

Candidate's Number: \_\_\_\_\_



**TANZANIA HEADS OF ISLAMIC SCHOOLS COUNCIL**  
**FORM TWO INTER ISLAMIC MOCK EXAMINATION**

**BIOLOGY**

**033**

**TIME: 2:30 Hours**  
**a.m.**

**Monday 17<sup>th</sup> September, 2018**

**Instructions**

1. This paper consists of sections A, B and C.
2. Answer all questions from section A and B and only ONE question from section C.
3. Except diagrams which must be in pencil, all writings should be in blue/black ball point pen.
4. Calculators and Cellular phones are not allowed in the Examination room.
5. Write your Examination Number on every page of your answer booklet(s).

<b>FOR EXAMINER'S USE ONLY</b>		
<b>QUESTION NUMBER</b>	<b>SCORE</b>	<b>EXAMINER'S INITIAL</b>
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

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11		
<b>TOTAL</b>		

**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 beside the item number in the box provided.

(i) The part of a light microscope used for controlling the amount of light is:

A. Base

B. Eyepiece

C. Diaphragm

D. Mirror

E. Stage

( )

(ii) The following are the effective ways of reducing wastes except:

A. Using recycled materials

B. Buying new plastic shopping bags every time you go for shopping

C. Using rechargeable batteries

D. Using cloth instead of paper to clean windows

E. Using empty margarine container to keep sugar

( )

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- (iii) In which of the following mammalian blood vessel does deoxygenated blood flow away from the heart (    )
- A. Aorta
  - B. Hepatic portal vein
  - C. Pulmonary vein
  - D. Pulmonary artery
- (iv) \_\_\_\_\_ is the immunity obtained from the mother through breast feeding (    )
- A. Natural passive immunity
  - B. Artificial passive immunity
  - C. Natural active immunity
  - D. Artificial active immunity
- (v) The muscular sheet of tissue that separate thorax from abdomen is called: (    )
- A. Ribs
  - B. Pericardium
  - C. Glottis
  - D. Diaphragm
- (vi) Blood group AB has: (    )
- A. Antigen A and antibody B
  - B. Antigen B and antibody A
  - C. No antigen and antibody A and B
  - D. Antigen A and B and no antibody

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(vii) The part in ruminant animals that corresponds to human stomach is:

- A. Rumen
- B. Reticulum
- C. Abomasum
- D. Omasum

( )

(viii) In a food chain organisms with similar nutritional habits constitute a:

- A. Trophic level
- B. Food web
- C. Community
- D. Population

( )

(ix) Which of the following distinguish a plant cell from an animal cell:

- A. Cell membrane, centriole and cytoplasm
- B. Cell wall, chloroplast and vacuole
- C. Cell wall, chloroplasts and cytoplasm
- D. Cytoplasm, mitochondria and nucleus

( )

(x) Gastric gland secrete the following enzymes:

- A. Trypsin and maltase
- B. Amylase and erepsin
- C. Pepsin and rennin
- D. Lipase and maltase

( )

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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) A brick red precipitate is formed when a bean seed extract is boiled with iodine solution. \_\_\_\_\_.

(ii) The plant cell becomes plasmolysed in hypotonic solution.  
\_\_\_\_\_

(iii) Air, water and soil are examples of abiotic component of the environment.  
\_\_\_\_\_

(iv) A structure which prevents the entrance of food and water into the trachea is called villus. \_\_\_\_\_

(v) Fermentation is a form of aerobic respiration in plants.  
\_\_\_\_\_

(vi) Heart, liver and leaves are examples of organs. \_\_\_\_\_

(vii) Hugging and holding hands leads to HIV transmission.  
\_\_\_\_\_

(viii) Mosses and Liverworts have true roots, stems and leaves.  
\_\_\_\_\_

(ix) Reducing and re-using are basic principles of waste disposal.  
\_\_\_\_\_

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(x) Tuberculosis is an epidemic disease. \_\_\_\_\_

3. Match the phrase in list A with responses in list B by writing the letter of the correct response from list B below the item number of list A in a table provided.

LIST A		LIST B
(i)	Prevent blood from flowing back into the ventricles	A. Bicuspid valve
(ii)	Carries oxygenated blood from the lungs to the heart	B. Septum
(iii)	Prevent mixing of oxygenated and deoxygenated blood	C. Tricuspid valve
(iv)	Prevent backward flow of blood from right ventricles to the right auricle	D. Pericardium
(v)	Double layer of tough inelastic membrane which encloses the heart	E. Semi lunar valve
		F. Right auricle
		G. Left Ventricle
		H. Pulmonary vein

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) \_\_\_\_\_ transport water and mineral salt from the roots to the rest of the plant.

(ii) \_\_\_\_\_ is the force that makes liquid such as water to move up a narrow tube.

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- (iii) \_\_\_\_\_ transport manufactured food from the leaves to the rest of the plant.
- (iv) \_\_\_\_\_ is the process whereby plant loses water as droplets.
- (v) \_\_\_\_\_ is the movement of substance in the phloem.

**SECTION B (50 Marks)**

Answer all questions in this section

5. (a) What is a biology laboratory?

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(b) Highlight five qualities of a good laboratory.

- (i) \_\_\_\_\_
- (ii) \_\_\_\_\_
- (iii) \_\_\_\_\_
- (iv) \_\_\_\_\_
- (v) \_\_\_\_\_

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(c) How does biology laboratory differ from other school facilities?

(i) \_\_\_\_\_

(ii) \_\_\_\_\_

(iii) \_\_\_\_\_

6. (a) Define the term peristalsis

\_\_\_\_\_  
\_\_\_\_\_

(b) Why it is possible for a person to swallow food while standing on his head (upside down)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6. (c) How is the ilium adapted to the absorption of food:

(i) \_\_\_\_\_

(ii) \_\_\_\_\_

(iii) \_\_\_\_\_

(iv) \_\_\_\_\_

(v) \_\_\_\_\_

7. (a) Define the term ecosystem

\_\_\_\_\_  
\_\_\_\_\_



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(b) Distinguish between food web and food chain

	<b>Food web</b>	<b>Food chain</b>
(i)	_____ _____	_____ _____
(ii)	_____ _____	_____ _____

(c) Construct a simple food web involving the following organisms:  
grasshopper, frog, grass, hawk and snake.

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8. (a) (i) What is a gaseous exchange?

\_\_\_\_\_  
\_\_\_\_\_

(ii) Why is it healthier to breathe through the nose than through the mouth cavity?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(b) Outline two factors affecting the rate of breathing in mammals

(i) \_\_\_\_\_

(ii) \_\_\_\_\_

(c) Give differences between inhaled air and exhaled air.

	Inhaled air	Exhaled air
(i)	_____	_____
(ii)	_____	_____
(iii)	_____	_____
(iv)	_____	_____

9. (a) With examples define the following

(i) Personal hygiene

\_\_\_\_\_  
\_\_\_\_\_

(ii) Good manners:

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9. (b) What changes differentiate boys and girls during puberty?

Changes in boys:

(i) \_\_\_\_\_

(ii) \_\_\_\_\_

(iii) \_\_\_\_\_

Changes in girls

(i) \_\_\_\_\_

(ii) \_\_\_\_\_

(iii) \_\_\_\_\_

**SECTION C (20 Marks)**

Answer **only one (1)** question in this section

10. Write an essay on Tuberculosis using the following guidelines:

- Cause of the disease
- Mode of transmission
- Symptoms of the disease
- Effects of the disease
- Prevention and control





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## **Wabillah Tawfiiq**