

Candidate's Index Number



**THE UNITED REPUBLIC OF TANZANIA
THE PRESIDENT'S OFFICE
REGIONAL ADMINISTRATION AND LOCAL
GOVERNMENT
TANGANYIKA DISTRICT COUNCIL
FORM FOUR MOCK EXAMINATIONS**



BIOLOGY 1

033/1

Time: 3:00 Hours

April, 2023

INSTRUCTIONS

1. This paper consists of three sections A, B and C with a total of eleven (11) questions.
2. Answer all questions from Section A and B and two (2) questions from section C.
3. Section A carries sixteen (16) marks, Section B fifty four (54) marks and Section C carries thirty (30) marks.
4. All writing should be in blue/black ink except for diagrams which must be drawn in pencil.
5. Write all answers in the answer sheet(s) provided.
6. Cellular phones and other unauthorized materials are not allowed in the examination room.
7. Write your Examination Number on every page of your answer sheets.

FOR EXAMINERS' USE ONLY

QUESTION NUMBER	SCORE	EXAMINER'S INITIALS
01		
02		
03		
04		
05		
06		
07		
08		
09		
10		
11		
TOTAL		
CHECKER'S INITIALS		

SECTION A (16 marks)

Answer all questions in this section

1. Choose the most correct response among the given alternatives and write its letter beside the item number in the answer sheets provided.
- (i) Height of an individual is an example of the traits which show continuous variations because
- A. Shows clear-cut differences
 - B. Shows two extremes
 - C. It is qualitative
 - D. Shows intermediate form
- (ii) What is the main product of anaerobic respiration in animals?
- A. Alcohol
 - B. Pyruvic acid
 - C. Lactic acid
 - D. Uric acid
- (iii) Filaria worms belong to which of the following phylum?
- A. Platyhelminthesis
 - B. Nematoda
 - C. Anthropoda
 - D. Annelida
- (iv) An instrument which can be used to identify small sections of cells from a cross-section cut of a leaf is:
- A. Test tube
 - B. Microscope
 - C. Watch glass
 - D. Hand lens
- (v) Malnutrition disorder which is caused by intentional intake of very little amount of food is called:
- A. Marasmus
 - B. Kwashiorkor
 - C. Anorexia nervosa
 - D. Hypoglucocorticoids
- (vi) Egg cells and paramecia move by using:
- A. Cilia
 - B. Flagella
 - C. Pseudopodia
 - D. Cell membrane
- (vii) A process of formation of chiasmata occurs in:
- A. Prophase I of Meiosis I

- B. Prophase I of Meiosis II
 - C. Prophase of Mitosis
 - D. Metaphase I of Meiosis I
 - E. Metaphase of Mitosis
- (viii) The peculiar feature of Cardiac Muscles is that they are:
- A. Myogenic
 - B. Made up of muscle fibres
 - C. Containing multi-nuclei and cardio-discs
 - D. Involuntary
- (ix) When the first day of Menstruation was 8th April on which date is a woman of 28 days cycle most likely to ovulate?
- A. 22nd April
 - B. 5th May
 - C. 16th April
 - D. 21st April
- (x) The by-products in photosynthesis process are termed as:-
- A. Oxygen, water, carbohydrate
 - B. Carbohydrate and carbondioxide
 - C. Carbohydrate and water
 - D. Carbondioxide and oxygen

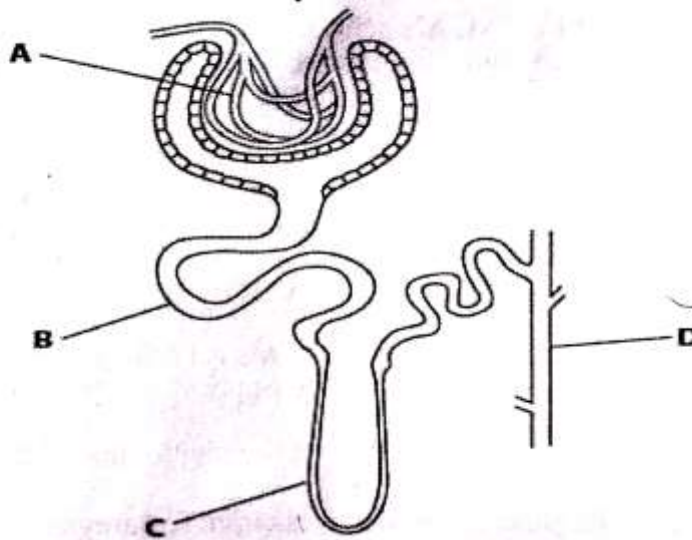
2. Match the items in **List A** with their correct responses from **List B** and write the letter of the correct response beside the item number in the answer sheets provided.

List A	List B
(i) Prevents entry of food in the trachea (ii) Emulsification of fat (iii) Ruminants (iv) Prostitution, drug abuse and drinking (v) The series of wave-like muscular contraction of the wall of esophagus (vi) Assimilation	A. Chewing the cud B. Animals with four chambers of stomach C. Peristalsis D. Absorbs water and mineral salts E. Absorbs sunlight energy F. Risk behavior G. Bile H. Epiglottis have exoskeleton I. Using up the food within the body cells J. Absorption of food within the cell

SECTION B (54 Marks)

Answer **all** questions in this section

3. Study the following diagram carefully and then answer the following questions:



- (a) Identify the diagram represented above and give its function.
 - (b) Name the parts labeled A to D.
 - (c) Where does ultrafiltration take place?
 - (d) Where does reabsorption of glucose take place?
 - (e) Which part responds to change in ADH?
4. While performing surgery on mammals, two blood vessels cut accidentally. In one of the vessels, the blood vessel flown out with high pressure, while the other blood flown out with low pressure.
 - (a) What are the names of two vessels?
 - (b) Explain briefly one blood vessel had high pressure while other had low pressure.
 - (c) State five (5) differences between two blood vessels named in (a) above.
 5. The IYUNGA'S School garden comprises of the grasses, fern plants, natural water fountain, butterflies, lizards, grasshoppers, fertile soil, snakes, highly oxygenated atmosphere, centipedes, scorpions and owl.
 - (a) (i) Mention three biotic components and three abiotic components present in the IYUNGA'S School garden.
(ii) State the roles of the abiotic components mentioned in 5 (a) (i) above.
 - (b) Construct a food web of the IYUNGA'S School garden ecosystem.
 - (c) Is the IYUNGA'S School garden ecosystem complete (stable) or not complete? Support your answer.
 6. Why is photosynthesis important to living organism? Give four reasons.
 7. (a) Briefly explain why sex-linked dominant trait occurs more often in female than males.
(b) Explain causes and effects of the following:
 - (i) Turner's syndrome

(ii) Down's syndrome

8. Movement is very important in all living organisms in the world. By giving one example in each case, explain four types of movement exhibited by different living organisms.

SECTION C (30 Marks)

Answer **two** (2) questions from this section, **question number 09** is compulsory

9. Write an essay of Kwashiorkor on the following guidelines:
- Meaning
 - Causes
 - Signs and symptoms
 - Treatment for Kwashiorkor
10. Explain four family planning methods and indicate one disadvantage of each.
11. Gaseous exchange in plants occurs mainly through stomata, but plants do not need specialized organs for gaseous exchange. Give four reasons why plants do not need specialized organs for gaseous exchange like in animals.

