NAME………………………………………………………………………

INDEX NO………………………………. CLASS………………………. DATE……………………..

GATITU DAY MIXED SECONDARY SCHOOL

BIOLOGY PP1 THEORY

TRIAL 2 EXAM

TIME: 2HRS

**Instructions**:

Answer all the questions in the spaces provided

1. The scientific name of a lion is panther Leo,

a) Re-write the name using the binomial system of nomenclature, (1mk)

b) What do the following represent? (2mks)

i. Panthera

ii. Leo

2. a) Distinguish between diffusion and osmosis (1mk)

b) State two factors that affect the rate of diffusion. (2mks)

3. a) Some plants curl their leaves when hot. What is the significance of this curling? (2mks)

b) How do sunken stomata reduce the rate of transpiration? (1mk)

4. Why do leaves have? (1mk)

a) i) A thin lamina

ii) A broad lamina?

b) Explain why aquatic leaves have numerous stomata on the upper epidermis. (1mk)

5. a) A tadpole has a much longer alimentary canal than a frog. Explain. (2mks)

b) state **two**  factors that adapt the small intestine to its functions. (2mks)

6. a) Define the term hormone. (1mk)

b) Give two differences between a hormone and an enzyme. (2mks)

7. A chemical substance has the structural formula shown below. (1mk)

a) Name the group labeled

i) X

ii) Y

b) Which of the group makes the chemical?

i. Acidic

ii. Basic

c ) If the compound was polymerized, name the product formed. (1mk)

8. a) State two structural differences between artery and veins. (2mks)

b) State one functional difference between xylem and phloem. (1mk)

9. The diagram below represents a transverse section of a water Lilly leaf. Use it to answer the questions that follow.

a) State how the leaf adapts the plants to its habitat. (2mks)

b) Name part labeled P and Q. (1mk)

p

Q

c) Name a layer found above Y in a xerophytes leave. (1mk)

10. Name a structure used for gaseous exchange in, (2mks)

i. Mammals

ii Plants

11. The diagram below represents a kidney nephron

a) State how part labeled X is affected by

i. Low blood pressure (1mk)

ii. High blood pressure (1mk)

b) State how part labeled Y is adapted to its function. (2mks)

12. Name a chemical waste substance produced by coca plant. (1mk)

13. a) Give two reasons why decomposers are never included in a food chain (2mks)

b) Give two examples of decomposers. (2mks)

14. a) What name is given to the sex-linked genes found in the Y –chromosome (1mk)

b) Name two genes located in the Y –chromosome (2mks)

15. State the function of each of the following (2mks)

a) Testes

b) Ovaries

16. In which two ways can an organism be fossilized? (2mks)

17. Use the diagram below to answer the questions that follow (1mk)

a. Identify structure F (1mk)

b.Name the type of tropism shown above (1mk)

C.What is the significance of this type of tropism to a plant (1mk)

18. Use the diagram below to answer the questions the follows

a. To what class does the flower belong? Explain? (2mks)

b.Name the agent of pollination (1mk)

C.Explain why the flower has a feathery stigma (1mk)

19. Expand the following abbreviations

i.DNA (1mk)

ii.NADP (1mk)

iii.RNA (1mk)

20. Name the structure used for food storage in the following seeds

i.dicotyledonous (1mk)

ii.monocotyledonous (1mk)

21.What is the importance of the following in germination

i.Water (1mk)

ii.Oxygen (1mk)

22. What method can be used to determine the genotype of a plant showing the dominant trait? (1mk)

23.What is meant by the following terms (3mks)

i.Hybrid

ii.Polyploidy

iii.Hybrid vigour

24. Use the diagram below to answer the questions that follow

a. Identify the neuron (1mk)

b.Name cell labeled x (1mk)

25. State the functions of the following brain regions (2mks)

i.Cerebellum

ii.Medulla oblongata

26. Name the structure that regulates the amount of light entering the eyes (1mk)

27. Explain why excessive intake of antibiotic may lead to haemophilia (1mk)

28. Which part of the microscope? (2mks)

I.Concentrate light onto the microscope

Ii.Support the slide containing the specimen

29. Name a hormone that inhibits germination in seeds (1mk)

30. Give two differences between skeletal and smooth muscle (2mks)

31 i. State the function of cervix in female mammals (1mk)

ii.List any two preventive measures you would take to control hepatitis B (2mks)