# THE UNITED REPUBLIC OF TANZANIA

# PRESIDENT'S OFFICE

## REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT



### ACHIEVE EDUCATIONAL SERVICES NETWORK

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### FORM 4 EVALUATION EXAMINATIONS

## **BIOLOGY**

Name:	School:			
Region:	District:			
SECTION A (15 MARKS)				
	Answer all questions			

- 1. For each of items (i-x) choose the correct answer from item number alternatives and write its letter beside the item number.
  - i. The site of the thickest musculature in the heart is the;
    - A) Right atrium B) Left ventricle
    - C) Aorta D) Right ventricleE) Left atrium
  - ii. Asthma is characterized by
    - A) Spasm in bronchial muscle B) Damage in diaphragm
    - C) Alveolar wall degradation D) Pain in lungs. E) Leakage in diaphram
  - iii. Asthma is characterized by
    - A) Spasm in bronchial muscle B) Damage in diaphragm
    - C) Alveolar wall degradation D) Pain in lungs. E) Leakage in diaphram

iv.

In his findings on inheritance and variation Mendel did not deal with

- A) Segregation B) Incomplete dominancy
- C) Linkage D) hybridization E) Independent assortment
- v. In his findings on inheritance and variation Mendel did not deal with

- A) Segregation B) Incomplete dominancy
- C) Linkage D) hybridization E) Independent assortment
- 2. Fill in the blank spaces by using the appropriate terms

LIST A	LIST B	
(i) Basic hydroxide (ii) Amphoteric hydroxide (iii) Conc Nitric acid (iv) Sodium (v) Metal	1. Insoluble hydroxide 2. Stored under paraffin 3. Cannot be oxidized 4. Powerful oxidizing agent 5. Soluble hydroxide 6. Are easily oxidized 7. Difficult to reduce 8. Are easily reduced 9. Weak oxidizing agent 10. Stored in vacuum	

## **SECTION B (60 MARKS)**

#### Answer ALL questions in this section

- 3. a) Why is reproduction essential for organisms
  - b) Differentiate between gametogenesis from embryogenesis
- 4. Give reason(s) for the following
  - a. Cell wall is important organelle for plant cell.
  - b. No sun no life
  - c. Virus is a non-living thing
- 5. a) Mention two functions of the stomach
  - b) List any two adaptations of small intestine to the functions it performs
  - c) State two conditions necessary for photosynthesis.
- 6. a) Define the term (i) diseases. (ii) Health (iii) Immunity
  - b) Give one example of the following diseases.
    - i. Protozoa disease
    - ii. Viral disease
    - iii. Bacterial disease
    - iv. Fungal disease
- 7. a) Briefly Summarize the changes that occur during germination
  - b) Mention any four (4) factors that cause seed dormancy.
- 8. Kitungi's father has been advices by a doctor to reduce his sugar intake as a result of suffering from a certain disease
  - a. Name the disease he is suffering from
  - b. What is the cause of the disease.?
  - c. Identify the gland and mention the function of the hormone whose deficiency leads to the problem he has.
- 9. (a) Define the following terms:
  - i) Anaerobic respiration, ii) Breathing, iii) RespiratoryCentre

- (b) why plants produce carbon dioxide at night and oxygen during the day.
- (c) What happens to the rate of breathing process in man going up a hill?
- 10. Explain why
  - i. A person tend to urinate frequency after drinking alcohol.
  - ii. A person with cold losses a sense of smell
- 11. Briefly explain main points of Darwin's theory of evolution
- 12. (a) Define the following terminologies (i) Genotype (ii) Phenotype (iii) Sex liked gene
  - (b) Tabulate any four differences between Deoxyribonucleic Acid and Ribonucleic

## **SECTION C (25 MARKS)**

#### Answer any Two (2) questions in this section

- 13. The government of Tanzania prohibit the use of plastic bags in order to reduce environmental pollution caused by those plastics bags since plastics bags do not decompose easily .It seems that the government use one of the principle of waste disposal.
  - a. Mention the principle used by the government.
  - b. Explain other two principles apart from that used by the government
  - c. Explain any four simple ways in which the principle mentioned in (a) above can be achieved.
- 14. Without the diagram explain the mechanism of breathing
- 15. Without the diagram explain the mechanism of breathing.