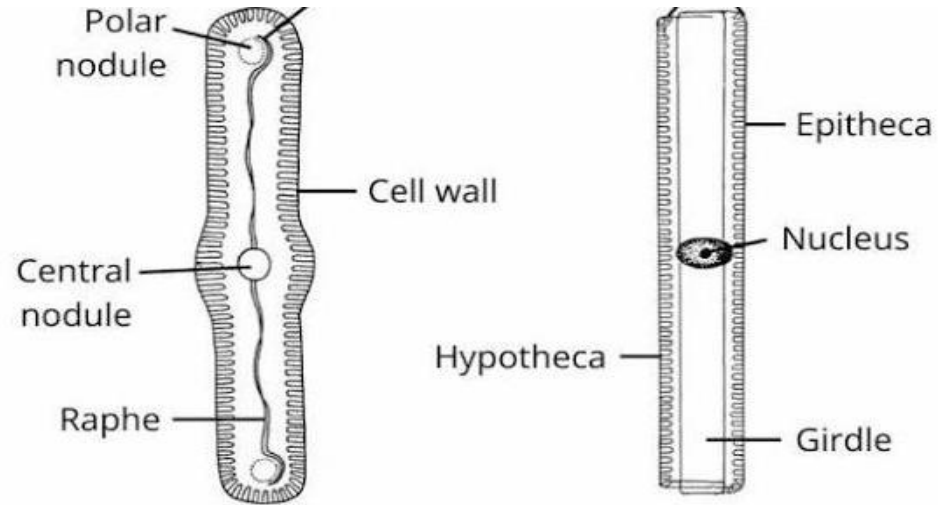


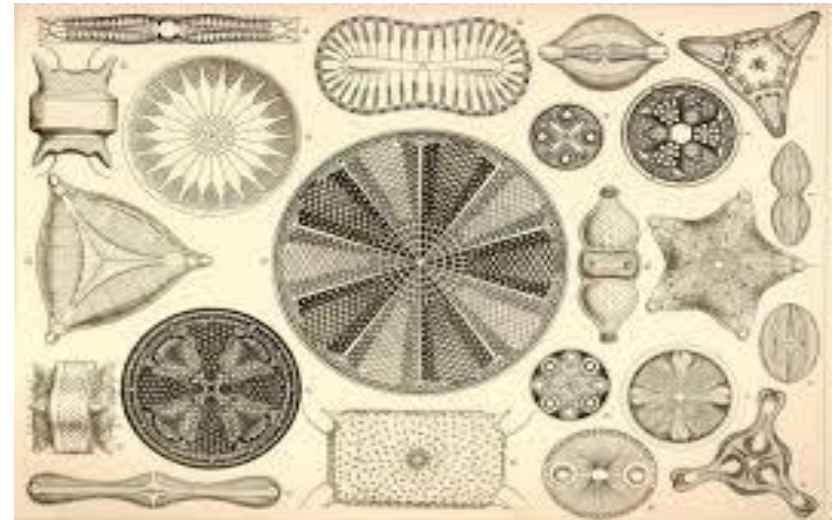
D: Bacillariophyta

Cl: Bacillariophyceae

Ex: Diatoms



Diatom structure features a unique, intricate silica cell wall called a frustule, resembling a pillbox with two overlapping halves: the larger top epitheca and smaller bottom hypotheca, which fit together like a lid and base. This siliceous shell protects the cell's protoplast and chloroplasts, and comes in two main forms: radially symmetrical centric diatoms (circular) and bilaterally symmetrical pennate diatoms (elongated/boat-shaped)



D : Phaeophyta

C : Phaeophyceae

O : Ectocarpenes

F : Ectocarpaceae

EX : Ectocarpus

A genus of brown algae branched filamentous thallus consisting of two parts: a prostrate system that anchors the plant and an upright, branched, photosynthetic filament. Each cell contains chloroplasts with fucoxanthin giving it its brown color. Its cells are cylindrical, uninucleate, and contain a single nucleus, large vacuoles.

reproducing asexually via zoospores from unilocular or plurilocular, part of its complex life cycle.

