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COURSE:BIO 102

COURSE TITLE: GENERAL BIOLOGY II

ASSIGNMENT TITLE: GENERAL BIOLOGY II

1. Classification of plants according to Eichler’s.

A system of plant taxonomy, the Eichlersystem was the first phylogenetic (phyletic) or evolutionary system. It was developed by August W. Eichler (1839–1887), initially in his Blüthendiagramme (1875–1878) and then in successive editions of his Syllabus (1876–1890).After his death his colleague Adolf Engler (1844–1930) continued its development, and it became widely accepted. The system was based on dividing the plant kingdom into those plants with concealed reproductive organs (non-floral), the (Cryptogamae, = hidden reproduction) and those with visible reproductive organs (floral), the (Phanerogamae, = visible reproduction). Moreover, Eichler was the first taxonomist to separate the Phanerogamae into Angiosperms and Gymnosperms and the former into Monocotyledonae and Dicotyledonae. His primary ranks were Divisions (Abtheilung), followed by orders (Reihe).

2) IMPORTANCE OF ALGAE TO MAN;

- Food for sea animals and fishes

#### - Mineral contents

#### -Direct use of algae as food for man

#### - As a source of vitamins

#### -As a source of agar

#### -Medicines and minerals

#### -Manufacture of iodine

#### -Manufacture of soaps and alums

#### - As a fodder for hens and milk cattle

#### 3) Unicellular form of Algae

#### Unicellular algae are plant-like autotrophs and contain chlorophyll. They include groups that have both multicellular and unicellular species: Euglenophyta, flagellated, mostly unicellular algae that occur often in fresh water.

#### 4) Unicelluar algae reproduction

#### Unicellular organisms reproduce through binary fission, budding or mitosis depending on the species.

**5** Two types of colonial form of algae

The main difference between colonial and filamentous organisms is that **c**olonial organisms form a mass of similar cells while filamentous organisms form an array of organismsthatresemble a filament**.**

 Moreover, colonial organisms appear as a sphere while filamentous organisms appear as a thread.

#### 6) A named complex form of alga

#### The largest and most complex marine algae are called seaweeds. Seaweed, or macroalgae, refers to several species of macroscopic, multicellular, marine algae. The term includes some types of Rhodophyta (red), Phaeophyta (brown) and Chlorophyta (green) macroalgae. Seaweed species such as kelps provide essential nursery habitat for fisheries and other marine species and thus protect food sources.