

Dr. Rachana Shalini

Department of Botany

Class : Deg. I (Hons.)

Paper : I (Algae)

Topic : Salient features of Polysiphonia

Lecture No. - 106

Date : 3/10/2020

Salient features of Polysiphonia :

- (i). The polysiphonous nature of the thallus consisting of an axial siphon surrounded by a number of pericentral siphon.
- (ii). The plant body consisting of the decumbent portion and the upright portion.
- (iii). The feathery upright portion consisting of a much branched system of relatively large branches bearing numerous small branches called the trichoblasts. The latter bear the sex organs.
- (iv). Growth in length by means of a single dome-shaped apical cell.
- (v). Occurrence of pit connections between the adjoining central cells and between the central cells and the pericentral cells.
- (vi). Occurrence of three kinds of plants - male, female and asexual plants.
- (vii). Sexual reproduction oogamous. The male sex organs are called the spermatangia and the female Carpogonia.

(viii). The spermatangia are developed in large numbers on the male trichoblast. The male gamete or the spermium is non-motile.

(ix). The carpogonium is a flask-shaped structure consisting of the basal swollen portion and the distal tubular portion - the trichogyne.

(x). The carpogonium is situated at the summit of a short, lateral, curved branch consisting of three or four cells. It is called the carpogonium filament. The later arises from one of the pericentral cells of the reduced female trichoblast.

(xi). The diploid nucleus formed by fertilisation, lies at the basal swollen portion of the carpogonium. The later communicates by means of a tubular connection with the axillary cell cut off from the supporting cell.

=

(Continued - - )