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PHARMACY

BIO 102

1. A system of plant taxonomy, which is 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-kingdoms. They are Cyptogamae and Phanerogamae.
2. Cyptogamae are seedless and flowerless plants. They are simple and flowerless plants like algae, mosses and ferns which do not produce flowers, fruits and seeds. Cryptogams are considered as lower plants.
3. 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 system. Examples are angiosperms and gymnosperms.
4. Importance of algae to man includes:
5. Algae is used in the manufacture of iodine
6. Algae is used as a fertilizer
7. It is used in the manufacture of soaps and alums
8. It is used in the manufacture of medicines
9. It is used as a source of agar in the production of ice cream, jellies, desserts.
10. Algae is a source of alginic acid, align and mannitol which is used in the production of dyes, buttons and combs.
11. Direct use of algae as food for man
12. Algae are also useful for ornaments.
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 Rhydophyceae, Phyaeophycaea and Charophyceae. 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 as new individuals. Their reproduction is asexual.
15. Differences between Volvox and Synura

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| VOLVOX | SYNURA |
| 1. Reproduction is both asexual and sexual
 | 1. Reproduction is sexual
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| 1. Spherical colonies of up to 50,000 cells
 | 1. Few cells in colonies
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1. Spirogyra is filamentous charophyte green algae of the order of Zygementales, named for the helical or spiral arrangement of the chloroplasts that is a characteristic of the genus. It is commonly found in freshwater habitats and there are more than 400 species of spirogyra in the world.