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**DEPARTMENT: MEDICAL LABORATORY SCIENCE**

**MATRIC NO: 19/MHS06/006**

**COURSE CODE: BIO 102**

ASSIGNMENT

1. Eichler's grouping of 1883

DIVISION	CLASS
<u>Thallophyta</u>	<u>Phycotinae (Algae)</u> <u>Mycotinae (Fungi)</u>
<u>Bryophyta</u>	<u>Hepaticae (Liverworts)</u> <u>Musci (mosses)</u>
<u>Pteridopyhta</u>	<u>Psilotinae (Psilotum)</u> <u>Lycopodinae (Lycopodinae, Selaginella)</u> <u>Equisetinae (Horsetails)</u> <u>Filicinae (Ferns)</u>
<u>Spermatophyta</u>	<u>Gymnospermae (Gymnosperms)</u> <u>Angiospermae (Angiosperms)</u>

2. IMPORTANCE OF ALGAE TO MAN

It serves as thickening agents in ice cream and shampoo.

Alginic acid from the brown algae is used to stabilize emulsions and suspensions.

It's contains high iodine content which prevents goitre.

It serves as food for people.

It is used as fertilizers.

It serves as ornamental use.

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 Rhydropycheae, Phyaephyceae and Charophyceae. The unicells maybe motile or non-motile. The stigma is for photoreception.

4. HOW UNICELLULAR ALGA CARRIES OUT IT REPRODUCTION;

Reproduction can either be vegetative(asexual) or sexual

-)Vegetative results in the production of daughter cells in which the amount and quality of genetic material in the mother cell is maintained in the daughter cells. The amount of genetic cell material in the mother cell nucleus of  $n$ , the daughter cells also have an  $n$  quantity of genetic material. The mitotic division maintains the quality and quantity of genetic material.

-)Sexual reproduction involves union of sex cell, aggregation of cells in a colony occurs under favourable conditions. These cells pair by their posterior end. This pairing is said to be isogamous because the pairing cells(gametes) are morphologically identical.

5. DIFFERENCE BETWEEN THE TWO TYPES OF COLONIAL FORM OF ALGAE

VOLVOX	PANDORINA
A. Sexual reproduction is anisogamous.	Sexual reproduction is oogamous.
B. It is a genus of green algae.	It is a complex form of pandorina.

6. DESCRIBE A NAMED COMPLEX FORM OF ALGA

Fucus- it's a genus of the brown algae whose species are found on rocks in the intertidal zones of the seashores. The body of the plant is flattened, dichotomously- branched thallus with a mid-rib, a vegetative apex and a multicellular disc with which plant is attached to rock surface. The body has air bladders which is believed to aid the plant to float on the water. It varies in size from a few centimetres to about 2meters in length.

Sexual reproduction is oogamous, sex cells are produced in conceptacles which have openings (ostioles) on the surface of the thallus.