)

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(iii) Umbilical cord (1mk)

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22. **Name** the parts of the flower that are responsible for production of gametes (2mks)

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23. During germination and early growth, the dry weight of endosperm decreases while that of the embryo increases. **Explain** (2mks)

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24. **Give two** reasons why cross breeding is better than inbreeding (2mks)

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25. **Identify** each of the following aspects of evolution described below.

(i) Structures that have become functionless in the course of evolution. (1mk)

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(ii) A gradual continuous and irreversible change in organisms over long period of time resulting in the formation of new species from pre-existing ones. (1mk)

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(iii) The evolutionary phenomenon in which organs from common ancestral forms became adapted to different ecological niche. (1mk)

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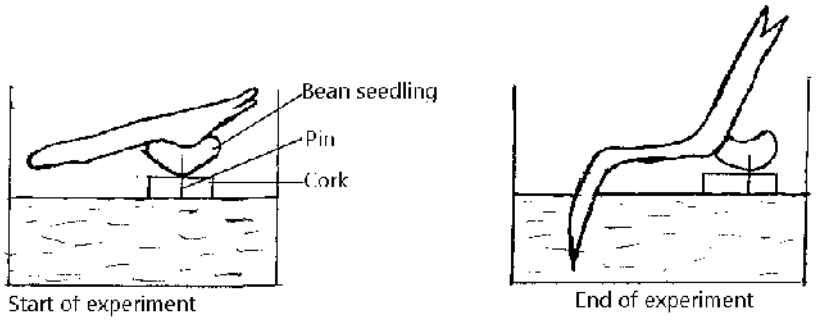
26. An experiment was carried out to investigate a growth response in a bean seedling as illustrated in the diagrams below.



(a) **What** type of response was being investigated? (1mk)

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(b) **Explain** the response exhibited by the root (3mks)

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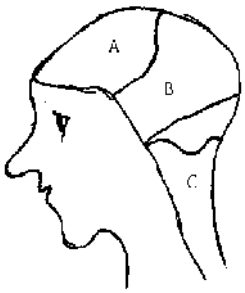
27. The diagram below shows surface of a human brain.



(a) **Name** the parts labelled A and C (2mks)

A:

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C:

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(b) **State** what would happen if the part labeled B was damaged (1mk)

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28. **How** are xylem vessels adapted for support (1mk)

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29. **State three** characteristics of skeletal muscles (3mks)

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30. **Name three** types of harmful drugs used in society (3mks)

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