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| DIVISION | CLASS |
| 1. Thallophyta | Phycotinae[algae], Mycotinae[fungi] |
| 1. Bryophyta | Hepaticae[liverworts], Musci[mosses] |
| 1. Pteridophyta | psilatinate[psilotum], lycopodinae[lycopodiom,selaginella] Equisetinae[horsetails]. Filicinae[ferns] |
| 1. Spermatophyta | Gymnospermae{gymnosperms}, Angiospermae{Agiosperms} |

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1. IMPORTANCE OF ALGAE TO MAN
2. Different species of red algae provides agar and carrageen used for the preparation of several gels used for scientific purposes.
3. Certain species of algae is harvested for food and cosmetics in the far east.
4. Algae have high iodine content thereby preventing goitre.
5. Brown algaes yield certain subs tances which can be used to stabilize emulsion and suspension.
6. UNICELLULAR FORM OF AN ALGAE

Chlamydomonas represents the unicellular form of green algae. It is found in stagnant water usually with other forms. Flagella are the structures for mobility. The cell is bounded by a cellulose cell wall, contains organelle, e.g, nucleus, mitochondria, stigma (eye spot), cup-shaped chloroplast, pyrenoid, e.t.c. The nucleus carries the genetic programme of the cell. The stigma is for photoreception. The mitochondria mediate the elaboration of energy molecules. The pyrenoid processes manufactured sugar in starch.

1. The clamydomonas carries out its reproduction either asexually or sexually.

Vegetative reproduction results in the production of daughter cells inwhich the amount and quantity of the genetic materials in the nucleus in the nucleus of the mother cell is maintained in the daughter cell. The kind of cell division which maintains the quantity and quality of genetic material is called the meiotic division. In clamydomonas, a cell about to divide loses its flagella. The cell undergo meiotic division which gives rise to two nuclei, cell wall are elaborated with distinct cytoplasm around each nucleus.

For sexual reproduction in chlamydomonas, it starts with the aggregation of cells in a colony under favorable conditions. The cells pair by their posterior[flagellated] end. The cytoplasm of the paring cells fuse and the flagellate are lost. The two nuclei fuse to form a single cell with 2n nuclear material. The zygote secretes thick cell wall and it may remain dormant for sometime. The cell wall is called the zygospore. After, karyogamy sometimes , the zygote undergoes two successive cell divisions to release products known as haploid zoospores



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| Panderina | Volvox |
| 1. Has lesser cells in the colony than the volvox. | Has more cells in the colony than the panderina. |
| 1. Presence of flagellated ends. | Absence of flagellated ends. |
| 1. Shows lower levels of differentiation and specialization. | Shows greater levels of differentiation and specialization. |
| 1. It is evolutionary less advanced than volvox. | It is evolutionary more advanced than the panderina. |

6.FUCUS

A genus of brown algae whose species a commonly 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 and a multicellular disk with which plant is attached to rock surface. The plant body also has air bladders to enable it float on the water. Sexual reproduction is oogamous. Sex cells are produced in the conceptacles which have opening on the surface of the thallus. Various species of Fucus exist, vary in sizes from a few centimeters tom about 2 meters in size.