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

033 BIOLOGY

Time 2:30 Hours

Year: 2023

#### 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.
- 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. Cellular phones 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 U	SE ONLY
QUESTION NUMBER	SCORE	ASSESSOR'S INITIALS
1		
2		
3		
4		
5		1
6		
7		
8		
9		
10		
TOTAL		
CHECKER'S IN	ITIALS	



### Student's Assessment Number .....

#### SECTION A (15 Marks)

Answer all questions in this section.

. For ea letter i	ach of the items (i) - (x), choose the correct answer from the given alternatives and write in the box provided.	its
(i)	Which branch of biology deals with the study of plants?  A Taxonomy B Botany C Ecology D Zoology	
(ii)	A teacher sprayed a perfume in one corner of the classroom and after 10 minutes of entire classroom was filled with the smell of the perfume. Which process we demonstrated by the teacher?	
	A Osmosis C Transpiration D Diffusion	
(iii)	Farmers in Naiva village complain of passing blood - stained urine and faeces. Whi disease is likely affecting them?	ch
	A Gonorrhoea B Cholera	
	C Bilharzia D Malaria	
(iv)	A mother went to hospital with her baby complaining of the baby's high bootemperature. Which instrument will be used to examine the baby?  A Beam balance B Thermometer C Stop watch D Stethoscope	iy
(v)	What happens during the process of taking air into the lungs of human being?  A Air is pushed out of the lungs B The ribcage moves inwards  C The diaphragm contracts D The diaphragm relaxes	
(vi)	Why is chlorophyll necessary for photosynthesis?  A Absorbs sunlight energy B Splits water molecules C Manufactures carbohydrate D Transport water and minerals	
(vii)	Which practice would you recommend to control the cancer disease?  A Having frequent blood transfusion  B Doing regular physical exercises  C Taking enough fibres everyday  D Using chemo and physical therapy	

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(viii)	(ii) (iii)	They have cell They feed on c They have cell	g characteristic wall made up o lead and decay i wall made up o mbrane bound r	s applies to of chitin ng organic of cellulose	members	s of kingdom planta	ie?
		A (iii) and	(iv)	В	(i) and (		
		C (i) and (		D	(ii) and		
(ix)	A M B M C C	ilk, groundnut ilk, cassava, so abbage, spinac	recommend to s, beans and me orghum and wh h, cassava and wa, rice and yam	eat eat eggs	ering from	n kwashiorkor?	
(x)	A Fo	eeds on herbive onverts sunlight ecompose orga	ucers initiate en ores and release nt energy into cl anic matter and cal energy into s	nutrients hemical ene sets energy	ergy free	ystem?	
Match	the functi	ons of the blo	od vessels in L	ist A with t	the name	of the blood vesse	els in List B
			orrect response	below the	correspo	nding item numbe List B	er in a table
provide	ed.	Lis	t A	below the	correspo	List B	er in a table
	Transp	Lis orts oxygenate	orrect response	below the	A	name nem namee	T in a table
provide	Transp	Listorts oxygenate	t A d blood from th	ne lungs to	A	List B  Coronary artery	T in a table
provide	Transp the hea	Listorts oxygenate	t A	ne lungs to	A B	List B  Coronary artery Superior vena ca	ava
(i)	Transp	Listorts oxygenate	t A d blood from th	ne lungs to	A B C	List B  Coronary artery Superior vena ca Hepatic artery	ava "y
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(i)	Transp the hea Carries from th	Listorts oxygenate ort: blood contain the heart.	t A d blood from th	ne lungs to	A B C D E F G	List B  Coronary artery Superior vena ca Hepatic artery Pulmonary arter Inferior vena ca Renal vein Coronary vein	ava y va
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(i)	Transpothe heat Carries from the Transpothe lung	Listorts oxygenate ort:  blood contain the heart.  orts deoxygenate	t A d blood from the steed blo	ne lungs to	A B C D E F G	List B  Coronary artery Superior vena ca Hepatic artery Pulmonary arter Inferior vena ca Renal vein Coronary vein	ava y va
(i) (iii) (iv)	Transporthe head Carries from the Transporthe lung parts of	Listorts oxygenate rt: blood contain the heart.  orts deoxygenate rts deoxygen	t A d blood from the steed blood from the steed blood from the steed blood from the heart.	ne lungs to rials away the heart to the lower	A B C D E F G	List B  Coronary artery Superior vena ca Hepatic artery Pulmonary arter Inferior vena ca Renal vein Coronary vein	ava y va
(i) (iii)	Transporthe head Carries from the Transporthe lung parts of Transporthe Transporthe head Tr	Listorts oxygenate rt: blood contain the heart.  orts deoxygenate rts deoxygen	t A  d blood from the steed blood from the heart.  dted blood from the heart.	ne lungs to rials away the heart to the lower	A B C D E F G	List B  Coronary artery Superior vena ca Hepatic artery Pulmonary arter Inferior vena ca Renal vein Coronary vein	ava y va
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(i) (iii) (iv)	Transpothe heat Carries from the Transpothe lung parts of Transpothers of the lung parts of the lung p	Listorts oxygenate ort:  blood contain the heart.  orts deoxygenate orts d	t A  d blood from the steed blood from the heart.  dted blood from the heart.	ne lungs to rials away the heart to the lower	A B C D E F G H	List B  Coronary artery Superior vena ca Hepatic artery Pulmonary arter Inferior vena ca Renal vein Coronary vein	ava y va

