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Amoeba, Euglena & Paramecium

Phylum - Protozoa

Amoeba :-

⇒ Amoeba lives in fresh water ponds & streams.

⇒ Irregular in shape.

⇒ Size about 0.25 mm in diameter.

⇒ Thin & elastic plasma membrane.

⇒ Ectoplasm clear and non granular compared to cytoplasmic endoplasmic differentiation.

⇒ Grains of sand or granules which are proteins and fat in nature. Single round contractile vacuole, food vacuoles and water vacuoles.

⇒ Nucleus are single lodged centrally in the endoplasm.

⇒ Finger like projections, called pseudopodia, movement is called Amoeboid movement.

⇒ Holozoic diet, bacteria, small protozoa serve as food. food is digested in temporary food-vacuoles. Undigested food particles are through out.

⇒ Respiration by  $O_2$  dissolved in water enters the body by diffusion.

⇒ Reproduction by binary fission is the usual mode. Cyst formation in unfavourable condition.

=> Excretion - Large part of excretory matters in the form of Urea and CO<sub>2</sub> Pass out through general body surface.

=> Response to stimuli - React to various kinds of stimuli - namely Contact, heat electricity, light, Chemicals, etc.

Euglena :-

Euglena lives in freshwater ponds and streams and prefers to stay in surface water. Fixed, spindle-shaped, anterior end broad & posterior pointed in shape.

40 - 65 μ along the long axis in size.

=> Pellicle - thin, elastic and bears parallel thickening running obliquely the limiting membrane.

=> Cytoplasmic differentiation is ectoplasm is less dense than the endoplasm.

=> Organelle - stored reserve includes lipid and paramylum, chlorophyll bearing, chromatophores. of variable sizes and number. Cytostome funnel-shaped and situated at the anterior end, a gullet joins it to a reservoir in to which opens minute contractile vacuoles. food vacuole usually absent, a single active flagellum and stigma.

=> Nucleus - single oval nucleus situated a little below the middle line of the body

## Paramecium

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Swims in water in zig-zag fashion with the concerted beating of cilia.

⇒ Nutrition: - Holozoic, the cilia help in drawing in food particles in the gullet. digestion in temporary food vacuole. Presence of cytophyge or temporary cell- anus for egestion.

⇒ Respiration: -  $O_2$  dissolved in water enters the body by diffusion (same to Amoeba)

⇒ Excretion -  $CO_2$ , Urea passes out through general body surface.

⇒ Reproduction: - Asexual reproduction by transverse binary fission, sexual reproduction by conjugation. No cyst formation

⇒ React to various kinds of stimuli

The end.