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#### 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. Eichler classified the plant kingdom into two sub-kingdom. They are Cryptogamae and Phanerogamae.

A] Cyptogamae are flowerless and seedless 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.

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 system. Examples are angiosperms and gymnosperms.

2.Importance of algae to man.

- A) Direct use of algae as food for man.
- B) As a source of agar in the production of icecream, jellies, desserts etc.
- C) Medicines and minerals
- D) Manufacture of iodine
- E) Alginic acid, align and mannitol which is used in the production of dyes, buttons and combs
- F) Manufacture of soaps and alums
- G) Used as fertilizer
- H) Ornamental uses

3.Unicellular form of algae are also called a cellular algae as they function as complete living organisms. Unicellular forms are common in all the groups of algae except Rhydophyceae, Phyaephycaea and Charophyceae.The unicells may be motile or non-motile.

4. 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 divided are new individuals. The reproduction is asexual.

5. Difference between *Volvox* and *Synura*

**VOLVOX**

- Spherical colonies of up to 50,000 cells
- Reproduction is both sexual and asexual

**SYNURA**

- Few cells in colonies
- Reproduction is sexual

6. *Spirogyra* is a filamentous charophyte green algae of the order of Zygomatales, named for the helical or spiral arrangement of the chloroplasts that is a characteristic of the genus. It is commonly found in fresh water habitats, and there are more than 400 species of *Spirogyra* in the world.