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### 1. Classification of plants according to Elehler's grouping of 1833.

Division	Class
Thallophyta	Phycinae (Algae), Mycetozoa (Fungi)
Bryophyta	Hepaticea (Liverworts), Musci (Mosses)
Pteridophyta	Psilotinae (Psilots), Lyco-podiinae
	Equisetinae (horse tails), Filicinae (Ferns)
Spermatophytes	Gymnospermae, Angiospermae

### 2. Importance of algae to man include:

- a. Source of food for fish and livestock.
- b. Algae is used in cosmetics.
- c. Algae is nutritious as it has high trace elements.
- d. Algae can be used to ward off diseases.
- e. It has chemicals used in pharmaceuticals.

### 3. Description of a unicellular form of Algae

- a. It is motile.
- b. It is found in stagnant water.
- c. It has two flagella for mobility.
- d. It has a cellulose cell wall and contains organelles.
- e. It can reproduce either sexually or asexually (Carry by vegetative reproduction).
- f. They possess eyespot, chloroplast and nucleus.

### 4. It carries out its reproduction by either vegetative (asexual) reproduction or by sexual reproduction.

- a. In vegetative (asexual) reproduction, the cell divides mitotically to produce two identical daughter cells called zoospores.
- b. In sexual reproduction, caused by lack of nutrients or certain

environmental conditions, the gametes are produced instead of spores which then fuse (together) in a process called isogamy to form a zygote which divides via meiosis to form four haploid daughter cells.

5. Difference between the two types of colonial form of Algae

Pandering	Volvox
a. It has 16 cells in the colony.	It has thousands of cells.
b. It is less complex	It is more complex
c. All its cells undergo division.	Not all its cells undergo division.
d. Sexual reproduction is Anisogamous.	Sexual reproduction is Oogamous.

6. Fucus

- a. It is a genus of brown algae.
- b. It is often found on rocks in the intertidal zones of the sea.
- c. Its plant body is a flattened, dichotomously-branched thallus.
- d. Its plant body has air bladders.
- e. It varies from about a few centimetres to 2 metres.
- f. Sexual reproduction is oogamous.
- g. It has a vegetative apex (a reproduction apex) and a multicellular disk.