**THE UNITED REPUBLIC OF TANZANIA**

**PRESIDENT`S OFFICE**

**REGIONAL ADMINISTRATION AND LOCAL GOVERNIMENT AUTHORITY**

**FORM FOUR MOUNTHLY TEST 2019**

**BIOLOGY**

**TIME 3:00 HOURS March 2019**

 **Instructions**

1. This paper consist of section A,B and C with a total of thirteen (13) questions

2. Answer all questions from section A and B and one question from section C.

3. Except for diagrams that must be drawn in pencil, all writing should be in blue or black ink.

4. Calculator, cellular phones and any unauthorized materials are not allowed in the examination room

5. Write your Examination Number on every page of your answer booklet.

**SECTION A (20 MARKS)**

Answer **all** questions from this section.

1. For each of the following items (i) – (x), choose the correct answer from among the given alternatives and write its letter beside the item number in the answer booklet.

(i) Mitosis normally takes place in

A reproductive cells

 B animal cells only

 C plant cells only

 D blood plasma

 E somatic cells

(ii) How many gametes are produced from cell during meiosis?

 A Eight

 B Two

 C Six

 D Four

 E Ten

(iii) Which of the following is an excretory organ in human?

 A Mouth

 B Anus

 C Kidney

 D Stomach

 E Pancreas

(iv)A joint which allow rotation in all plane is called

 A suture

 B ligament

 C ball and socket

 D pivot

 E hinge

 (v) The function of bright colored petals in flower is

 A to store nectarines

B to hold sepals in position

C to produce color of the flower

 D to attract insects for pollination

 E to receive pollen grain

(vi)The interaction between two species in which both organisms benefit is known as

 A parasitism

 B ectoparasite

 C endoparasite

 D mutuarism

 E commensalism

(vii) Organisms that feed on both plants and animals are called

1. amnivores

 B carnivores

 C herbivores

 D saprophytes

 E parasite

(viii) Which of the following is not found in alimentary canal?

 A pancreas

 B kidney

 C ileum

 D deudenum

 E colon

(ix) Living organisms are classified into

 A two major kingdom

 B three major kingdoms

 C five major kingdoms

 D four major kingdoms

 E six major kingdoms

(X) Two cell organelles used to distinguish plant cells from animal cells are:-

 A mitochondria and cytoplasm

 B plasma membrane and cell wall

 C chloroplast and mitochondria

 D nucleus and vacuole

 E chloroplast and cell wall

2. Match the phrases in List A with the responses in List B by writing the letter of the correct response from List B beside the item number of List A in your answer booklet.

|  |  |
| --- | --- |
|  List A |  List B |
|  (I) Convey oxygenated blood from the heart to the body tissues (ii) convey oxygenated blood from the lung to the heart (iii) convey the deoxygenated blood from the body tissue to the heart (iv) convey deoxygenated blood from the heart to the lungs (v) transport nutrients and waste product from maternal to fetus and back (vi) responsible for transport of oxygen in the body (vii) Responsible for body defense and immunity (viii) Responsible for blood clotting (ix) a disorder characterized by failure of blood clotting (x) a pandemic disease caused by virus and has no cure to the moment | A HemophiliaB AIDSC AortaD pulmonary arteryE pulmonary veinF vena cavaG Umbrical cordH LeucocyteI ErythrocyteJ thrombocyteK HIVL Renal arteryM Renal veinN Anemia. |

**SECTION B (60 Marks)**

Answer all questions from this section

All questions carry **8 marks** except question number (3) and (7) which carry **6 marks**

3 (a) Differentiate the term “Biological apparatus” from “Biological Laboratory”

(b) Mention one thing which make biology laboratory differ from other science laboratory

(c) Outline three differences between biology laboratory and classroom

4. (a) Define the following terms

 (i) Blood transfusion

 (ii) Blood compatibility

 (b) State two advantages of blood transfusion

 (c) Outline four precautions to be taken during blood transfusion.

5. (a) What is classification

 (b) Mention three importance of studying classification

 (c) Tabulate four differences between natural and artificial classification

6. (a) Outline the four division of kingdom plantae

 (b) Use four points to differentiate monocotyledonae from dicotyledonae

7. What is nutrition?

 (b) Draw a well labeled diagram to show alimentary canal

8. (a) Define the following terms

 (i) Xylem

 (ii) Phloem

 (b) Draw a well labeled diagram to show plant vascular tissues

9. (a) Define the following terms

 (i) Homeostasis

 (ii) Osmoregulation

 (b) Briefly explain the mechanism of sugar regulation in the body of human

 (c) Mention four ways used by human to regulate the body temperature when the environment temperature is increased.

10. (a) What is excretion?

 (b) Mention three excretory organs in animals

 (c) Mention four adaptation of camel in the desert

**SECTION C (20 Marks)**

Answer **one** question from this section.

11. (a) (i) What is growth

 (ii) Mitosis

(b) Is there any relationship between growth and mitosis?

 (c) Tabulate the differences between mitosis and meiosis

 (d) Summarize five significances of mitosis in living organism

12. (a)Define the term transpiration

 (b) Mention three types of transpiration

 (c) Briefly explain five factors affecting the rate of transpiration

 (d) Outline two significances of transpiration to plants and animals.

13. Write an easy on malaria