

NAME: UGHOVERO PRECIOUS EFEZINO

COURSE: BIO 102

DEPARTMENT: PHARMACY

MATRIC NO: 19/MHS11/142

BIO 102 ASSIGNMENT

1. A system of plant taxonomy, the Eichler system was the first phylogenetic (phyletic) or evolutionary system. He gave a system of classification for the whole plant kingdom. Eichler classified the plant kingdom into sub-kingdoms. They are cryptogamae and Phanerogamae.

a) cryptogamae are flowerless and seedless plants. They are simple and flowerless plants like algae, mosses and ferns which do not produce flowers, fruits and seeds. cryptogamae are considered as lower plants.

b) phanerogamae 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 a 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) medicines and minerals

- c) manufacture of iodine
- d) manufacture of soaps and alums
- e) used as fertilizers
- f) ornamental uses

3. Unicellular form 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 rhodophyceae, phaeophyceae 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 in it is often called binary fission as found in Chlamydomonas. In this method the two vegetative cells divide mitotically into two daughter cells, these finally divide as new individuals. Their reproduction is asexual.

5. Difference between Volvox and Synura

VOLVOX

- a) Reproduction is both asexual and sexual
- b) spherical colonies of up to 50,000 cells

SYNURA

- a) reproduction is sexual
- b) few cells in colonies

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