NAME: GIWA ESTHER TITILAYO

MATRIC NO: 19/MHS01/178 COURSE TITLE: BIO 102.

Eichler's grouping of 1883 is classified below:

DIVISION CLASS

Thallophyta Phycotinae (Algae)

Mycotinae (Fungi)

Bryophyta Hepaticae (Liverworts)

Musci (Mosses)

Pteridophyta Psilotinae (Psilotum)

Lycopodinae (Lycopodium, Selaginella)

Equisetinae (Horsetails)

Filicinae (Ferns)

Spermatophyta Gymnospermae (Gymnosperms)

Angiospermae (Angiosperms)

Algae is important to man in the following ways:

- -They serve as food to man and livestock.
- -Thickening agents in ice cream and shampoo.
- -they are in drugs to ward off diseases.
- -they contain high source of protein and iodine and therefore prevent goitre.
- -it has been used to cure or prevent illness.

THE UNICELLULAR FORM OF ALGAE

Chlamydomonas is an example of the unicellular form of an algae.

It is found in stagnant water.

They possess flagella for mobility.

Their cell is bounded by a cellulose wall which contains organelles. e.g mitochondria, stigma, chloroplast, nucleus.

The nucleus carries genetic programme of the cell.

The stigma is for photoreception.

The mitochondrion mediate the elaboration of energy molecules.

They reproduce either sexually or asexually.

Unicellular algae reproduce sexually or asexually.

Asexually mitosis is involved.

Sexually involves the union of sex cells.

Differences between the colonial form of pandorina and volvox.

Pandorina

It consists of 16 cells attached to one another by cytoplasmic strands.

Sexual reproduction is anisogamous.

Plasmogamy and karyogamy occur before meiosis take place.

The colony may unisexual or bisexual.

Volvox

There are more cells in the colony, number may run into thousands and connected with cytoplasmic strands that run through the cells.

Sexual reproduction is oogamous.

Egg is immotile and sperms are formed by the repeated division of cells in the colony to form motile sperm platelets which move to egg colonies where fertilization takes place.

The colony may be unisexual or bisexual.

- -Fucus is an example of the complex form of algae.
- -Their cells are differentiated to perform various functions.
- -They are found on rocks in the intertidal zones of the sea shores.
- -Their body is flattened, dichotomously-branched thallus with a midrib, a vegetative apex, and a multicellular disk with which it is attached to rock surface.
- -It also has air bladders which aid the plant to float on the water.
- -They vary in size from a few centimetres to about 2metres in length.
- -They also vary in terms of whether the sex cells are found in the same sexual chamber or in different sexual chambers on different plant bodies.
- -Sexual reproduction is oogamous, sex cells are produced in conceptacles which have openings(ostioles) on the surface of the thallus.
- -It undergoes meiosis.