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DEPARTMENT: MBBS

MATRIC NO: 19/MHS01/106

1. Eichler’s grouping

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| DIVSION | CLASS |
| Thallophyta | Phycotinae ( Algae)  Mycotinae ( fungi) |
| Bryophyta | Hepatica (liverworts)  Musci(Mosses) |
| Pteridophyta | Psilotimate (Psilotum)  Lycopodinae ( Lycopodium )  Selginella  Equisetinae(Horsetails)  Filicinae( Ferns) |
| Spermatophyta | Gymnospermae  (Gymnosperms)  Angiospermae  (Angiosperms) |

1. IMPORTANCE OF ALGAE TO MAN

1)It serves as food to man

2)The large brown and red algae are used as organic fertilizers

3)It acts as an important binding agent on the surface of the soil

4)Alaria was used for strengthening the stomach and restoring the appetite after sickness

5)It contains high iodine content which prevents goiter

1. UNICELLULAR FORM OF ALGAE

Chlamydomonas represents the unicellular and module form of green algae

It’s found in slow/stagnant water

It has flagella for locomotion

The cell is bounded by a cellulose cell wall

It has a stigma which acts as a photoreceptor

1. REPRODUCTION OF CHLAMYDOMONAS

Reproduction in chlamydomonas can either be asexual or sexual

Asexual reproduction: vegetative reproduction gives a result of daughter cells in which they 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 parent cell is the equal amount of the genetic material I’m the daughter cell. The mitotic division maintains the quality and quantity of genetic material

Sexual reproduction: it involves the union of sex cells, aggregation of cells in a colony occurs under favorable conditions. These cells pair by their posterior end. This pairing is said to be isogamous because the pairing cells are morphologically identical.

1. THE COLONIAL FORMS OF ALGAE

PANDORINA AND VOLVOX

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| --- | --- |
| PANDORINA | VOLVOX |
| Sexual reproduction is anisogamous | Sexual reproduction is isogamous |
| Unicellular motile thallus | Multicellular motile thallus |
| It’s a genus of green algae | It’s complex form of pandorina |

1. COMPLEX FORM OF ALGAE

FUCUS:

It is a genus of brown algae found in the intertidal zones of rocky seashores almost throughout the world. The body of the plant is flattened, dichotomously-branched thallus with a mid rib, a vegetative apex and a 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 water. It varies in size from a few centimeters to about 2 metres in length.

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