

Diversity in the living Organisms

1. Why do we classify organisms?

Ans - On this earth we find a vast array of organisms. In order to understand the evolution and phylogenetic relationship of these organisms we need to categorise them. Without classifying them it is difficult to understand it properly.

2. Give three examples of the range of variations that you see in the life forms around you.

Ans → If we observe our surrounding we find *green velvety moss and huge gigantic trees.

* Snakes that creep on the ground and birds that fly in the sky

* Cockroach like insect and earthworm like organism.

On the above cited three examples show marked variation in characteristics.

3. Which do you think is a more basic characteristic for classifying organisms?

(a) Place where they live

(b) The kind of cells they are made of. Why?

Ans - Definitely, the kind of cells of which an organism is made is a more basic characteristic that forms the basis of classification. It is so, because the nature of the cell decides the characteristics differences.

4. What is the primary characteristic on which the broad division of

Ans → The prokaryotic & Eukaryotic nature of the cell is considered as primary characteristic. Presence and absence of cell wall is another primary characteristic which classified the organisms into Animalia.

Presence of chloroplast formed the basis to differentiate the organism into Fungi & Plantae.

5. On what basis are plants and animals put into different categories?

Ans → Organisms with multicellular body and body cells having Eukaryotic nature was categorised into Animalia if the organism had no cell wall around them. The remaining fraction having cell wall around the cells was considered as 'Fungi' and 'Plantae' on the basis of absence and presence of chloroplast in them respectively.

6. Which organisms are called Primitive and how are they different from the so-called advanced organisms?

Ans → The organisms having some most basic characteristics with respect to their body design, mode of nutrition etc and we might come across some speciality in structure and function due to the accumulation of variation in these characteristic features. Hence the former ones are treated as primitive whereas those with new features and variation are referred to as advanced ones.