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DEPARTMENT: Dentistry

MATRIC NUMBER: 19/MHS09/004

COURSE: BIO102

ASSIGNMENT

1. In 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-kingdoms. They are; Cryptogamae and Phanerogamae.
 - I. Cyptogamea: They 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 also considered as lower plants.
 - II. Phanerogamea: They are seed bearing plants. They are also known as **SPERMATOPHYTES**. They are considered as higher plants. The plant body is differentiated into roots, stems, leaves with well-developed vascular system. Examples are; angiosperm, gymnosperm.

2. Algae is important to man in the following ways;
 - I. Algae serve as food for man
 - II. Medicine and minerals
 - III. As a source of agar in the protection of ice cream, jellies, desserts
 - IV. Manufacturing of iodine

V. Used as fertilizers

VI. Used as ornaments

VII. Used in the manufacturing of soaps and detergents.

3. Unicellular form of algae, also known as **ACELLULAR ALGAE** as they function as complete living organisms are autotrophs, unicells may be motile or non-motile, found in stagnant. Unicellular forms are common in all groups of algae except Rhodophyceae, Phaeophyceae and Charophyceae.

4. Cell division or fission is the simplest method of reproduction for the unicellular forms of algae, it is also known as **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. Their reproduction is asexual.

5. Differences between Volvox and Synura;

I. Reproduction in Volvox is both sexual and asexual, while reproduction in Synura is sexual.

II. Volvox has spherical cells of up to 50,000 cells while Synura has few cells in colonies.

6. Spirogyra is filamentous charophyte green algae of order of Zygementales, named for the helical or spiral arrangement of 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.