

REVIEW QUESTIONS UNIT 1.
HOW THE LIVING MATTER IS ORGANIZED

1.- List the different levels of organization. Give an example of each one and divide them into biotic and abiotic levels.

2.- Convert between the following units using conversion factors:

- a) 42000 m ----- Km
- b) 62 μm ----- m
- c) 33 nm ----- Å
- d) 20 mm ----- nm

3.- Explain the difference between :

- a) Organic and inorganic compounds.
- b) Carbohydrates and lipids.
- c) Mitochondria and chloroplasts.
- d) Prokaryotic and eukaryotic cells.
- e) Glucose and Chitin.
- f) Cell membrane and cell wall.

4.- Define the following concepts and explain what their function is:

- a) Starch.
- b) Deoxyribonucleic acid.
- c) Ribosomes.
- d) Calcium phosphate.

5.- Complete the following sentences:

- a) Most chemical reactions within _____ could not take place without _____.
- b) Proteins are made up of smaller molecules called _____. In nature, there are only _____ types of these basic components of proteins.
- c) Nucleic acids are organic molecules made up of _____, _____, _____, _____ and _____.
- d) Organisms that exist as single cells are called _____ and organisms that are made up of groups of cells working together are called _____.

6.- Draw an animal cell and a plant cell. Make sure to draw and label all of the part listed below in each one:

Cell Membrane

Cell Wall

Ribosomes

Rough Endoplasmic Reticulum

Smooth Endoplasmic Reticulum

Golgi Apparatus

Mitochondria

Lysosomes

Chloroplast

Vacuole

Cytoplasm

Nucleus

DNA