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1. Classify plants according to Eichlers grouping of 1883.
2. How are algae of importance to man
3. Describe a unicellular form of algae
4. How does this unicellular algae described in question 3 carry out its reproduction
5. Differentiate between the two types of colonial form of algae
6. Describe a named complex form of alga.

ANSWERS

1. In 1883, A.W. Eichler classified the whole plant kingdom into two sub-kingdoms.
 - i. The Cryptogamae
 - ii. The Phanerogamae.

The Cryptogamae: The Cryptogams are flowerless and seedless plants. They are simple plants like algae, mosses which do not produce flowers, fruits and seeds. They are considered as lower plants. Examples of Cryptogams are; Algae, bryophytes, pteridophyta

The Phanerogamae: Phanerogams are seed bearing plants also known as Spermatophytes. They are higher plants that have body parts divided into roots, stems, and leaves with well-developed vascular system. Examples of Phanerogams are; Gymnospermes, Angiospermae.

2. Algae can be used as a source of food
Used as fertilizer
Used in alkaline reclaiming
Considered to be a source of Protein, iron, potassium, magnesium among others.
Used as a thickener in the manufacture of toothpaste.
3. Unicellular forms of algae are also called acellular algae as they function as complete living organisms. Paramecium is a unicellular organism shaped like the sole of a shoe. Its size varies from specie to specie. It is found mostly in freshwater environment. They belong to the Kingdom Protista a well-known genus if ciliate Protozoa. Its movement is propagated by the cilia.
4. Paramecium reproduces asexually, by binary fission just like the amoeba. The ciliate stops moving and both the mega and micro nucleus divide and move to opposite ends of the organism. The cytoplasm then divides at right angles to the long axis and the daughter paramecia separate. The partners then separate and reproduce by binary fission.
5. The colonial forms in algae are:
 - Pandorina
 - Volvox

Pandorina	Volvox
Sexual reproduction is amisogamous	Sexual reproduction is oogamus

It is a genus of green algae	It is a complex form of Pandorina
Unicellular motile thallus	Multicellular motile thallus

6. Fucus

It is a genus of the brown algae whose species are found on rocks in intertidal zones of the sea shores. The body of the plant flattened, dichotomously-branched thallus with a mid-rib. A vegetative apex and a multicellular disk with plant is attached to a 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 meter in length.

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