THE UNITED REPUBLIC OF TANZANIA

PRESIDENT'S OFFICE

REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT

NJOMBE REGION

SOUTHERN ZONE FORM TWO JOINT EXAMINATION

033 BIOLOGY

TIME 2:30 Hours
2024

INSTRUCTIONS

1. This paper consists of sections A, B and C with a total of **ten (10)** questions
2. Answer all questions
3. Sections A and C carry **fifteen (15)** marks each and section B carries **seventy (70)** marks
4. All writings must be in blue or black ink except drawing which must be in **pencil**
5. Cellular phones and any other unauthorized material are **not allowed** in the examination
6. Write your examination number at the top right corner of **every page**

QUESTION NUMBER	SCORE	EXAMINERS INITIAL
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

TOTAL		

SECTION A (15 MARKS)

1. For each of the following items (i)-(x), choose the correct answer from the given alternatives and write its letter in the box provided.

   i. Which of the following is not a nutritional disorder in human being
      A. Obesity
      B. Anorexia nervosa
      C. Bulimia nervosa
      D. Malaria

   ii. Which of the following is the proper method for disposing clinical wastes
      A. Landfill
      B. Incineration
      C. Pit latrine
      D. Recycling

   iii. Which process allows absorption of amino acids and glucose in the small intestine?
      A. Diffusion
      B. Mass flow
      C. Osmosis
      D. Regulation

   iv. Suppose you are provided with a small section of cell from a certain organism, which equipment will you use to observe the cell?
      A. Hand lens
      B. Microscope
      C. Watch glass
      D. Beaker

   v. Why a faint victim should be laid down with the head lower than the feet when rendering first aid?
      A. Because the body needs nutrients
      B. Because the brain needs oxygenated blood
      C. Because the brain needs deoxygenated blood
      D. Because the lungs needs oxygenated blood

   vi. Which of the following is not transported by plasma?
      A. Hormones
      B. Respiratory gases
      C. Nutrients
      D. Faeces

   vii. Which of the following is the end product when sun flower seeds are completely digested?
      A. Glucose and fructose
      B. Amino acids and fructose
      C. Fatty acid and glycerol
      D. Glucose and glycerol

   viii. Interaction between human being and plasmodium is known as
      A. Commensalism
      B. Mutualism
      C. Neutralism
      D. Parasitism

   ix. The organ responsible for gaseous exchange in tilapia is
      A. Gills
      C. Cell membrane

B. Leaf D. Book lung

x. What type of immunity would be acquired if all villagers of Mtakuja are vaccinated against hepatitis B?

A. Artificial active immunity C. Natural active immunity

B. Natural passive immunity D. Artificial passive immunity

ITEM	i	ii	iii	Iv	v	Vi	vii	viii	ix	x
RESPONSE										

2. Match the items **LIST A** with the corresponding item in **LIST B** by writing the letter of the correct response in the space provided.

LIST A	**LIST B**
i. Apparatus used for keeping live aquatic animals in the laboratory ii. Is used for catching small flying insects iii. Is used for catching small aquatic organisms iv. Is used to estimate number of organisms in the area v. Is used for picking up small organisms without hurting them	A. Quadrat B. Pooter C. Cage D. Net E. Scoop net F. Beaker G. Aquaria H. Specimen bottle I. Winchester bottle J. Sweep net

ITEM	I	Ii	Iii	Iv	v
RESPONSE					

SECTION B (70 MARKS)

3. a) State five points which you can use to educate the community about the preventive and control measures of a disease caused by schistosoma sp.

i. ……
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ii. ……
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iii. ……
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iv. ……
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v. ……
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b) If you are given a chance to advise your fellow students about things they should do during puberty, what will be your five points?

i. ……
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ii. ……
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iii. ……
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iv. ……
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v. ……
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4. a) Form one students in a certain school were interested to know why it is necessary to study biology. Assume you are a biology teacher explain to students the importance of studying biology by giving five points.

i. ……
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ii. ……
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iii. ……
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iv. ……
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v. ……
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b) One among the characteristics of living things is respiration

i. What is respiration?

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ii. Describe three factors affecting the rate of respiration

i. ……
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ii. ……
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iii. ……
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iii. How is anaerobic respiration applied in daily life? Give two points

i. ……

ii. ……

5. a) Explain each of the following,

i. Liver damage leads to impaired digestion of fats

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ii. If you stand on your head it is still possible to swallow food

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iii. Veins have valves

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b) Suppose you are among the students who have been selected to conduct scientific study on why there are always low yields in your school maize farm. Suggest seven steps you will follow to accomplish this task.

i. ……

ii. ……

iii. ……

iv. ……

v. ……

vi. ……

vii. ……

6. a) Give the meaning of the following terms as used in ecosystem

i. Biotic component

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ii. Abiotic component

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iii. Food chain

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iv. Food web

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b) Construct a food web that will accommodate the following organisms;

Grasses, man, sheep, goat, shrubs.

7. a) What do you understand by the term biology laboratory?

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   b) Most of laboratories are built up to the qualities that satisfy scientific experiments. Explain the importance of the following qualities in biology laboratory.

   i. Adequate space

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   ii. Proper lighting

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   iii. Good ventilation system

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      ……

   iv. A source of water

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      ……

8. a) Catherine observed a mass of greenish plant like organisms growing on the wall of their house during the rainy season. As biologist ;

   i. Suggest the name of organisms which Catherine observed

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   ii. In which division do the organisms belong?

      ……

   iii. State three merits of the organisms observed by Catherine

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      ……
      ……
      ……

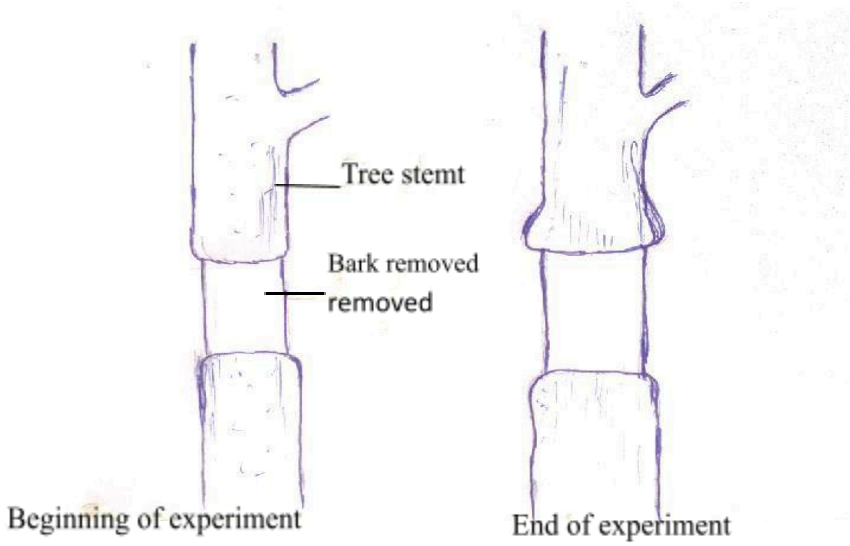
b) Give the meaning of a type of classification that can be used to classify bats and human beings in the same group.

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c) Explain why viruses are considered as both living and non-living things.

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9. a) Study the figure below and answer questions that follows



i. What is the aim of the experiment?
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ii. Does the setup shown in the experiment affect the flow of water up the up the plant? Give reasons for your answer
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iii. What will happen to the tree that has had a complete ring of the bark removed? Give reasons for your answer.
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b) What precautions will you take when handling substance with the following warning sign?

i. Flammable

……..…

……..…

ii. Toxic

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iii. Corrosive

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……...…

SECTION C (15 MARKS)

10. Biologist in the world believe that knowledge we get from biology can help to combat COVID-19.As form two student give at least six (6) ways of combating COVID-19…

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