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COLLEGE: MEDICINE AND HEALTH SCIENCES
COURSE CODE: BIO 102

1. Classify plants accordingly to Eichler’s grouping of 1883

In 1883, A.W Eichler gave a system of classification for the whole plant kingdom . It is a traditional system as well as phylogenetic system of classification of plants.

Eichler classified the plant kingdom into sub-kingdoms. They are cryptogamae and phanerogamae.

- A. Cryptogamae are flowerless and seedless plants. They are simple and flowerless plants like algae, mosses and ferns which do not produce flowers, fruits and seeds. Cryptogamae are considered as lower plants.
- B. Phanerogamae are seed bearing plants so they are also known as spermatophytes. They are higher plants. The body parts is differentiated into roots, stem and leaves with well developed vascular system. Example are gymnosperm and angiosperms .

2. How are algae of importance to man?

- A. Direct use of algae as food for man.
- B. Used in the production of ice cream, jellies, dessert e.t.c
- C. Medicine and minerals.
- D. Manufacture of iodine.
- E. Alginic acid, algin and mannitol which is used in the production of dyes, buttons and combs.
- F. Manufacture of soaps and alums.
- G. Used as fertilizer.
- H. Ornamental uses.

3. Describe an unicellular form of an algae

Unicellular form of algae are also called algae as they areas complete living organisms. Unicellular forms are.....in all the groups of algae except RHYDOPHYCEAE , PHYAEOPHYCEAE and CHAROPHYCEAE .The uni cells may be motile or non motile.

4. How does this unicellular algae described above reproduce?

Cell division or multiple fission is the simplest method of reproduction for the unicellular form of algae. It is often called binary fission as found in chlamydomonas. In this method the two vegetative cells divides mitotically into two daughter cells, these finally divide into new individuals. This reproduction is asexual.

5. Differentiate between the two types of colonial form of algae

VOLVOX	PANDORINA
1. Sexual reproduction is oogamous	1. Sexual reproduction is anisogamous
2. Multicellular motile thallus	2. Unicellular motile thallus
3. It is the complex form of pandorina	3. It is the genus of green algae

6. Describe a complex form of algae

FUCUS

It's a genus of the brown Algae whose species are found on rocks in the intertidal zones of the sea shores. The body of the plant is flattened, dichotomously-branched thallus with a mid rib, a vegetative apex and a multicellular disk with which plant is attached to rock surface. The body has air bladders which is believed to aid the plant to float on the water. It varies in size from a few centimetres to about 2 metres in length.

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