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Class : Deg. I (Hons.)

Paper : I (Algae)

Topic : Dedogonium (contd.)

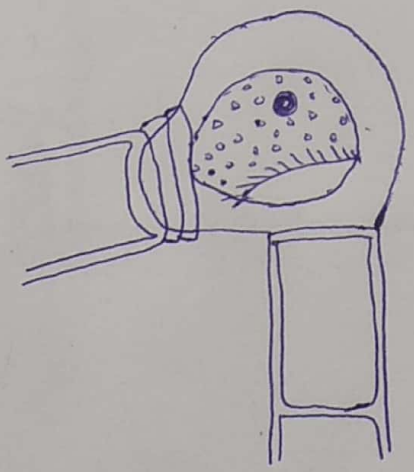
Lecture No. - 76

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Reproduction in Dedogonium :

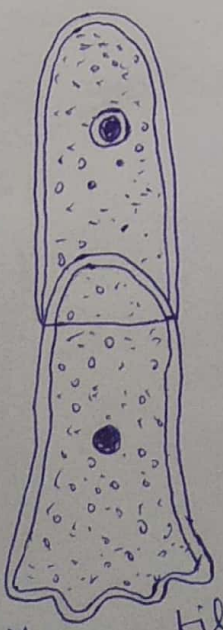
- Asexual Reproduction :
- Fragmentation is the chief method of vegetative propagation. Besides fragmentation, Dedogonium reproduces asexually by the formation of zoospores.
- Any cap-cell of the filament may function as the zoosporangium. Generally, only a few cells of the filament produce zoospores.
- In the formation of a zoospore, the entire protoplast of the zoosporangium withdraws from the wall and round up. At the same time, a colourless area appears at one side. Then, a ring of cilia developed in the circle around the colourless end to form a single, large multiciliate zoospore.
- Soon, the cell-wall ruptures at the apical cap. The two halves get apart.

- The zoospore surrounded by a delicate vesicle, slips out through the aperture.
- The vesicle soon disappears and the zoospore swims about in all directions.
- The liberated zoospore is a deep green, spherical structure.
- Next, the zoospore clothes itself with a cell-wall and eventually germinates into a filament.



(Escaping zoospore) (Germination of zoospore)

(Fig: Formation of Zoospore (Early stage))



(Fig: Formation of zoospore in Pedogonium) (A young filament)

(Continued..)