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NAME: AKWANO HELEN KENNETH
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COURSE: BIEO 102
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1	DIVISION	CLASS
•	Thallophyta	Phycotinae (Algae) Mycotinae (Fungi)
•	Bryophyta	Hepaticeae (Liverworts) Musci (Mosses)
•	Pteridophyta	Psilobinatae (Psilobum) Lycopodiinae (Lycopodium, Selaginella) Equisetinae (Horse tails) Filicinae (Ferns)
•	Spermatophyta	Gymnospermae (gymnosperm) Angiospermae (angiosperm)

2. It serves as food to man.
- i. It acts as a thickening agent in ice cream and shampoo.
 - ii. It also serves as drugs to ward off diseases.
 - iii. Algae have high iodine content therefore prevent goitre.
 - iv. Different species of red algae provide agar and carrageen used for the preparation of various gels used in scientific research.

3. The unicellular and mobile forms of green algae are represented by chlamydomonas.
- It is found in stagnant water
 - Flagella are the structures for mobility
 - The stigma is for photoreception

- The mitochondria mediate the elaboration of energy molecules
- Manufactured sugar is processed into starch in the pyrenoid

4 In a unicellular algae, reproduction can either be vegetative (asexual) or sexual.

For vegetative;

This reproduction results in 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. Thus, if the amount of genetic material in the mother cell nucleus is n , the daughter cells also have n quantity of genetic material.

This mitotic division maintains the quantity and quality of genetic material.

For sexual;

It 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 are morphologically identical.

5 Two types of colonial form of algae; Pandorina and Volvox

Pandorina	Volvox
Sexual reproduction in pandorina is anisogamous	Sexual reproduction in volvox is oogamous.

6 A complex algae is fucus

It is a genus of brown algae whose species are often found on rocks in the intertidal zones of the sea shores.

The plant body is flattened, dichotomously-branched thallus with a mid rib, a vegetative apex, a reproductive apex at maturity and a multicellular disk with which plant is attached to rock surface.

The plant body also has air bladders which is believed to aid the plant to float on the water.

Various species of Fucus exist; vary in size from a few centimetres to about 2 metres 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.