

Candidate's Examination Number

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

033

BIOLOGY

Time 2:30 Hours

Wednesday, 14th November 2018 a.m.

Instructions

1. This paper consists of sections A, B and C with a total of **eleven (11)** questions.
2. Answer **all** questions in section A and B and **one (1)** question from section C.
3. All writing must be in blue or black ink **except** drawing which must be in pencil.
4. Calculators, cellular phones and any unauthorized materials are **not** allowed in the examination room.
5. Write your **Examination Number** at the top right corner of every page.

FOR EXAMINERS' USE ONLY		
QUESTION NUMBER	SCORE	EXAMINER'S INITIALS
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
TOTAL		
ENTERER'S INITIALS		
CHECKER'S INITIALS		



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SECTION A (30 Marks)

Answer **all** questions in this section.

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

(i) Which of the following mineral salt is required by plants in large quantity?

A Calcium

B Zinc

C Copper

D Iron.

(ii) Which of the following foods should be added to the diet of a person suffering from scurvy?

A Groundnuts

B Orange

C Cassava

D Fish.

(iii) A term which describes organisms with similar nutritional habits is known as

A community

B trophic level

C food chain

D food web.

(iv) The movement of bulk fluid materials along a vessel or tube is termed as:

A Transport

B Osmosis

C Mass flow

D Diffusion.

(v) Which of the following labels indicates a substance which catches fire easily?

A Corrosive

B Flammable

C Harmful

D Oxidant.

(vi) Which of the following type of waste cannot be recycled?

A paper

B metal scraps

C used syringe

D plastics.

(vii) A respiratory surface of fish is called

A Gills

B Spiracle

C Fins

D Operculum.

(viii) A structure which enclose and protect the inner parts of a cell is called

A cell wall

B chloroplast

C cell membrane

D nucleus.

(ix) A communicable disease which affects a large number of people in a short period of time at a given locality is referred as

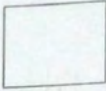
A pandemic

B endemic

C sporadic

D epidemic.

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- (x) Why bats and birds are **not** placed in the same species while they are closely related organisms?
- A They cannot interbreed to produce a fertile offspring
 - B They can interbreed to produce a fertile offspring
 - C One lay egg and another can give birth
 - D One possesses feathers and another short beak.
- 

2. For each of the items (i) – (x), write **True** if a statement is correct or **False** if a statement is not correct in a space provided.

- (i) People living with HIV/AIDS should be isolated from the community.....
- (ii) A microscope is an instrument that is used to magnify large objects.....
- (iii) Kingdom is the highest rank of classification.....
- (iv) In ecosystem herbivores feeds on carnivores.....
- (v) Inhaled air contains more oxygen than exhaled air.....
- (vi) Liverwort is a representative member of Kingdom Fungi.....
- (vii) Ventricles have thicker walls than the auricles.....
- (viii) Colon is a special site for absorption of digested food materials.....
- (ix) Unicellular organisms are made up of one cell only.....
- (x) Poor waste disposal may cause accidents at home and school.....

3. Match the phrase in **List A** with responses in **List B** by writing the letter of the correct response in **List B** below the corresponding phrase number of **List A** in a table provided.

List A		List B	
(i)	The process by which solvent molecules move from a region of high solvent concentration to a region of low solvent concentration through a selectively permeable membrane.	A	Diffusion.
		B	Root hair
		C	Plasmolysis
		D	Xylem
		E	Phloem
(ii)	The process by which particles move from a region of high concentration to a region of low concentration.	F	Haemolysis
		G	Capillarity
(iii)	An extended epidermal cell in plants which absorb water and mineral salts from the soil.		
(iv)	The tissue which transport manufactured food from the leaves to the other plant parts.	H	Osmosis
(v)	A process by which red blood cell burst due to water gain by osmosis when placed in hypotonic solution.		

Answer

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

4. Complete each of the following statements by writing the correct answer in the space provided.
- (i) A temporary treatment carried out to a sick person before arriving to hospital is termed as.....
 - (ii) Turning waste into useful products is termed as.....
 - (iii) A place where solid waste is buried in the ground is called.....

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- (iv) An involuntary ejection of substances from the stomach through the mouth is called.....
- (v) The combustion of waste at high temperature is known as.....

SECTION B (50 Marks)

Answer **all** questions in this section.

5. (a) State the meaning of the following terms as used in Biology.

