**BIOLOGY**

**FORM ONE**

**END-TERM 1 EXAM 2021**

 **TIME:2HRS**

**NAME------------------------------------------------------------------------CLASS---------ADM-----------**

1. i)Give the meaning of biology. (1mrk).

ii) State and explain the two major branches of biology(.2mrks)

1. Give three importance’s of studying biology? (3mrks)
2. Name and explain the eight characteristics of living things. (8mrks)
3. Motor vehicles move, use energy and produce carbon (iv) oxide and water. Similar characteristics occur in living organisms yet motor vehicles are not classified as living. EXPLAIN. (3mrks)
4. Why is nutrition important in living organisms. (2mrks)
5. Identify the following apparatus as used in biology and for each, give the function and an example of organism collected. (12mrks)









1. Distinguish between the following terms.
	* + - 1. Taxon and taxonomy (2mrks)
				2. Genus and species(2mrks)
2. Give 4 differences between plants and animals. (4mrks,)
3. What do you understand by the term binomial nomenclature? (2mrks)
4. A student observing a leg of an insect under a hand lens made a drawing of the leg whose length was 4cm with a magnification of X2. What was the actual length of the length.? (2mrks)
5. A form one student, trying to estimate the size of onion cells observed the following on microscope’s field of view
	* 1. 

He counted 20 cells across the field of view. Calculate the size of one cell in micrometers. ( 2mks)

b) State the function of the following parts in a microscope. (5mks)

1. Mirror.
2. Condenser
3. Body tube
4. Revolving nose-piece
5. Fine adjustment knob.



1. Name the organelle shown in the diagram above and give its functions (2mk
2. State functions of the following cell structures.
3. Vacuoles, 1mk
4. Nucleolus, 1mk
5. In which two ways are the organelles chloroplast and mitochondria similar. 2mks
6. What is meant by resolving power of a microscope. 2mks
7. Give the function for the following process when preparing temporary slides. 3mks
	1. Sectioning
	2. fixation.
8. Addition of iodine solution, to an onion epidermis on a slide while being observed on a light microscope.
9. Give the meaning of the following terms, giving an example in each case. (6mrks)
	1. A tissue
	2. An organ
	3. An organ system.