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DEPT.: MBBS

MATRIC. NO: 19/MHS01/197

COLLEGE: MHS

ASSIGNMENT

1. Eichler’s Grouping of 1883

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| Division | Class |
| Thallophyta | Phycotinae (Algae).  Mycotinae (Fungi). |
| Bryophyta | Hepaticae (Liverworts).  Musci (Mosses). |
| Pteridophyta | Psilotinate (psilotum).  Lycopodinae (lycopodium, selaginella).  Equisetinae ( Horsetails )  Filicinae ( ferns ) |
| Spermatophyta | Gymnospermae ( Gymnosperms)  Angiospermae ( Angiosperms ) |
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1. Importance of Algae to Man

* It serves as food for people.
* The red Algae provide agar and carrageen used for preparation of various gels used for specific research.
* It contains high iodine content which prevents goiter.
* It serves as thickening agent in ice cream and shampoo.
* Alginic acid from the brown Algae is used to stabilize emulsions and suspensions

1. Unicellular Form of Algae

Chlamydomonas represents the unicellular and module form of green Algae.

It is found in stagnant water.

It has a flagella which enables movement.

The cell is bounded by a cellulose cell wall.

The stigma is for photoreception.

1. Reproduction in the Unicellular Form of Algae

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 nucleus of the mother cell is maintained in the daughter cells. The amount of genetic material in the mother cell nucleus of n, the daughter cells also have n quantity of genetic material. The mitotic division maintains the quality and quantity of genetic material.

Sexual reproduction

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

1. The colonial forms in Algae

* Pandorina
* Volvox

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| --- | --- |
| Pandorina | Volvox |
| Sexual reproduction is anisogamous | Sexual reproduction is oogamous |
| Unicellular motile thallus | Multicellular motile thallus |
| It’s a genus of green Algae | It’s complex form of pandorina |

1. Complex form in Algae

FUCUS

It’s a genus of the brown Algae whose species are found on rocks in the intertidal zones of the sea shores. The body of the plant id flattened, dichotomously-branched thallus with a mid-rib, a vegetative apex and multicellular disk 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 centimeters 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.