Student's Assessment Number .....

THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATIONS COUNCIL OF TANZANIA
FORM TWO NATIONAL ASSESSMENT

033 **BIOLOGY**

Time 2:30 Hours **Year: 2024**

Instructions

1. This paper consists of sections A, B and C with a total of **ten (10)** questions.
2. Answer **all** questions in the spaces provided.
3. Section A carries **fifteen (15)** marks, section B **seventy (70)** marks and section C carries **fifteen (15)** marks.
4. All writing must be in **blue** or **black** ink, **except** drawing which must be in pencil.
5. Communication devices and any unauthorised materials are **not** allowed in the assessment room.
6. Write your **Assessment Number** at the top right corner of every page.

FOR ASSESSOR'S USE ONLY		
QUESTION NUMBER	**SCORE**	**ASSESSOR'S INITIALS**
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
TOTAL		
CHECKER'S INITIALS		

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SECTION A (15 Marks)

Answer **all** questions in this section.

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

(i) During experiment a student observed an organism's cell that had nucleus not bounded by membrane. From which organism was the cell taken?

A Human being
B A maize
C Bacterium
D Virus

(ii) Study the following food chain and answer the question that follow:

Shrubs ⟶ Wildebeests ⟶ Hyena ⟶ Fungi

Which trophic level is occupied by the wildebeests?

A Primary consumer
B Secondary consumer
C Producer
D Tertiary consumer

(iii) Which organisms belong to the Division Bryophyta?

A Paramecium and euglena
B Ferns and liverworts
C Liverworts and amoeba
D Liverworts and mosses

(iv) In which specific part of the mammalian respiratory system does trapping of dust and microorganisms take place?

A Alveolus
B Epiglottis
C Nose
D Diaphragm

(v) Which part of the microscope should one use to regulate the amount of light passing from the mirror to the condenser?

A Stage clip
B Diaphragm
C Hinge screw
D Ocular tube

(vi) Which blood vessel transports deoxygenated blood from the heart to the lungs?

A Pulmonary vein
B Pulmonary artery
C Mesenteric artery
D Coronary vein

(vii) How can HIV/AIDS be prevented from spreading?

A By sharing skin piercing instruments
B By touching people's blood with bare hand
C By transfusion using unscreened blood
D By abstaining from sexual intercourse

(viii) Why is it dangerous to put kerosene in the places where children play?

A It can cause death when taken into the body
B It can cause injury when poured on the skin
C It emits harmful radiations which can cause damage
D It contains microorganisms which cause diseases

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(ix) Your friend complains of passing out hard and dry faeces. Which practice would you advise him to treat the problem?

A Limiting the amount of fruits in the diet
B Ignoring the urge to go for a long call
C Taking adequate amount of fibres in the diet
D Reducing the intake of vegetables and fruits

(x) Study the following set of diseases then answer the question that follow:

(i) Malaria and bilharzia
(ii) Syphilis and gonorrhoea
(iii) Tuberculosis and plague
(iv) Hepatitis B and AIDS

Which diseases are transmitted through unprotected sexual intercourse?

A (iii) and (iv)
B (i) and (ii)
C (i) and (iv)
D (ii) and (iv)

2. Match the uses of First Aid components in **List A** with their corresponding components in **List B** by writing the letter of the correct response below the item number in a table provided.

List A		List B	
(i)	Reducing muscle pain.	A	Sterile gloves
(ii)	Cleaning and drying wounds.	B	Adhesive bandage
(iii)	Covering small wounds.	C	Cotton wool
(iv)	Securing bandages.	D	Liniment
(v)	Treating burns and scalds.	E	Petroleum jelly
		F	Pain killers
		G	Scissors
		H	Safety pins

Answer

List A	(i)	(ii)	(iii)	(iv)	(v)
List B					

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SECTION B (70 Marks)

Answer **all** questions in this section.

3. (a) Outline seven steps for carrying out scientific investigation.

(i) .....

(ii) .....

(iii) .....

(iv) .....

(v) .....

(vi) .....

(vii) .....

(b) State the sense organs used in making the following observations.

(i) Colour change during food test experiment.

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(ii) Identifying the smell of a flower

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(iii) Identifying the texture of sand.

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4. Briefly explain five methods of preventing the spread of malaria.

(i) .....

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(ii) .....

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(iii) .....

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(iv) .....

(v) .....

5. (a) What are the four major requirements for Photosynthesis to take place?

(i) .....

(ii) .....

(iii) .....

(iv) .....

(b) In three points, support the statement that "Photosynthesis is an important process to the living organisms."

(i) .....

(ii) .....

(iii) .....

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6. How does gaseous exchange occur across the alveolus? Briefly explain by giving five points.

(i) .....

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(ii) .....

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(iii) .....

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(iv) .....

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(x) .....

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(a) Draw the external structure of a plant leaf and label its four parts.

(b) State one function of any two parts which you have labelled in 7 (a).

(i) .....

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(a) Name the parts labelled A, B, C and D.

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(b) What are the functions of the parts labelled A, B and C?

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SECTION C (15 Marks)
Answer question **ten (10)**.

10. Why is blood circulation important in animals? Explain by giving six points.

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(ii) .....

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8. (a) Classify the organisms given in the Table from Kingdom to the Phylum level.

Organisms	Kingdom	Phylum
(i) Plasmodium		
(ii) Amoeba		
(iii) Mushroom		

(b) Provide one disadvantage of the following organisms to human being.

(i) Amoeba

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(ii) Mushroom

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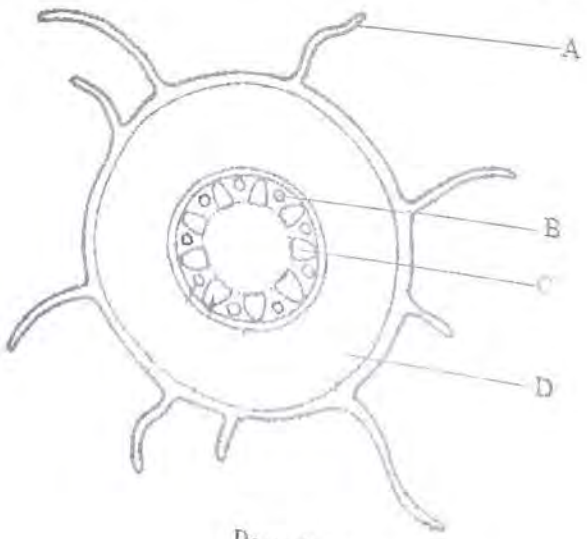
9. The following Figure shows the arrangement of vascular bundles in a monocotyledonous root. Study it careful and answer the questions that follow:



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