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List B

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## SECTION B (70 Marks)

Answer all questions in this section.

3.	(a)	Identi Maras	fy the communicable and non-communicable diseases from the following list: mus, Scurvy, Cholera, Tuberculosis, Pellagra, Leukaemia, Malaria and Syphilis.
		(i)	Communicable diseases
			••••••
		(ii)	Non communicable diseases
			•••••
			••••••
	(b)	How	is each of the communicable disease sorted in (a) (i) transmitted?
4.	Form (a)	n Two st Why v	udents were asked to observe sections of plant cells using a light microscope.  vas it necessary to use such an instrument?
			••••••

	17.			

(b)

		Plant cell	Animal cell
			- Ammida Cell
	(i)		
	(ii)		
			******
	(iii)		
	(iv)		
			······································
<i>7</i> 1. \	TT H	111.1	
(b) ,	w nat v	will happen if the cell membrane is severe	ly damaged?
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6.

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(ii)		
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(:::)	••••••	
(iii)	•••••	
	• • • • • • •	
(iv)		
(a)	Ident	ify four components found in the First Aid kit and state the use of each one.
	(i)	
	(ii)	
	(iii)	
	(iv)	

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	(b)	Outl prob	ine four procedures you will follow to give the First Aid to a person with the lem of nose bleeding.
		(i)	
		(ii)	
		(iii)	
		(iv)	
8.	(a)	State	two Phyla of the Kingdom Fungi.
		•••••	
	(b)	"Fung	gi are important organisms to human being." By using four points, justify this
	25	State	nent.
		(i)	••••••
		(!:)	
		(ii)	
		(iii)	
		(111)	

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		(iv)	······································
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9.	Two prequir	mg bloc	have been severely injured in a car accident, leading to excessive bleeding hence od transfusion.
	(a)	Sugge	st four precautions to be considered before carrying out this process.
	( )	(i)	
			Ta
		(ii)	
		(iii)	
		(111)	
		(:-1)	
		(iv)	

	(b)	Why is blood transfusion important for these individuals? Give	
	(0)	why to obood transfeston important for these marviadais.	
		SECTION C (15 Marks) Answer question ten (10).	
			and to live a healthy live
0.	Caring In six p	and supporting people living with HIV/AIDS is essential for the points, justify this statement.	em to five a hearthy fives
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