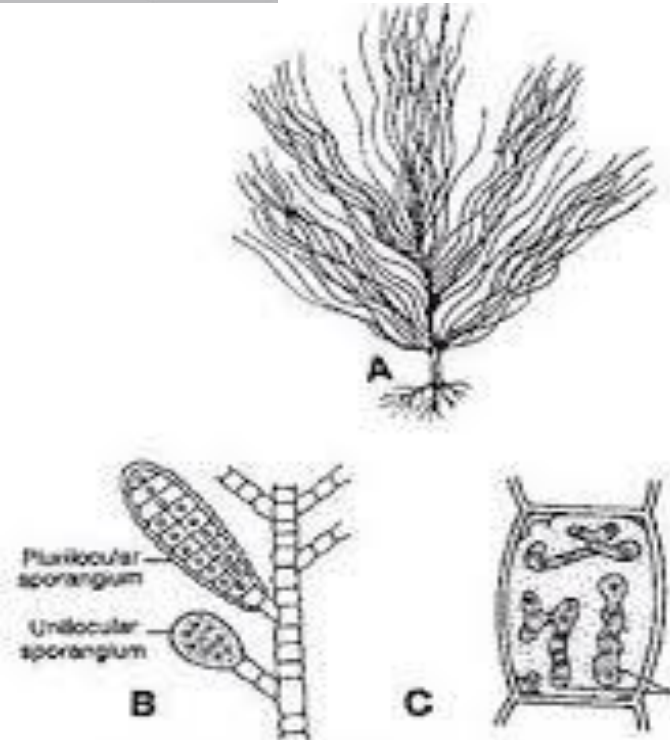
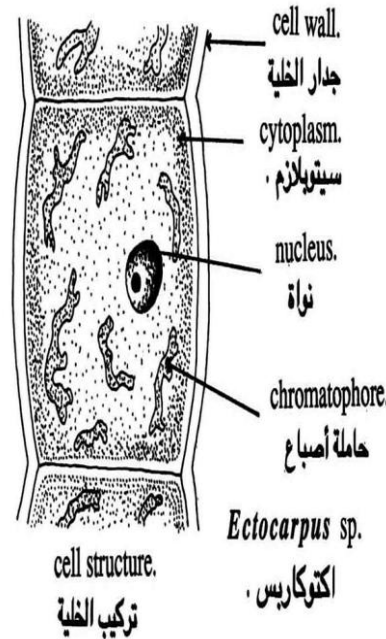


