# 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.
- Cellular phones and any unauthorised materials are not allowed in the assessment room.
- 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		
6		
7		
8		
9		
10		
TOTAL		
CHECKER'S IN	ITIALS	



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## SECTION A (15 Marks)

Answer all questions in this section.

1.	For each	th of the items (i) - (x), choose the correct answer from the given alternatives and write its the box provided.
	(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 the entire classroom was filled with the smell of the perfume. Which process was demonstrated by the teacher?  A Osmosis  B Mass flow
		C Transpiration D Diffusion
	(iii)	Farmers in Naiva village complain of passing blood - stained urine and faeces. Which disease is likely affecting them?
		A Gonorrhoea B Cholera
		C Bilharzia D Malaria
	(iv)	A mother went to hospital with her baby complaining of the baby's high body temperature. Which instrument will be used to examine the baby?  A Beam balance B Thermometer C Stop watch D Stethoscope
	(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

(viii)		Studen	t's Asses.	sment N	umber	
viii)	(ii) They feed on	ng characteristics I wall made up o dead and decay in I wall made up o	s applies to of chitin ng organic of cellulose	members matter	s of kingdom plantac?	
	A (iii) and		В	(i) and (		
	C (i) and	(iv)	D	(ii) and	(iv)	
(ix)	Which foods will you A Milk, groundnu B Milk, cassava, s C Cabbage, spinac D Sorghum, cassa	ts, beans and me orghum and whe ch, cassava and e va, rice and yam	at eat eggs s			
(x)	How do primary prod A Feeds on herbiv B Converts sunlig C Decompose org D Converts chemi	ores and release ht energy into chanic matter and s	nutrients nemical end sets energy	ergy free	ystem:	
ovide	d.		below the	correspo	onding item number in	
		+ 1			List B	
		t A	a lumas to		List B	
(i)	Transports oxygenate	Unit Manuscript	e lungs to	A	Coronary artery	
(i)	Transports oxygenate the heart.	Unit Manuscript	e lungs to	В	Coronary artery Superior vena cava	
	Transports oxygenate the heart:	ed blood from the		B C	Coronary artery Superior vena cava Hepatic artery	
(i) (ii)	Transports oxygenate the heart:  Carries blood contain	ed blood from the		B C D	Coronary artery Superior vena cava Hepatic artery Pulmonary artery	
	Transports oxygenate the heart:  Carries blood contain from the heart.	ed blood from the	ials away	B C D E	Coronary artery Superior vena cava Hepatic artery Pulmonary artery Inferior vena cava	
	Transports oxygenate the heart:  Carries blood contain from the heart.  Transports deoxygen	ed blood from the	ials away	B C D E	Coronary artery Superior vena cava Hepatic artery Pulmonary artery Inferior vena cava Renal vein Coronary vein	
(ii)	Transports oxygenate the heart:  Carries blood contain from the heart.	ed blood from the	ials away	B C D E	Coronary artery Superior vena cava Hepatic artery Pulmonary artery Inferior vena cava Renal vein	
(ii) (iii)	Transports oxygenate the heart:  Carries blood contain from the heart.  Transports deoxygen	ed blood from the	ials away	B C D E F G	Coronary artery Superior vena cava Hepatic artery Pulmonary artery Inferior vena cava Renal vein Coronary vein	
(ii)	Transports oxygenate the heart: Carries blood contain from the heart. Transports deoxygen the lungs. Transports deoxygen	ed blood from the sing waste mater ated blood from the heart.	the heart t	B C D E F G H	Coronary artery Superior vena cava Hepatic artery Pulmonary artery Inferior vena cava Renal vein Coronary vein	
(ii) (iii) (iv)	Transports oxygenate the heart:  Carries blood contain from the heart.  Transports deoxygen the lungs.  Transports deoxygen parts of the body to the lungs of	ed blood from the sing waste mater ated blood from the heart.	the heart t	B C D E F G H	Coronary artery Superior vena cava Hepatic artery Pulmonary artery Inferior vena cava Renal vein Coronary vein	

2.

List B

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# SECTION B (70 Marks)

Answer all questions in this section.

3.	(a)	Identit 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 i	is each of the communicable disease sorted in (a) (i) transmitted?
4.	Form (a)	Two str Why w	udents were asked to observe sections of plant cells using a light microscope.  vas it necessary to use such an instrument?

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5.	(a)	How does a plant cell differ from an animal cell? Give four key points.				
		Plant cell	Animal cell			
		(i)	** ***			
		()				
		(ii)	******			
		(**)				
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		(iii)	Property for			
		(iii)				
			51 = (600000000 to 20			
		(iv)				
	(b)	What will happen if the cell membrane is se	verely damaged?			
6.	meat,	community requested you to educate them about tomatoes, mangoes and vegetables. Briefly exproducts.	out modern methods of preserving its milk splain to them four methods for preserving			
	(i)					
		***************************************				
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(ii)	********	
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(iii)		
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(iv)		
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		The Additional state the use of each one
(a)	Ident	ify four components found in the First Aid kit and state the use of each one.
	(i)	
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	(ii)	*
	(11)	
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	(iii)	
	(iv)	

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	(b)	Out prob	line four procedures you will follow to give the First Aid to a person with the
		(i)	
		(ii)	
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		(iii)	
		(iv)	
3.	(a)	State	e two Phyla of the Kingdom Fungi.
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	(1-)	"F	
	(b)	State	
		(i)	
		(ii)	
		(iii)	

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		(iv)	
			·
9.	Two requir	ing bloc	nave been severely injured in a car accident, leading to excessive bleeding hence od transfusion.
	(a)	Sugge	est four precautions to be considered before carrying out this process.
		(i)	
		(ii)	
		X	
		(iii)	
		(111)	
		Yar ne	
		(iv)	

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	(b)	Why is blood transfusion important for these individuals?	-
		***************************************	
		SECTION C (15 Marks) Answer question ten (10).	
		T	
0.	Caring In six r	and supporting people living with HIV/AIDS is essential for points, justify this statement.	r them to live a healthy lives
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