

DEPARTMENT OF BOTANY BY DR. RANJANA  
D.B. COLLEGE JAYNAGAR ASST. PROFESSOR  
L.N.M.U. DARBHANGA (GUEST)

Lecture No: 25

Date: 28 Nov. 2020

CORE CONCEPT OF PARTI(H)

Group - A Algae

Classification of Algae — This is based upon —

- (i) Nature of pigments
- (ii) Nature of food reserve,
- (iii) Nature of flagella
- (iv) Chemical composition of cell wall

1. Cyanophyta — Typically photo-synthetic, producing molecular  $O_2$  as by-product.

presence of 2-pigment system PSI and PSII. No membrane bound chromatophores.

photosynthetic pigments include chlorophyll-a, phycobilioproteins and carotenoids. Electron transport is water. Respiration is aerobic. presence of gelatinous sheath.

2. Chlorophyta (green algae) — Cell

Wall made up of cellulose wide range of thallus organisation from unicellular colonial, coenobial, multicellular, filamentous to thalloid. Some members show heterotrichous habit (presence of prostrate erect systems) e.g. Coleochaete, Fritschella etc. food reserve, starch, green colour due to predominance of chlorophyll a and b, presence of pyrenoids, flagella 2 or 4 equal and anterior, sexual reproduction isogamous to oogamous.

3. Bacillariophyta (diatoms or olive green algae) thallus diploid cell wall calcified consisting of two overlapping halves i.e. epitheca and hypotheca. presence of chlorophyll a and c, characteristic pigment diatoms, food reserve, flagella - one anterior, production of unique type =