

3) *Chlamydomonas* represents the unicellular and mobile forms of green algae. Found in stagnant water usually along with other forms. Flagella are the structures for mobility.

The cell is bounded by a cellulose cell wall; contains organelles eg. nucleus, mitochondria etc.

4) *Chlamydomonas* undergoes both sexual and asexual reproduction, the *Chlamydomonas* loses its flagella. It then undergoes mitotic division and gives rise to the nuclei, within elaborated cell wall. This delimits the cytoplasm around the nuclei and two daughter cells are released.

In sexual reproduction, the cell is usually under unfavorable conditions. The haploid daughter cells do not form spores in this case, they form gametes that have two different mating strains, which although structurally similar, are either positive or negative. Fusion of opposite mating strains (isogamy) occurs. This gives a diploid zygote with two sets of chromosomes. After a period of dormancy, meiosis occurs and four haploid daughter cells are produced.

	<u>Pandorina</u>	<u>Volvox</u>
1)	It has 16 daughter cells	It has numerous daughter cells
2)	It does not have cells differentiated for reproduction	It has cells (gonidia) differentiated for reproduction
3)	Sexual reproduction is anisogamous	Sexual reproduction is oogamous

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Division	Class
1) Thallophyta	Phycotinae (Algae) Mycotinae (Fungi)
2) Bryophyta	Hepaticeae (Liverworts) Musci (Mosses)
3) Pteridophyta	Psilotinae (Psilotum) Lycopodiinae (Lycopodium, Selaginella) Equisetinae (Horse tails) Filicinae (Ferns)
4) Spermatophyta	Gymnospermae (Gymnosperms) Angiospermae (Angiosperms)

2a) Algae are considered nutritious because of their high protein content and high concentration of minerals. They also have high iodine content and therefore prevent goitre.

b) Seaweeds are sources of three chemical extracts used in the food pharmaceutical, textile and cosmetic industry.

c) Algae have been used in centuries, especially by Asians for their power to ~~cure~~^{cure} or prevent illness eg. cough, goiter etc.

d) Different species of red algae provide agar and carrageenan used for the preparation of various gels used in scientific

6 Fucus is a genus of a brown coloured algae, that is often found on rocks in the intertidal zones of the sea shores. Its body is flattened, and it has dichotomously branched thallus with a mid rib, a vegetative apex and a multicellular disc, which is also known as a hold fast. The hold fast is useful for securing it to the rock surface. In addition, the plant body has air bladders which help to keep the plant afloat in water. During maturity the vegetative apex becomes the reproductive apex.