The Organisation of Living Things

Solution 1.a:

The different levels of organisation in living things are

1. Cell level organisation
2. Tissue level organisation
3. Organ level organisation
4. System level organisation

Solution 1.b:

In euglena, we see cell level organisation.

Solution 1.c:

When organisation at the cellular level falls short of carrying out all life processes, the organisation at the tissue level develops. Tissue level organisation is made of tissues. In tissue level organisation, cells function in groups in order to carry out various life processes of the body. Moss and hydra show tissue level organisation.

Solution 1.d:

Various kinds of tissues come together to form an organ. These organs perform different functions at different stages in the life of the organism. Such an organisation developed at the organ level is called organ level organisation.

Solution 1.e:

Some of the organ systems are the digestive system, circulatory system, nervous system, respiratory system, reproductive system and excretory system.

Solution 2.a:

Population level: The population level of organisation consists of all individuals of the same species. The total number of organisms of a particular plant or animal species on the Earth determines the population of that species.
Example: All human beings on the Earth form the population of the species of man.

Solution 2.b:

Ecosystem: The living and non-living factors interacting with each other in a habitat together form an ecosystem. The different kinds of ecosystems on the Earth are forest, lake, sea and river ecosystems.

Solution 2.c:

Community: The group of organisms of all the different species living together in a particular habitat is called a community. Several communities of various animals and plants may live together in any one habitat.

Solution 2.d:

Biosphere: The part of the atmosphere, hydrosphere and lithosphere occupied by living things is together called the biosphere. The biosphere is the highest level of organisation of living things. All living and non-living factors in the biosphere are dependent on each other.

Solution 3:

1. Cells are considered to be the fundamental units of the **structure** and **function** of living things.
2. The **structure** of living things is suited to their **functions**. This is called **organisation**.
3. We see **cellular** type of organisation in an amoeba.
4. The **aquatic** type of ecosystem can be seen in the water in a puddle.
5. In a forest ecosystem, the living constituents are **plants** and **animals**.

Solution 4: