**NAME: FEHINTOLA OLAJUMOKE STELLA**

**MATRIC NO. : 19/MHS11/064**

**DEPARTMENT: PHARMACY**

**COURSE CODE: BIO 102**

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. Cryptogamae are seedless and flowerless plants. They are simple and flowerless plants like algae, mosses and ferns that do not produce flowers, fruits and seeds. Cryptogams are considered as lower plants. Phanerogamae are seed bearing plants. They are also known as SPERMATOPHYTES. They are higher plants. The plants body is differentiated into roots, stem and leaves with well developed vascular system. Examples are angiosperms and gymnosperms.

2. IMPORTANCE OF ALGAE

i. They prevent goiter because of their high iodine content.

ii. It is used as fertilizer.

iii. Used in the manufacture of soaps and alums.

iv. It is also used for ornamental purposes.

v. Used to manufacture of medicine and drugs.

vi. They serve as food for man.

3. Unicellular form of algae are also called acellular algaes. They function as complete living organisms. Unicellular forms are common in all the groups of algae except Rhydophyceae, Phyaeophycaea and Charophyceae. The unicellular algae may be motile or non-motile. Example of a unicellular form of algae is CHLAMYDOMONAS. They are found in stagnant water usually along with other forms. Flagella are the structure for mobility and bounded by a cellulose cell wall. They contain oragnelles like nucleus, mitochondria, stigma, cup-shaped chloroplast, pyrenoid and so on.

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. Reproduction in Chlamydomonas is by sexual or asexual reproduction.

5. COLONIAL FORMS OF ALGAE, VOLVOX AND PANDORINA.

Difference: Pandorina colony consist of 16 cells attached to one another. While Volvox possess up to thousands of cells connected with cytoplasmic strands that runs through the cells.

6. Spirogyra is a filamentous charophyte green algae of the order of zypementales, 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.