

Q) Describe a unicellular form of algae

unicellular forms of algae are also called acellular algae as they function as complete living organisms. Unicellular forms are common in all the groups of algae except Rhodophyceae, phaeophyceae and charophyceae. The unicells may be motile or non-motile.

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Q) How does the unicellular algae described in question 3 carry out its reproduction?

Ans:

Cell division or fission is the simplest method of reproduction for the unicellular forms of algae. It is often called binary fission as found in Chlamydomonas. In this method, the two vegetative cells divide mitotically into two daughter. These finally divide into new individuals. The reproduction is asexual.

Q) Differentiate between two types of colonial form of algae.

	Volvex	Spirogyra
→	Reproduction is sexual and asexual	reproduction is sexual
→	Spherical colonies of up to 50,000 cells	few cells in colonies

6) Describe a named complex form of algae

Answer:

Spirogyra is a filamentous charophyte green algae of the order of Zygnematales, named for the helical or spiral arrangement of the chloroplasts that is the characteristics of the genus. It is commonly found in fresh water habitats and there are no more than 400 species of Spirogyra in the world.

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1) Classify plants according to Eichler's grouping of 1883

Answer :-

Eichler classified the plant Kingdom into two sub-Kingdoms. They are Cryptogamiae and phanerogamiae.

i) Cryptogamiae

- Gotten from the Greek words Kryptos meaning concealed and gamos meaning marriage.
- The Cryptograms are flowerless and seedless plants. They are simple plants like algae, mosses and ferns which do not produce flowers, fruits and seeds. They are considered as lower plants.

ii) phanerogamiae

- They are seed bearing plants.
- Gotten from the Greek word Sperma meaning seed and phytion meaning plant hence they are called spermatophytes. They are higher plants.
- Their plant body is differentiated into roots, stem and leaves with well developed vascular system.
- Examples are Gymnosperms and Angiosperms.

2) How are algae of importance to man?

- Direct use of algae as food for man
- As a source of in the production of ice cream & jelly
- In Medicine and Mineral
- used as fertilizer
- Ornamental uses
- Manufacture of iodine
- Manufacture of Soaps and alums
- Alginic acid, Algin and mannitol used in cosmetics.