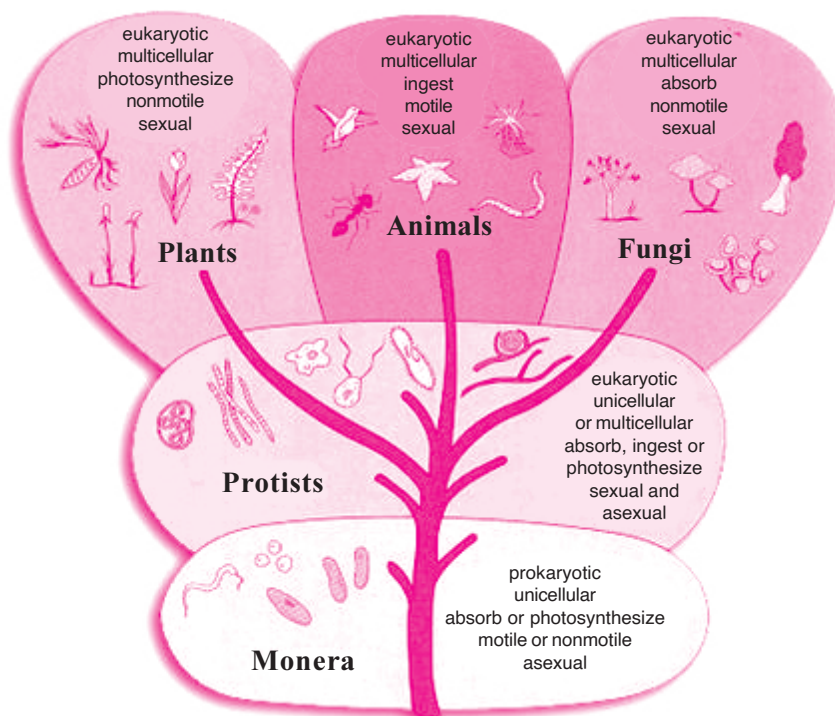
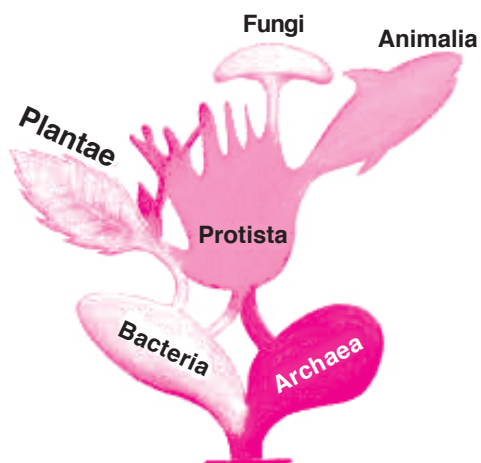


UNIT I: DIVERSITY IN THE LIVING WORLD

2. BIOLOGICAL CLASSIFICATION

1 SAQ [4M]

**Five Kingdom Classification****Six Kingdom Classification**

ROOT POINTS

1. **Biological classification** is the arrangement of organisms into groups on the basis of their similarities and dissimilarities and placing the groups in a hierarchy of categories.
2. **Categories of Groups:** Species, Genus, Family, Order, Class, Phylum, Kingdom.
3. **Linnaeus' two kingdom system:** Plantae and Animalia.
4. **Whittaker's five kingdom classification:** Monera, Protista, Fungi, Plantae and Animalia.
5. **Main criteria of five kingdom classification:** Cell structure, thallus organisation, mode of nutrition, reproduction and phylogenetic relations.
6. **Carl Woese's six kingdom classification:** Bacteria, Archaeobacteria, Protista, Fungi, Plantae and Animalia.
7. **Viroids** are infectious agents to plants whereas **viruses** are infectious agents to all organisms.
8. The **algal** component of lichen is called **phycobiont**. [IPE]
9. The **fungus** component of lichen is called **mycobiont**. [IPE]
10. **Euglenoids** belong to kingdom protista. They are a group of unicellular flagellate eukaryotes. [IPE]
11. **Dinoflagellates** belong to **Kingdom protista**. They are a group of flagellate eukaryotes. [IPE]
12. **Chrysophytes** belong to **Kingdom Plantae**. They are a group of **algae**. [IPE]
13. Viroids differ from viruses in having **RNA molecules without protein coat**. [NEET-2017]
14. DNA replication in bacteria occurs **prior to fission**. [NEET-2017]
15. **Glycocalyx** components provide sticky character to the bacterial cell. [NEET-2017]
16. **Archaeobacteria** are found in extreme saline conditions. [NEET-2017]
17. Methanogenes belong to **Archaeobacteria**. [NEET-2016]
18. Chrysophytes, Euglenoids, Dinoflagellates and Slime moulds protozoa are included in the Kingdom **Protista**. [NEET-2016]
19. One of the major components of cell wall of most fungi is **Chitin**. [NEET-2016]
20. Cell wall is absent in **Mycoplasma**. [NEET-2015]
21. The structures that help some bacteria to attach to rocks and/ or host tissues are **fimbriae**. [NEET-2015]
22. The imperfect fungi which are decomposers of litter and help in mineral cycling belong to **Deuteromycetes**. [NEET-2015]
23. True nucleus is absent in **Anabaena**. [NEET-2015]
24. The motile bacteria are able to move by **flagella**. [NEET-2014]
25. **Mesosomes** structures perform the function of mitochondria in bacteria. [NEET-2014]
26. **Viroids** have free RNA without protein coat. [NEET-2020]
27. **Cyanobacteria** are autotrophic, classified under kingdom **Monera**. [NEET-2022]
28. **Mode of Nutrition** is not a criterion for classification of **Fungi**. [NEET-2025]