**Assignment Title:** GENERAL BIOLOGY II  
**Course Title:** General Biology II  
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**Question**

1. Classify plants according to Eichler’s grouping of 1883.
2. How are algae of importance to man?
3. Describe a unicellular form of algae.
4. How does this unicellular alga 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.
7. A system of plant taxonomy, the Eichler system was the first phylogenic (phyletic) or evolutionary system . He gave system of classification for the whole plant kingdom. Eichler classified the plant kingdom into two sub-kingdom . They are cryptogamae and phanerogamae .

A} Cyptogamae are flowerless and seedless plants . They are simple and flowerless plants like algae, mosses and ferns which do not produce flowers , fruits and seeds . cryptogams are considered as lower plants.

B} Phanerogamme are seed bearing plants . so they are also known as spermatophytes . They are higher plants . The plant body is differentiated into roots, sterms and leaves with well developed vascular system. Examples are angiosperm and gymnosperms

1. Importance of algae to man

A] Direct use of algae as food for man

B] As a source of agar in the production of ice cream , jellies, desserts , etc.

C] Medicines and minerals

D] Manufacture of soaps iodine

E] Alginic acid mannitol which is used in the production of dyes , buttons and combs

F] Manufacture of soaps and alums

G] Used as fertilizer

H] Onamental used

1. Unicellular form of algae are also called a cellular algae as they function as complete living organism. Unicellula forms are common in all the groups of algae except Rhydophyceae , Phyaeophycaea and Charophyceae . The unicells may be motile or non-motile .
2. Cell division or fussion is the simplest method of reproduction for the unicellular forms of algae it is often called binary fission as found in chlamydominas . In this method the two vegetative cells divides mitotically into two daughter cells , those finally divide an new individuals. There reproduction is asexual.
3. Difference between Volvox and Synura

VOLVOX SYNURA

A] Reproduction is both sexual and asexual A] Reproduction is sexual

B] Spherical colonies of up to 50,000 cells B] Few cells in colonies

6. Spirogyra is a filamentious charophyte green algae of the order of Zygementales, named for the  
 helical or spiral arrangement of the chloroplast that is characteristic of the genus. It is commonly   
 found in fresh water habitats, and there more than 400 species of spirogyra in the world .