

NAME: AYODELE OLUWADAMILOLA HELEN

COLLEGE: MEDICINE AND HEALTH SCIENCES

DEPARTMENT: HUMAN NUTRITION AND DIETETICS

MATRIC NUMBER: 19/MHS04/001

COURSE CODE: BIO 102

ASSIGNMENT.

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

Answer.

A. Cryptogamae: flowerless and seedless plants.

B. Phanerogamae: They produce flowers and seeds.

2. How are algae of importance to man?

A. They serve as source of food to man.

B. They are used in the production of drugs to ward off diseases

C. They are used as thickening agents in the production of shampoo and ice cream

D. They are used in the presentation of goitre

E. They are important in the manufacturing of fertilizers.

F. They are also used in the manufacture of soaps and alums.

3. Describe a Unicellular form of Algae.

Answer.

Clamydomonas.

Habitat: found mainly in stagnant water

Movement: it moves with its flagella

Cell structure: its cell is bounded by a cellulose cell wall.

Reproduction: It is either sexual or asexual ( vegetative)

4. How deos this unicellular algae described in question 3 carry out its reproduction?

A. By vegetative reproduction ( asexual): Here the cell undergoes mitotic division which leads to two nuclei ,the cell walls are elaborated which delimits the cytoplasm around each nucleus . i.e two daughter cells( zoospores) are released

B. Sexual reproduction: Here the two cells each with n quantity of genetic material undergoes fusion of nuclei to produce a single cell with diploid nuclear membrane . The zygote secretes a thick cell wall called a zygospore and after this the zygote undergoes two successive cell divisions. These two divisions which end up with 4 cells and n quantity of nuclear material is called meiosis. The 4 products of meiosis are released as haploid zoospores.

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

PANDORINA	VOLVOX
Colony of 16 cells	Colony of thousands of cells
Sexual reproduction is anisogamous	Reproduction is oogamous
Unicellular motile thallus	Multicellular motile thallus

6. Describe a named complex form of algae.

#### FUCUS

Brown algae often found on rocks in the intertidal zones of the sea shores. It's body is flattened ,dichotomously- branched thallus with a midrib ,it has air bladders that aids the plants to float on water. It has a vegetative Apex and a multicellular disk with which the plant is attached to the rock surface . Its sex cells are produced in conceptacles.