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Department: - Pharmacy

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Course: - Biology

Assignment

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 into two sub-kingdoms. They are cryptogamae and phanerogamae.

{A} All cryptogamae are flowerless and seedless plants. They are simple and flowerless plants like algae, mosses and ferns which do not produce flowers, fruits or seeds. Cryptogams are considered as lower plants.

{B}Phanerogamme are seed bearing plants, so they are also known as spermatophytes. They are higher plants. The plant body is differentiated into roots, stem and leaves with well-developed vascular systems. Examples are angiosperms and gymnosperms.

1. Importance of algae to man:-
* Algae can serve as food for man
* Medicines and minerals
* Manufacture of Iodine
* Used as fertilizers
* Manufacture of soaps and alum
1. Unicellular forms of algae are also called acellular algae as they function as complete living organisms. Unicellular forms are common in all groups of algae except rhydophycease, phyaeophycaea and charophyceae.The unicells may be motile or non- motile.
2. 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 chlamydominas.In this method the two vegetative cells divides mitotically into two daughter cells, those finally divide to give new individuals. There reproduction is asexual.
3. Differences between volvox and synura

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| --- | --- |
| 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 characteristic of the genus.It is commonly found in freshwater habitats, and there are more than 400 species of spirogyra in the world.