

General Biology (Biol.1012) individual Assignment 2012 E.C

Mekdela Amba University

College of Natural and Computational Science

Department of Biology

General Biology (Biol.1012)

General Biology Individual Assignment for MAU Freshman students 10%

NameID No

1. XY XXXXXX

Submission date: May/ 15/ 2020 G.C

Submitted to (your instructor name)

Tulu Awuliya Wollo, ETHIOPIA

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1. Write down the main steps of the scientific methods in sequence? In scientific experiment what are controlled group, experimental group, dependent variable and independent variable? Discuss and differentiate each term.
2. Discuss on monosaccharides, oligosaccharides, disaccharides and polysaccharides about their properties, structure, functions ...give example for each class.
3. Briefly explain the following terminology

Condensation reaction, Hydrolysis reaction, saturated fatty acids, unsaturated fatty acids, deoxyribose sugar, ribose sugar,
4. Compare and contrast the functions of carbohydrates, lipids, proteins, and nucleic acids.
5. What is the function of water, mineral and vitamins in living cell to normal functioning?
6. Discuss the difference between prokaryotic cell and eukaryotic cell?
7. Protein has different levels of structures. List down each level and discuss their difference.
8. Discuss the cell theory by supporting findings of different scientists for the development of cell theory.
9. What is the main difference between passive transport and active transport?
Briefly define each term and give example for each.
10. List down factors affecting the rate of diffusion.
11. What are the common features of all living things?

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12. Some cell organelles are common for both plants and animals. Whereas others, some present in plants but absent in animals conversely others present in animals but absent in plants. The following table given you to put “√” if that organelle is present or “X” if that organelle is absent, finally in the last column the function of each organelle will be jot down.

For example, Ribosome is common for plants and animals so put √ in both column finally the function is described. So in the same way do the rest.

No	Cellular Organelles	Plant	Animal	Function
1	Nucleus	√	√	Control the whole activities of an organism.
2	Chloroplast			
3	Mitochondria			
4	Vacuole			
5	Golgi apparatus			
6	Lysosome			
7	Cell membrane			
8	Cell wall			
9	Cytoskeleton			
10	Ribosome			
11	Centrioles			
12	Endoplasmic reticulum			

NB:

Your work **MUST** have the following parts. If not, you will lose some **MARK** from each part.

1. **Cover page:** It contains full information. Look page 1 of this paper.
2. **Introduction:** Background with 2 or 3 paragraphs.
3. **Main Body of your work:** Detail information of your work must be appear here. You have to discuss briefly each aspect, dig out sufficient information, so you may use paragraphs, diagrams (figures), tables and charts to make your work smart and clear.

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4. **Conclusion** (summary): you must tight your work with one paragraph (a maximum of 5 to 7 lines).
5. **Reference:** This is final (end) part. To do this assignment you may use internet website, books, Journals, Handout... so you have to cite your source.

GOOD LUCK !!!!!!!