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class : Deg. I (Hons.)

Paper : I

Topic : Life-cycle of Fucus

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### Life-cycle of Fucus :

#### • Classification of Fucus :

Class : Phaeophyceae

Order : Fucales

Family : Fucaceae

Genus : Fucus

#### • Occurrence :

Fucus is a widely distributed marine alga, growing between the high tide level and low tide level along coasts. They are more abundant in temperate seas.

#### • Thalys structure or Plant Body :

##### External :

Fucus plant consists of a dichotomously branched, dark-brown, leathery, repeatedly forked ribbon-like structure. The plant body is differentiated into

three distinct parts — (a) a basal, disc-shaped holdfast or hapteron by which the plant attaches itself to a rock;

(b) A long cylindrical stem like-portion the stipe; and (c) A dichotomously branched ribbon-like-fronds. It is leathery in texture. Its surface is slippery and provided with a distinct mid-rib.

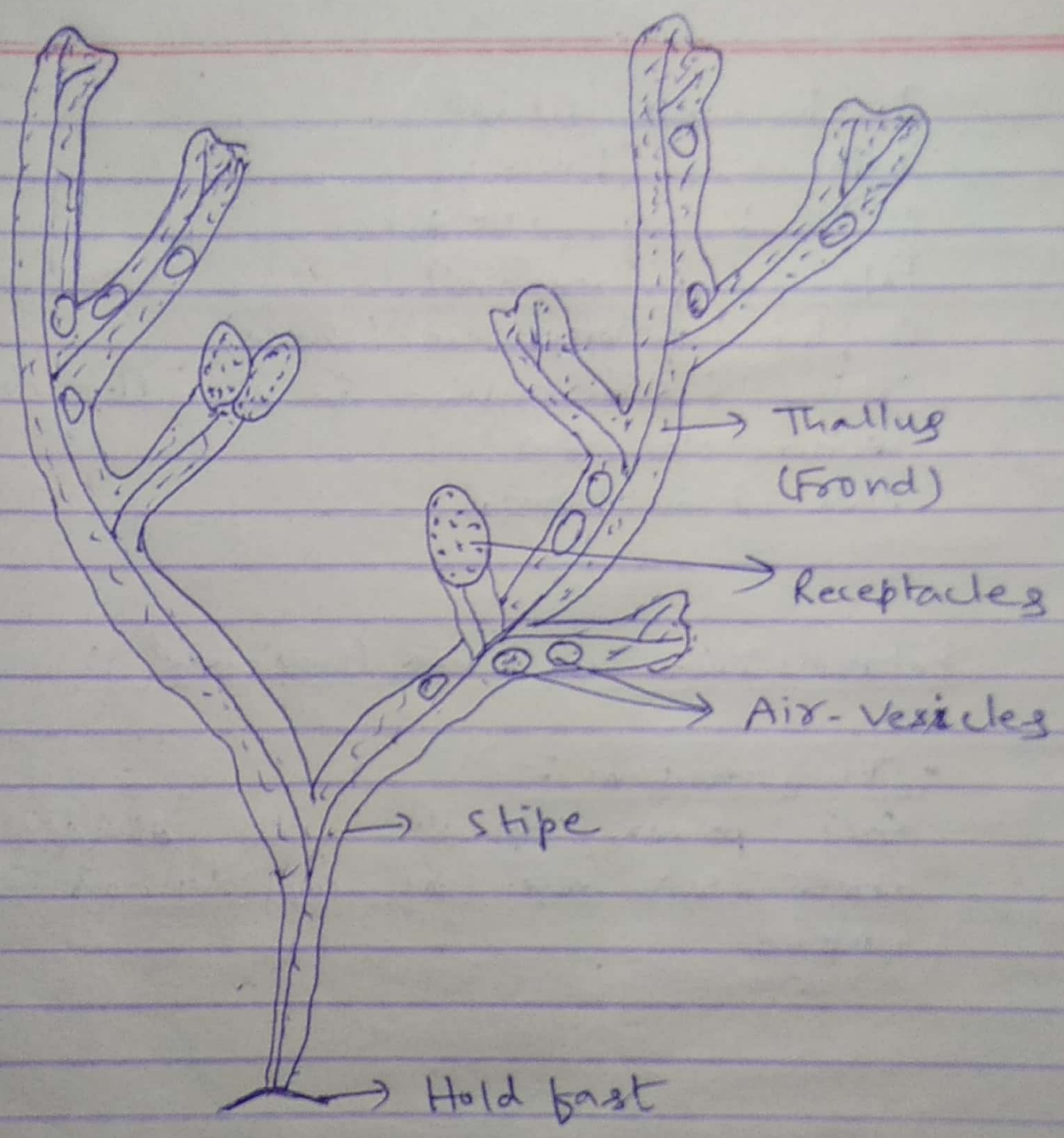
- The inflated tip of the frond is called the receptacle. It has some small opening, each leading into a cavity, known as conceptacle.

- The branches have some swelling along the mid-rib, often close to dichotomy. These swellings are filled with air and are known as air-bladders.

- They give buoyancy to the plant, helping it to float.

- The body of Fucus is composed of parenchymatous cells. Each cell contains a nucleus and several plastides, which contain fucoxanthin in addition to chlorophyll, the former masking of the chlorophyll and giving the plant a brown appearance.

As a result of photosynthesis, a carbohydrate called laminarin accumulates in the cells. No starch is formed.



(Fig: Thallus structure of Fucus.)  
(External)

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