Phylum : PROTOZOA( unicellular protist animals)

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**General characters**:

The protozoan’s constitute a large as semblance of microscopic, unicellular organism. These organisms exhibit all sorts of symmetry; so varies moods of nutrition and have diverse life history. Some are autotrophic; others are heterotrophic including saprozoic, phago trophic or holozoic protozoa. They may be free living or mutualistic or commensalism or parasite. They do not have tissue or organ, rather they have specialized organelle and possess one of many nucleic. They are aquatic (freshwater and marine) and cosmopolitan in distribution

Protozoans is a group of animal’s protists of more than 50,000 species and are found under almost all natural conditions where there is moisture. The general characters are:

1. The protozoa are microscopic animalcules, ordinarily not visible without a microscope.

2. Protozoa are microscopic, a cellular without tissues and organs, having one or more nuclei.

3. The protozoan is very primitive with protoplasmic grade of organism.

4. Body symmetry non radial, spherical or bilateral.

5. locomotors organs are absent in the parasitic forms(sporozoa).

6. They are microscopic organisms in which a single cell performs all the vital activities.

7. Body naked or bounded by a pellicle. Sometimes an exoskeleton is also present

8. The shape of the body is usually constant but in some cases it is unstable and in other it may change with the environment or age.

9. Locomotors organelles are cilia, flagella or pseudopodia.

10. They exhibit varied modes of nutrition: some are autotrophic (chlorophyll bearing flagellates) and others are heterotrophic including the saprozoic, phagotrophic or holozoic protozoa.

10. No specific respiratory and excretory organs are present.

 11. Reproduction asexually binary fission, multiple fission or budding and sexual reproduction by conjugation or by fusion of gametes (syngamy)

11. Life history is often complicated in some cases with alternation of asexual and sexual phages.

12. contractile vacuole is found in almost all fresh water protozoan’s for maintenances of osmotic concentrations of the cell body, the phenomenon is known as osmoregulation.