

FORM 4 TERM 1 OPENER

BIOLOGY

NAME..... ADM NO.....

CLASS..... SIGN.....

INDEX NO..... DATE.....

BIOLOGY PAPER 1

TIME: 2HOURS

INSTRUCTIONS.

Answer all the questions in the spaces provided.

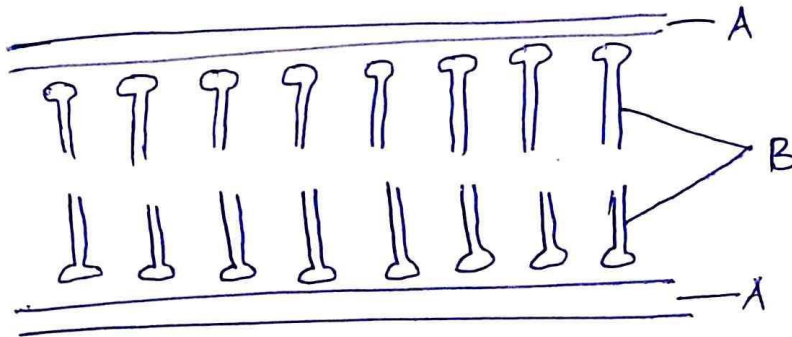
1. Name the element obtained from insects by insectivorous plant. (1mk)

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2. State two function of centrioles in a cell. (2mks)

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3. Study the diagram below and answer the questions that follow.



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a) Identify the structure. (1mk)

b) Name the part labeled A and B. (2mks)

A

B

4. State the function of each of the following part of the light microscope. (2mks)

Mirror

Fine adjustment knob

5. Water logging can cause the death of some plants. Explain. (2mks)

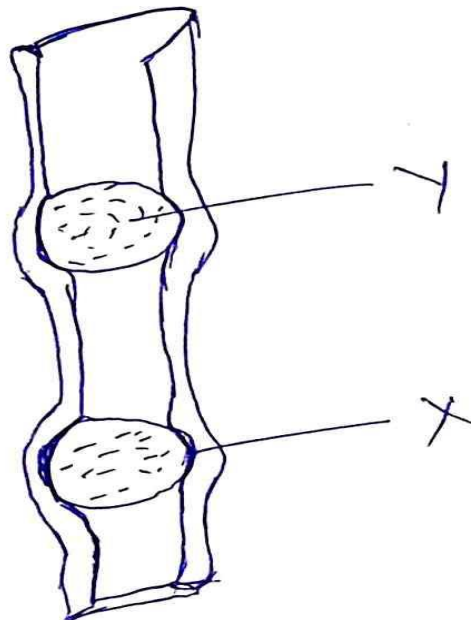
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6. The diagram below shows a process that takes place in the gullet swallowing of food.



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a) Name the process. (1mk)

b) Name : (2mks)

i. The muscle labeled X

ii. The part labeled Y

7. The equation below shows a process that takes place in mammals.



a) Identify the process. (1mk)

b) State the significance of this process to a mammal. (1mk)

8. State the function of co-factors in cell metabolism. (1mk)

9. Name two gaseous exchange structures in higher plants. (2mks)

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10. Give three structural differences between wind and insect pollinated flowers. (3mks)

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b. State the significance of cross pollination. (1mk)

11. Explain how much of the following factors would lead to population increase of species in an ecosystem. (3mks)

a) Competition

b) Predation

c) Parasitism

12. Name three support tissues in higher plants. (3mks)

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13. Why are plants said to be primary producers in a natural habitat. (1mk)

b. Where does the digestion of fats in a mammal start. (1mk)

14. Name two structures in a flower that wither off after fertilization. (2mks)

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ii. Apart from withering, name two other changes that occur in flowers after fertilization. (2mks)

15. The equation below shows a chemical reaction that takes place in plants.

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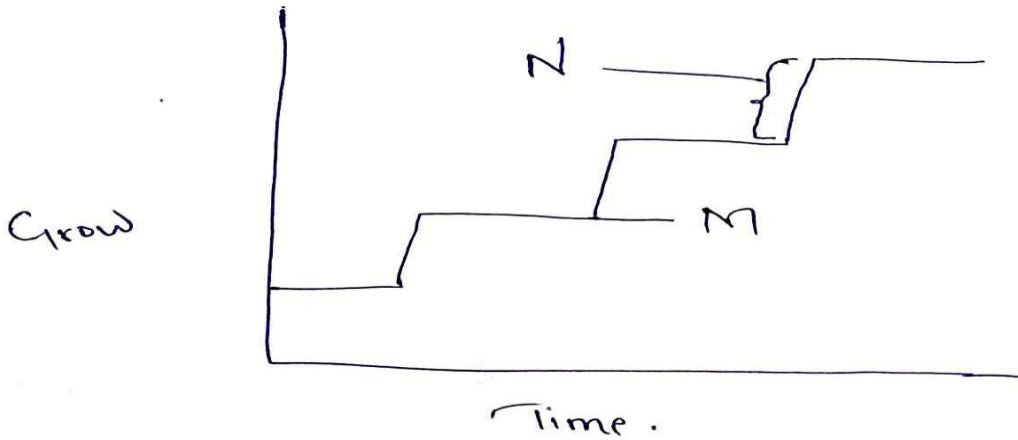
a) Identify A

b) Other than reactants, state two conditions necessary for this reaction. (2mks)

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c) Name the process represented by the equation. (1mk)

16. The diagram below show the growth pattern in a grasshopper.



i. Briefly explain the type of the shape of the graph. (2mks)

ii. Name the regions labeled M and N. (1mk)

17. Define eutrophication. (3mks)

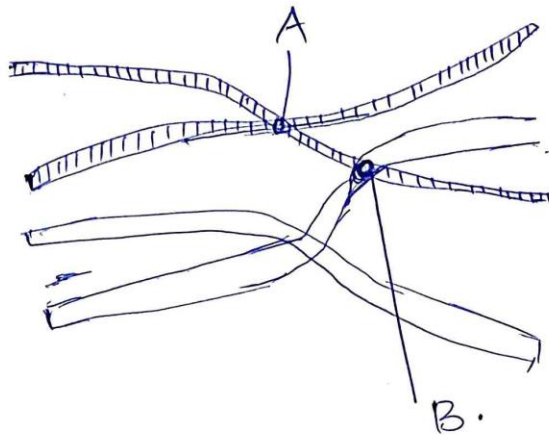
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18. Define counter current flow system as used in gaseous exchange in a fish. (2mks)

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19. The diagram below shows a phenomenon which occurs during cell division.



i. Name the parts labeled A and B. (2mks)

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ii. State the biological importance of the part labeled B. (1mk)

iii. Identify the type of cell division in which this phenomenon occurs. (1mk)

iv. Name the organs in human being in which the phenomenon occurs. (1mk)

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20. Name metabolic wastes of birds.

(2mks)

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21. Name the organism that causes malaria in human beings.

(1mk)

22. Giving examples distinguish between continuous and discontinuous variation.

(4mks)

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23. State three differences between deoxyribonucleia acid (DNA) and Ribonucleic acid (RNA)

(3mks)

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24. Identify two causes of variation.

(2mks)

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25. State three causes of variation. (2mks)

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26. What is parthenocarpy? (1mk)

27. Explain four roles of auxin hormone in growth and development of plants. (2mks)

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28. State three differences between diffusion and active transport. (3mks)

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29. State three structural modifications of nephrones in dessert mammals. (3mks)

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30. State two adaptation of leaves in arid and semi-arid areas.

(2mks)

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