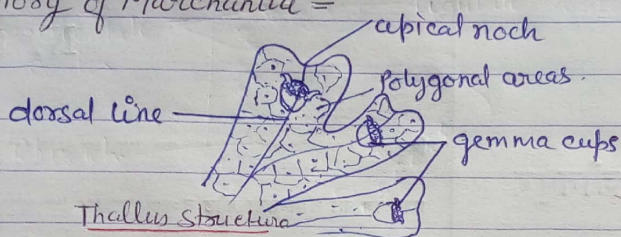


Life history of Marchantia =



Systematic position :-

Class - Hepaticopsida.

Order - Marchantiales

Family - Marchantiaceae

⇒ There are about 65 species found in all parts of the world, grow best in cool moist and shady places.

⇒ The genus (Marchantia) is represented in India by 11 species growing mainly in western Himalayas (*Marchantia polymorpha*) at altitude of 2500-5000m. on moist river bank and rocks.

External Feature :-

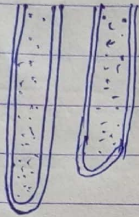
⇒ The plant body is gametophytic thalloid (no true root stem & leaf) prostrate dorsiventral and dichotomously branched.

⇒ The dorsal surface of thallus bears gemma cups along the midrib. The gemmae which develop in the cup of gemma help in vegetative propagation.

⇒ Each branch of thallus bears rhizoids ventrally and scales on both sides of the midrib.

⇒ The rhizoids are usually colourless and unicellular.

⇒ There are two types of rhizoids smooth and tuberculated.



Smooth walled  
rhizoids.

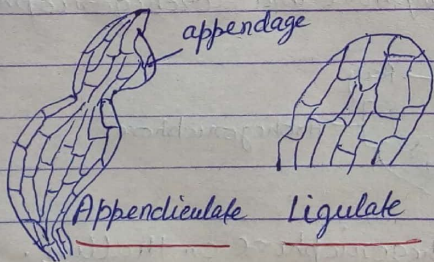


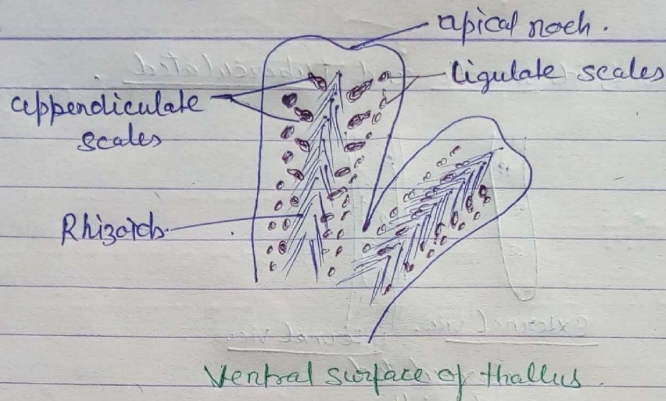
External view. Internal view  
Tuberculated  
rhizoids.

⇒ The scales are multicellular and one cell in thickness, violet in colour due to presence of pigments anthocyanin in their cytoplasm.

⇒ The scales are arranged in two rows on either sides of midrib, but three or four rows are also found in *Marchantia polymorpha*.

⇒ The scales are of two types (i) appendiculate - with apical appendage (ii) ligulate - small and do not have any appendage.





- ⇒ The scales protect the growing point and also retain some water by capillary action.
- ⇒ The sexually mature thalli possess specialized erect branches called them gametophores (bear sex organs).
- ⇒ Gametophores arise from the growing apex in apical notch where male thalli produces/bear antheridia and female thalli bear archegonia respectively called antheridiophore and archegoniophore.

