

MANGU HIGH SCHOOL

NameAdm. No.

Class.....

Candidates Sign:

231/1

BIOLOGY

Paper 1

MOCK EXAMS – 2022

Time: 2 Hours



Kenya Certificate of Secondary Education (K.C.S.E)

Instructions to Candidates

- Write your name and index number in the spaces provided above.
- Answer all the questions in the spaces provided.

FOR EXAMINERS USE ONLY

Question	Maximum Score	Candidate's Score
1 - 31	80	

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

Turn Over

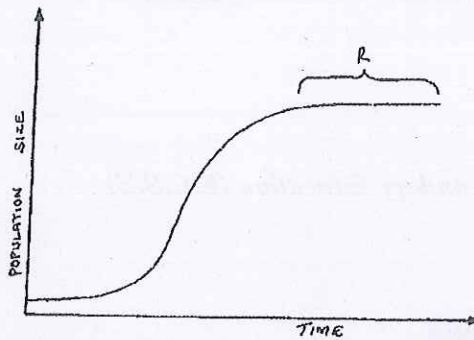
1. Why is the pancreas considered a dual gland? (2 mks)

.....
.....
.....

2. State the function of cristae in mitochondria. (1 mk)

.....
.....

3. The sketch graph below shows population growth rate of a certain organism



List down four factors that could have caused limited growth at R. (4 mks)

.....
.....
.....
.....
.....

4. Suggest why green plants are included in the fish aquarium. (3 mks)

.....
.....
.....
.....

5. State two observable features that can be used to identify the members of the phylum chordata. (2 mks)

.....
.....
.....

6. Name causative agent for each of the following diseases.

a) Typhoid

(1 mk)

.....

b) Malaria

(1 mk)

.....

7. State **three** functions of blood other than transport.

(3 mks)

.....

.....

.....

.....

8. Give **two** reasons why lumbar vertebrae have long and broad transverse processes.(2 mks)

.....

.....

.....

9. Give three differences between endocrine system and nervous system.

(3 mks)

Endocrine system	Nervous system

10. State **three** ways in which seed dormancy benefits a plant.

(3 mks)

.....

.....

.....

.....

11. Give an example of a sex linked trait in humans on;

Y chromosome

(1 mk)

.....

X chromosome

(1 mk)

.....

12. Name **three** gaseous exchange structures in higher plants. (3 mks)

.....
.....
.....
.....

13. Name **three** features that distinguish man from apes even though they are closely related in evolutionary Tree. (3 mks)

.....
.....
.....
.....

14. Give a reason for the following;

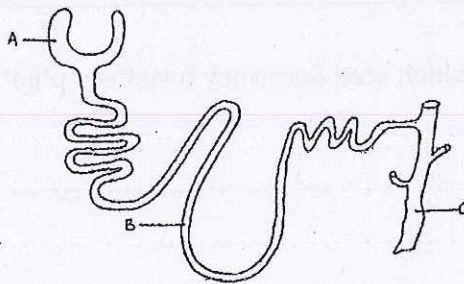
a) A mature plant cell does not lose its shape even after loosing water. (1 mk)

.....
.....

b) Xylem vessels do not collapse when they do not contain water. (1 mk)

.....
.....

15. The diagram below represents a nephron of a mammal



a) Name the parts marked A and B (2 mks)

A

B

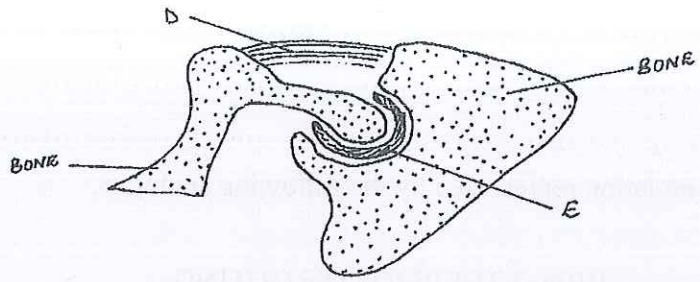
b) Name a major substance in glomerular filtrate whose concentration remains the same between A and C. (1 mk)

.....

16. What is the function of eustachian tube that link the middle ear with the throat. (1 mk)

.....
.....

17. Below is a diagram of a joint in a mammalian skeleton



(a) Name the type of joint represented by the diagram above. (1 mk)

.....

(b) Identify the part labeled D and E (2 mks)

D

E

18. State how the alveolus of the lungs of a mammal is adapted to its function. (3 mks)

.....
.....
.....
.....

19. State the function of cerebrospinal fluid. (2 mks)

.....
.....
.....

20. Explain how water from the soil reaches the xylem vessels of the root. (4 mks)

.....
.....
.....
.....

21. State the functions of the following parts of the human ear. (2mks)

(a) Ear ossicles

.....

(b) Cocclea

22. Name three types of muscles found in human body. (3 mks)

.....
.....
.....
.....

23. Write the type of gene mutation represented by the following analogue.

(i) Intended message: BRING THERMOS ON OUTING
Actual message: BRING MOTHERS ON OUTING

Type (1 mk)

(ii) Intended message PLEASE SAY WHERE YOU ARE
Actual message PLEASE STAY WHERE YOU RAE

Type (1 mk)

24. With an aid of diagram distinguish between marginal and parietal placentation in fruits. (2 mks)

Marginal	Parietal

25. Name **two** raw materials for the process of photosynthesis (2 mks)

.....
.....
.....

26. Giving reasons, identify the mode of feeding of the animal whose dental formula is given below.

$$i \frac{0}{2} \quad c \frac{0}{0} \quad Pm \frac{3}{3} \quad M \frac{2}{2}$$

Mode of feeding (1 mk)

.....

Reasons (2 mks)

.....
.....
.....

27. Name **three** characteristics of wind pollinated flowers. (3 mks)

.....
.....
.....
.....

28. Give **two** reasons why accumulation of lactic acid during vigorous exercise leads to an increase in heart beat. (2 mks)

.....
.....
.....

29. Explain why sexual reproduction is important in organisms. (2 mks)

.....
.....
.....

30. a) Name **two** sources of oil as a water pollutant. (2 mks)

.....
.....
.....

b) For each of the sources named in (a) above, state **one** way of controlling it.(2 mks)

.....
.....
.....

31. Name **three** secondary sexual characteristics that start occurring in human males on the on set of testosterone hormone production. (3 mks)

.....
.....
.....
.....