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Pharmacy

BIO 102

1). Eichler classified the plant kingdom into two sub-kingdoms. They are Cryptogamae and Phanerogamae.

a. The Cryptogamae are flowerless and seedless plants. They are simple and flowerless plants like algae, ferns and mosses which do not produce flowers, fruits or seeds.

Cryptogams are considered as lower plants.

b. Phanerogamae are seed bearing plants. They are also known as spermatophytes.

They are higher plants the body of the plants is differentiated into roots, stems and leaves with well developed vascular system. Eg. Angiosperms and Gymnosperms.

2). Importance of algae to man:

- a. Directly used as food
- b. Source of agar in the production of jellies, ice cream and some desserts
- c. It's often used as fertilizer
- d. It has ornamental uses
- e. Used to manufacture soups
- f. Used to manufacture iodine

3). Unicellular form of algae is also called acellular algae

as they function as complete living organisms. Unicellular forms are common in all groups of algae except Rhodophyceae, Phaeophyceae and Charophyceae. The unicells may be motile or non-motile. Unicellular algae are plant-like autotrophs and contain chlorophyll. They include groups that have both multicellular and unicellular species: Euglenophyta, flagellated, mostly unicellular algae that occur often in fresh water.

4). Cell division or fission is the simplest method of reproduction for the unicellular forms of algae it's often called binary fission as found in *Chlamydomonas*. In

this method, the two vegetative cells divide mitotically into two daughter cells. These cells later grow and become individual cells of their own.

5). Difference between Volvox and Synura:

<b>Volvox</b>	<b>Scenedesmus</b>
Reproduction is both sexual and asexual	Reproduction is by non-motile spores called autospores
They move (motile)	They don't move (non-motile)

6). Spirogyra is a

filamentous Charophyte green algae of the order of zypementales, named for spinal arrangement of the chloroplasts that is a characteristic of the genus. It's commonly found in fresh water habitats, and there are more than 400 species of it on earth.