(i) A cell

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(ii) System

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(iii) Organ

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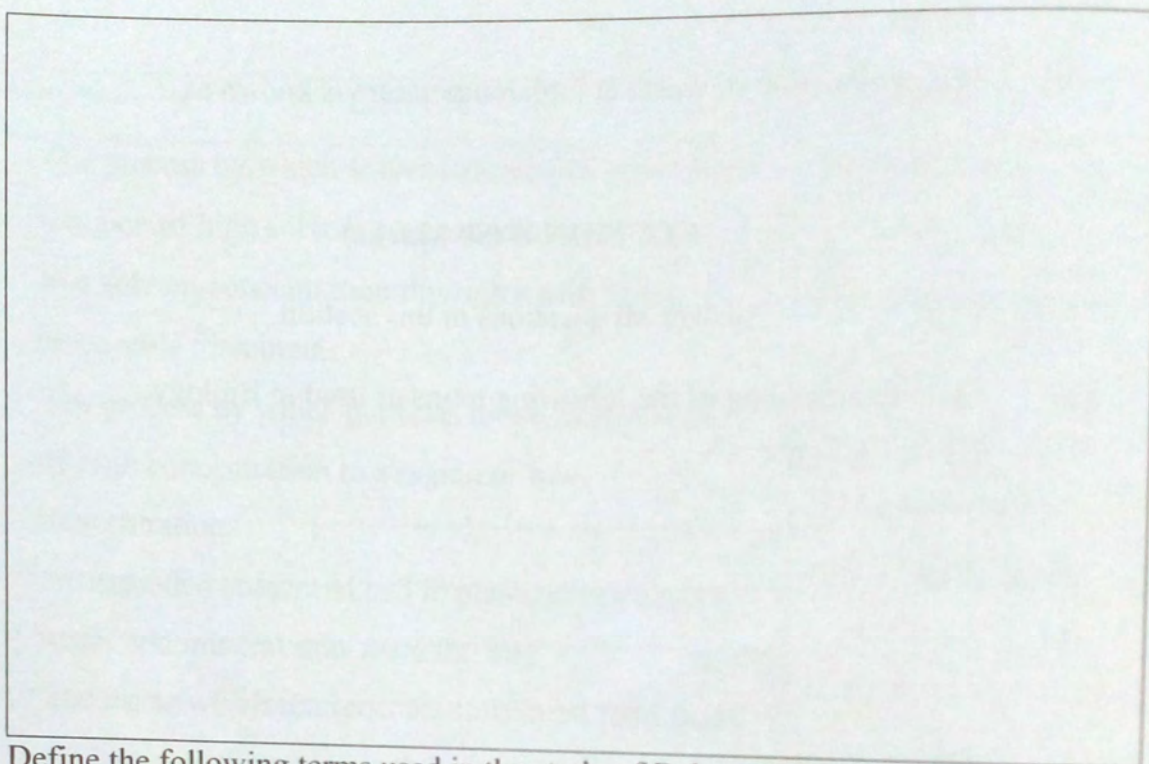
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- (b) Draw a large diagram of an animal cell and label two parts.



6. (a) Define the following terms used in the study of Balance of nature.

- (i) Biotic component

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- (ii) Abiotic component

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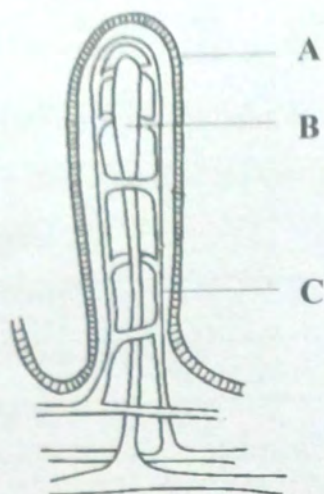
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- (b) Give two examples of each of the following group of organism in trophic levels:

S/N	Producers	Primary Consumers	Decomposers
(i)			
(ii)			

7. Study the structure of a villus shown below and then answer the questions that follow:



- (a) In which part of the alimentary canal is villus found?.....
- (b) Name the parts labeled with letter A, B and C
- A.....
- B.....
- C.....
- (c) State three adaptations of the villus for the absorption of food in the alimentary canal.
- (i)
- (ii)
- (iii)
8. If you put a piece of bread in a wet cupboard after a few days the bread will be covered with organisms called Fungi.
- (a) Give the common name of these fungi which grow on bread.
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- (b) Outline three Phyla of the Kingdom Fungi.
- (i);
- (ii)
- (iii)

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(c) Outline five advantages of the Kingdom Fungi.

- (i)
-
- (ii)
-
- (iii)
-
- (iv)
-
- (v)
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9. (a) Define the following terms:

(i) Aerobic respiration.

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

(ii) Anaerobic respiration.

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.....
.....

(b) Mention three products of anaerobic respiration in yeast cell.

- (i)
- (ii)
- (iii)

(c) Write a balanced equation that summarizes the process of aerobic respiration.

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