

## Biology - FSC Part 1 Biology English Medium Chapter 7 Preparation

Q1. What are Dinoflagellates? Give example.

**Ans 1:** It is unusual protist phylum. Most of the Dinoflagellates are unicellular. Their cells are often covered with shells of interlocking cellulose plates impregnated with silicates. For example Ceratium and Gonyaulax.

Q2. Write down any two characteristics of protists.

**Ans 1:**

1. Protists are unicellular, colonial or simple multicellular organisms.
2. They possess a eukaryotic organization.

Q3. What are protists, how they differ from plants and animals?

**Ans 1:** The protists are unicellular, colonial or simple multicellular organisms that possess a eukaryotic organization. Unlike plants and animals, protists do not develop from a blastula or embryo.

Q4. On what principle are protists classified together?

**Ans 1:**

- Size and structure
- Means of locomotion
- Habitat
- Modes of reproduction
- Ways of obtaining nutrition

Q5. How do ciliates differ from other protozoans?

**Ans 1:** Ciliates differ from other protozoans because they have a covering called pellicle and two nuclei. One is called macronucleus and the other is called micronucleus.

Q6. How do algae differ from plants?

**Ans 1:** Plants: Reproductive organs are multicellular. Embryo formation occurs. Plants are different in their roots, stems and leaves with xylem and phloem.

**Ans 2:** Algae: Reproductive organs of algae are unicellular. Embryo formation is absent in algae. Plant body is thallus-like.

Q7. Why pelomyxa palustris may be the most primitive off all eukaryotic like forms?

**Ans 1:** The giant amoeba *Pelomyxa palustris* may be the most primitive eukaryote. This species has multiple membrane bounded nuclei but none of the other organelles found in all other eukaryotes, The giant amoeba obtains energy from methanogenic bacteria, which reside inside them.

---

Q8. Highlight evolutionary significance of euglenoids.

**Ans 1:** Euglenoids and dinoflagellates are one of the most important group of organisms in marine ecosystem. They also cause red tides.

---

Q9. Give two characteristics of ciliates.

**Ans 1:** They are unicellular organisms with a flexible outer covering called a pellicle that gives them a definite shape but changeable shape. Paramecium is one of the most complex ciliate. In paramecium the surface of the cell is covered with several thousands fine, short hairs like structure called cilia.

---

Q10. Differentiate between Pseudopodia and Flagella.

**Ans 1:** Pseudopodia : Amoeba move by forming specialized cytoplasmic projections called pseudopodia.

**Ans 2:** Flagella: These are extremely thin, hair like appendages. Their function is motility in bacteria and zooflagellates.

---