

Dr. Rachana Shalini

Deptt. of Botany

class : Deg I (Hons.)

Paper : 1 (Group - 'A')

chapter : Chara

Topic : Reproduction in Chara (Continued)

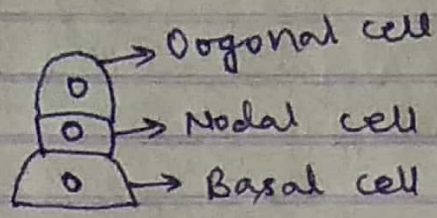
Lecture No. - 43

Date : 12/08/2020

Reproduction in Chara (Continued) :

(b) Development of Oogonium :

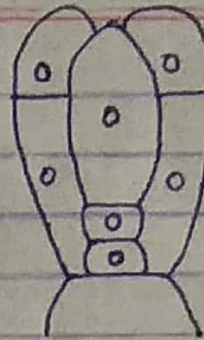
- The cell of the basal node of the antheridium facing the mother axis becomes an Oogonium initial.
- It undergoes two divisions in a transverse plane to form a short filament of three cells.
- Of these, the lowermost cell simply enlarges to form the one called pedicel, subtending the oogonium. The middle cell divides to form the sheath.
- The uppermost cell develops into an oogonium. It elongates vertically and divides by a transverse wall to cut-off a small lower stalk cell and a vertically elongated Oogonium mother cell.
- The Oogonium mother cell enlarges considerably and forms within itself a



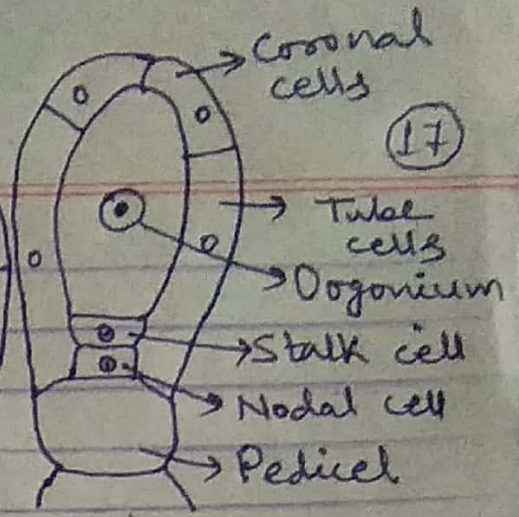
(A)



(B)

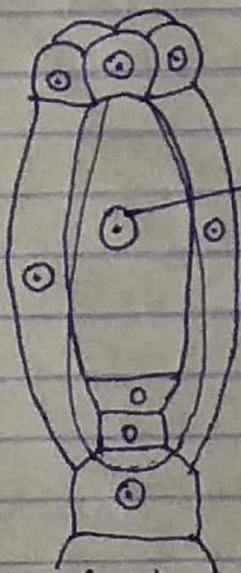


(C)



(D)

(Fig: Earlier stages in the development of Oogonium in Chara; Diagrammatic (A to E))



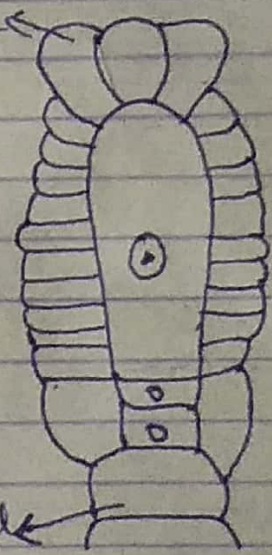
(E)



(A)



(B)



(C)

(Fig: (A-C) Later stages in the development of Oogonium in Chara; diagrammatic)

single uninucleate egg or ovum.

- The median cell divides many times to form five peripheral cells, enclose a single central cell constituting the node.

- The five peripheral cells grow upward into five threads. They form a protective sheath around the oogonium mother cell.
- Each sheath cell divides by a transverse wall forming two rows of five cells each.
- Cells of the upper row remain small and erect constituting the corona.
- The cells of lower row are called tube-cells.
- Tube-cell gradually become spirally twisted in a clockwise direction about the oogonium.

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(Continued ---)