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Bio 102 Assignment

1) Eichler's grouping of 1883:

Division	CLASS
Thallophyta	Phycotinae (Algae) Mycotinae (Fungi)
Bryophyta	Hepaticae (Liverworts) Musci (Mosses)
Pteridophyta	Psilotinae (Psilotum) Lycopodiinae (Lycopodium, Selaginella) Equisetinae (Horsetails) Filicinae (Ferns)
Spermatophyta	Gymnospermae (Gymnosperms) Angiospermae (Angiosperms)

2) Importance of Algae to man:

- It serves as food for people and livestock.
- It serves as thickening agent in shampoo and ice cream.
- It serves as drugs to ward off diseases.

3) Chlamydomonas represents the unicellular and motile 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; containing organelles. They can reproduce both ~~sexually~~ and asexually (vegetative) and sexually (fusion i.e. isogamy).

4) They reproduce either ^{vegetatively} sexually or (bisexually). They reproduce asexually by mitotic division and the daughter cells are called ZOOSPORES. Parent is haploid (n) as well as daughters. They reproduce sexually by fusion in a process called ISOGAMY to form diploid zygote ($2n$). The zygote then undergoes meiosis to produce four haploid (n) daughter cells that eventually grow into mature cells.

5)	PANDORINA	VOLVOX
i)	Consists of 16 cells	More cells in the colony upto thousands
ii)	Each of the cells form colonies	Not all cells, only ZONIDIA form new colonies
(ii)	lower level of differentiation and specialization	Higher level and more advanced.

6) Fucus is the named complex form of ^{br}algae ~~whose~~ brown algae whose species are often found on rocks in the intertidal zones of the sea shores. The plant body is flattened, dichotomously-branched thallus with a mid-rib, a vegetative apex, a reproductive apex at maturity and multicellular disc (hold fast) with which plant is attached to rock surface.