Fig. 1 (A-C). *Ectocarpus* thallus, (A) External (B) Part of thallus, (C) A cell

D/ Phaeophyta

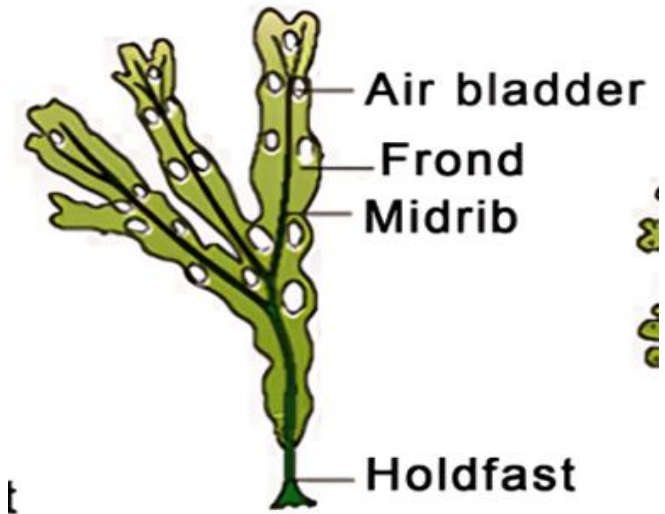
Cl : Phaeophyceae

Or : Fucales

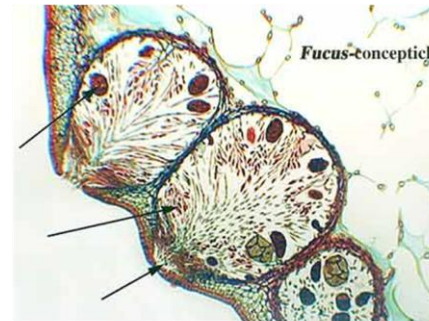
F : Fucaceae

ex : Fucus

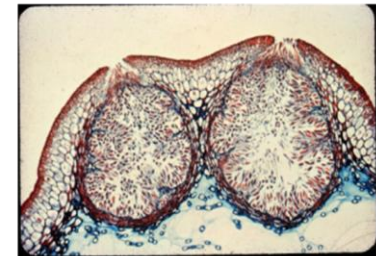
It is a genus of brown algae (rockweed) characterized by a tough, leathery, and dichotomously branched thallus (frond) attached to rocky substrates by a holdfast. Its key features include a prominent central midrib on the flattened fronds, paired air bladders (pneumatocysts) for buoyancy, and swollen terminal reproductive structures called receptacles..



Fucus-conceptacle



Female conceptacle



Male conceptacle

D : Phaeophyta

Cl: Phaeophyceae

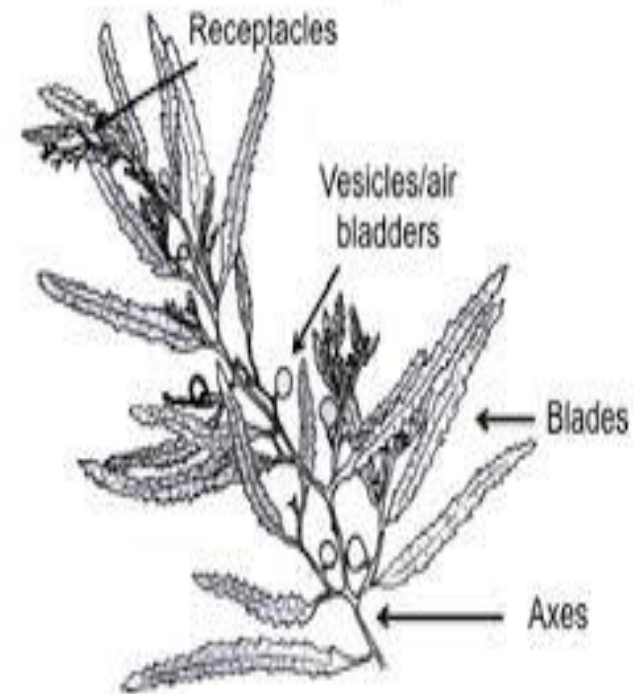
Or : Fucales

F : Sargassaceae

EX: Sargassum



It is a genus of brown algae, thalloid and branched. It remains attached to the substratum by a discoid holdfast. Main axis bears large number of primary laterals forming a larger part of vegetative structure. Branches are radially symmetrical and spirally arranged. Secondary branches are repeatedly branched. Many branches are flattened along the plane of branching into leaf-like structures called 'leaves'. Leaves are narrow and their margins are mostly serrate. In the lower parts, leaves are replaced by air bladders. In the axils of foliaceous branches (leaves) is situated a series of repeatedly branched receptacles which bear reproductive structures.



D: Rhodophyta
Cl: Rhodophyceae
Or: Lemnaneales
F: Batrachospermaceae
Ex : Batrachospermum

It is a genus of red algae. Thallus is multicellular and filamentous. Filaments are branched. Adult thallus appears as a chain of beads. It is mucilaginous and violet or blue in colour.

The main axis (primary axis) is corticated. It is differentiated into nodes and internodes.

Branches are borne at the nodes. Two types of branches occur-(i) branches of unlimited growth and (ii) branches of limited growth.

branches of limited growth arise laterally in whorls from the nodes of primary axes. (Clusters thus formed give beaded appearances to the thallus). Each cluster formed at the node, is called a glomerule.

