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1. A system of plant taxonomy, the Eichler system was the first phylogenic (phyletic) or evolutionary system. He gave system of classification for the whole plant kingdom. Eichler classified the plant kingdom into two sub-kingdom. They are Cryptogamae and Phanerogamae.
2. Cryptogamae are flowerless and seedless plants. They are simple and flowerless plants like algae, mosses and ferns which do not produce flowers, fruits and seeds. Cryptogamae are referred to as lower plants.
3. Phanerogamae are seed bearing plants. So they are also known as spermatophytes. They are higher plants. The plant body is differentiated into roots, stems and leaves with well developed vascular system. Examples are angiosperms and gymnosperms.
4. Importance of algae to man
5. Direct use of algae as food for man.
6. As a source of agar in the production of ice cream, jellies, desserts etc
7. Medicines and minerals.
8. Manufacture of iodine
9. Alginic acid, align and mannitol which is used in the production of dyes, buttons and combs
10. Manufacture of soaps and alums
11. Used as fertilizer
12. Ornamental uses
13. Unicellular forms of algae are also called acellular algae as they function as complete living organisms. Unicellular forms are common in all the groups of algae except Rhydophycae, Phyaeophycae and Charophycae. The unicells may be motile or non motile.
14. Cell division or fission is the simplest method of reproduction for the unicellular forms of algae. It is often called binary fission as found in chlamydomonas. In this method, the two vegetative cells divide mitotically into two daughter cells, those finally divide into new individuals. Reproduction is asexual.
15. Difference between volvox and synura

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| S/N | Volvox | Synura |
| 1. | Reproduction is both sexual and asexual | Reproduction is sexual |
| 2. | Spherical colonies of up to 50,000 cells | Few cells in colonies |

1. Spirogyra is a filamentous charophyte green algae of the order of zypementales, named for the helical or spinal arrangement of the chloroplasts that is characteristics of the genus. It is commonly found in fresh water habitats, and there are more than 400 species of spirogyra in the world.