

FORM ONE BIOLOGY
HOLIDAY ASSIGNMENT
APRIL, 2024

1. Write three major differences between plants and animals.
2. List the use of the energy obtained from the process of respiration.
3. a) What is meant by the term binomial nomenclature? (1mk)
b) Give two reasons why classification is important (2mks)
2. Explain the following terms; (3mks)
 - a) Classification
 - b) Taxonomy
 - c) Binomial nomenclature
- d. State three characteristic similar in plants and animals.
3. Define the term species. (1mk)
4. Distinguish between Taxonomy and taxon. (1mk)

5. Which organelle would be abundant in?

Skeletal muscle cell _____

Palisade cell _____

6. State the functions of the following organelles.

Lysosomes _____

Golgi apparatus _____

7. State the functions of the following organelles;

Goigi apparatus _____

Ribosomes cell _____

8. Name the organelles that perform each of the following functions in a cell.

Protein synthesis _____

Transport cell secretions _____

9. The diameter field of view of a light microscopic is 3.5mm. Plant cells lying of the diameter are 10.

Determine the size of one cell microns ($1\text{mm} = 1000\mu\text{m}$)

10. Define the following

i) Tissue

ii) Organ

iii) Organ system

11. Distinguish between the following terms :-

a) Magnification and resolution of a microscope

b) Mounting and staining of a specimen

12. Name the organelle that performs **each** of the following functions in a cell.

(a) Transport of packaged glycoproteins

(b) Destruction of worn out cell organelles

(c) Synthesis of proteins

13. Why are the following procedures done when preparing sections to be observed under a Light microscope?

(a) Making of thin sections

(b) Using a sharp blade to make the sections

(c) Staining

14. What are the functions of the following parts of a light microscope?

(a) Eye piece lens

b) Condenser

15. Identify the structures of the cells that perform the following functions:-

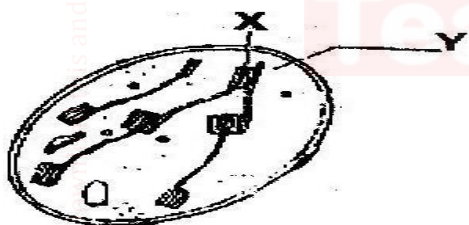
(a) Synthesize ribosomes

(c) Regulate exchange of substances in and out of the nucleus

6.

a) State the function of cristae in mitochondria (1mk)

b) The diagram below represents a cell organelle



(i) Name the part labeled Y (1mk)

(ii) State the function of the part labeled X (2 mks)