

Topic - Parenchyma:

When parenchyma become star shaped then called as Stellate parenchyma.

(A) Toloblastic parenchyma: →

When enzyme, toxin, tannin and other ergastic (dead) materials are present in parenchyma.

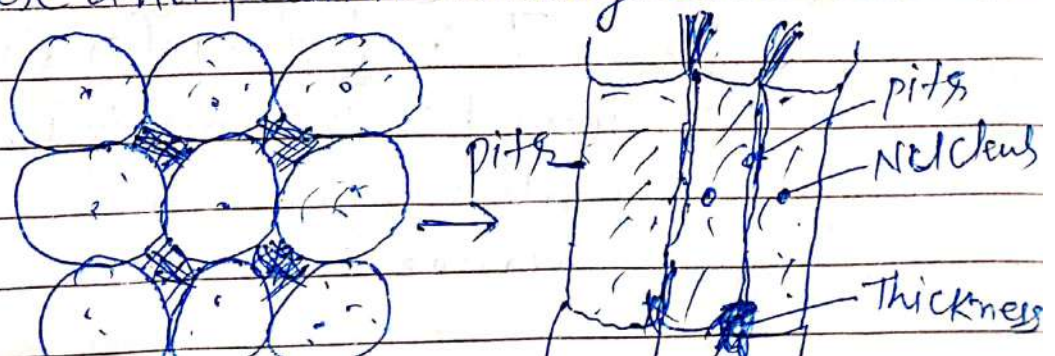
(B) Vacuolated: →

When in parenchyma large vacuole present filled with the mucilage and water for unfavourable condition. so called as vacuolated parenchyma.

Eg → Xerophyte (like Opuntia, Bryophyllum)

Function of parenchyma: →

- ① parenchyma is the packing tissue and when turgid (पुष्पित) then tightly packed and provide mechanical support to the plant organ.
- ② mainly take part in storage of water and food.
- ③ Calenchyma: → Term first of all given by Schlieffon. (1939)
 - ① Calenchyma is the living mechanical tissue.
 - ② It is some what elongated living permanent thick wall cell.
 - ③ Thickening take place due to deposition of Cellulose and pectin usually at the corner.



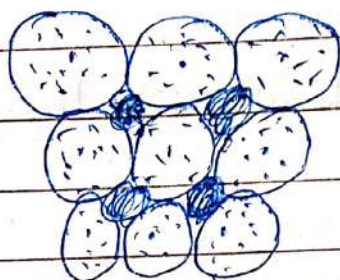
④ cell has high percentage of water and cell wall provided with one or more pits.

⑤ It is usually absent in root and found in those organ which face flexibility and elasticity like hypodermis of dicot stem.
on the basis of deposition of thickening.

Collenchyma may be: -

① Angular collenchyma: →

Eg → Datura stem

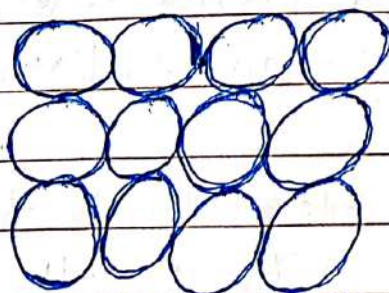


T.S of angular collenchyma

deposition of thickening take place at the junction between two cell so intercellular space will be blocked.

② Tubular or Lacunar collenchyma: →

Eg → stem of sunflower



T.S. of tubular collenchyma

deposition of thickening take place on the cell wall bordering the cell. so cell become tubular

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Topic - Living Character of Virus

- (i) Virus are pathogenic like other Microscopic organism.
- (ii) Virus Multiply (Reproduce) like other living organism but living cell.
- (iii) In virus Mutation (उत्परिवर्तन) occurred like living thing.
- (iv) In virus Nucleic acid (either DNA or RNA) present.

Classification of Virus

(1) International Committee : →

International Committee of Virus nomenclature (1966) classified Virus on the basis of : →

(a) Types of Nucleic acid

(b) Symmetry of particle (protein arrangement)

Phyllum = Virus

(A) Deoxy Virus
(Having DNA)

Sub Phyllum (B) Ribovirus
(Having RNA)

Deoxy Helica
(Helical symmetry with DNA)

Deoxy cubica
(Cubical symmetry with DNA)

Deoxy binala
(Head and tail like symmetry with DNA)

(1) Ribohelica
(Helical symmetry with RNA)

(2) Ribocubic
(Cubical symmetry with RNA)

(2) Classification on the basis of specificity.
(खासीयता)

Viruses are very specific in selection of host so on the basis of specificity. Virus may be following types.

(1) Phyto Virus or Plant Virus :->

(i) only attack on plant.

(ii) Mostly Made up of RNA and protein.

Exception :-> Cauliflower Mosaic Virus
↳ DNA and protein

(2) Animal Virus :->

(i) only attack on animal cell.

(ii) Mostly Made up of DNA and protein.

Exception :-> Influenza Virus

HIV ↳ RNA and protein

(3) Bacterial Virus or Bacteriophage :->

Bacteria eater

(i) Virus which attack on bacteria, is called as bacteriophage.

(ii) It is mostly Made up of protein and DNA.

Exception :-> Coli phage - F₂

(4) Cyanophage or Blue green algae virus :->

(i) discovered by Safferman and Moras.

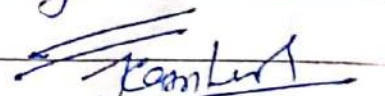
(ii) Virus which attack on blue green algae (cyanobacteria) called as cyanophage.

(iii) It is Made up of DNA and protein.

Eg :-> LPP I

N.B To be Remember :->

(i) Phycophage :-> Virus which attack on algae called as phycophage.


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