

18.7.2021

## HOMEWORK

Q1. Differentiate between ~~set~~ sclerenchyma and Parenchyma tissues.

Ans:- Sclerenchyma	Parenchyma
1. It provides mechanical support to the plants and makes the plant hard and stiff.	1. It <del>helps in</del> provides support to the plants and stores food.

1. They are ~~cells~~ thick walled <sup>cells</sup> and don't possess living protoplast at maturity.

3. They have no intercellular spaces.

4. This tissue is present in stems, around vascular bundles, in the veins of leaves and in the hard covering of seeds and ~~nut~~ nuts.

5. It is made up of dead cells.

2. They are cells with thin <sup>cell</sup> wall and living protoplasm.

3. They have intercellular spaces.

4. This tissue is present in cortex, and pith of stems and root, mesophyll of leaves and packing tissues in xylem and phloem.

5. It is made up of living cells.

~~Q2~~ Q2. Water hyacinth floats on water surface. Explain.

Ans:- A special type of parenchyma, called aerenchyma is present in water hyacinth. This tissue has air-filled

spaces inside and because the air gets trapped inside especially in the stem part so it becomes buoyant. Due to this, water hyacinth floats on water surface.

Q3. Why epidermis is important for the plants?

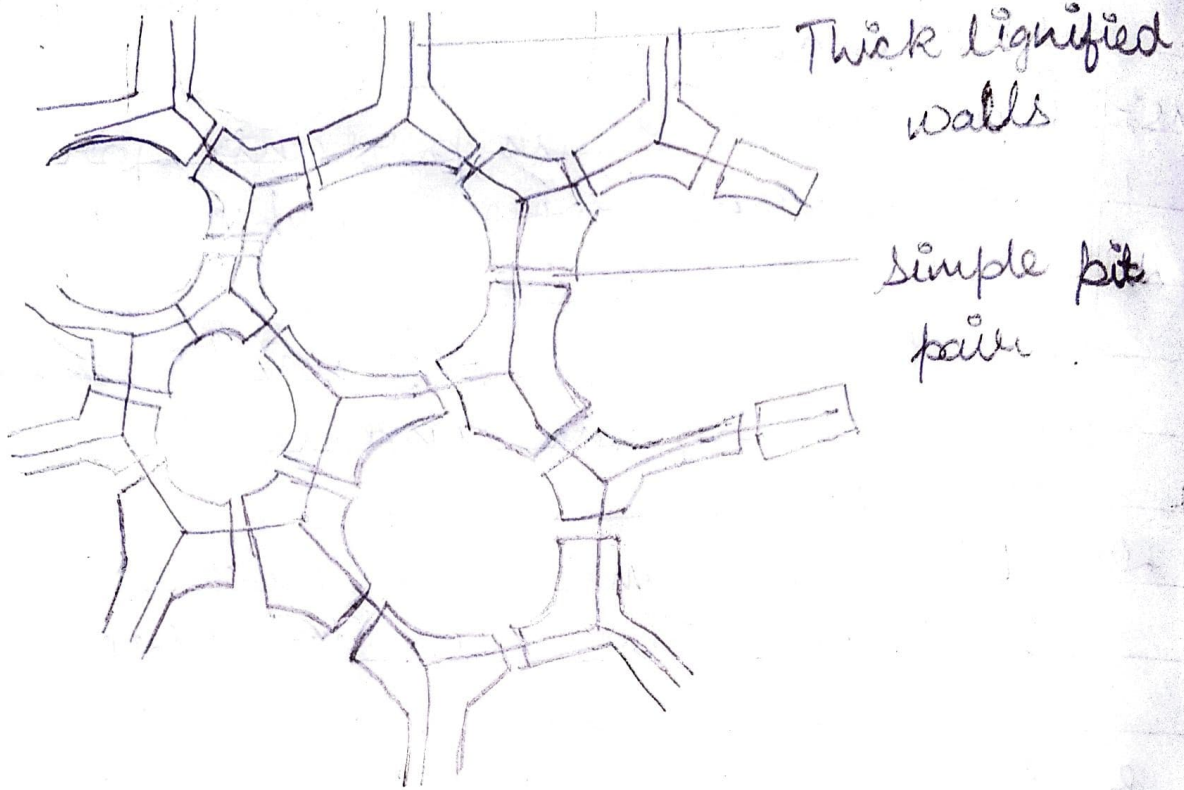
Ans: Epidermis is important for the plants due to because :-

1. it provides protection to the plants from undue loss of water.
2. The epidermis of root cells help in increase in absorption of water and nutrients.
3. ~~to~~ Epidermis of leaves contain ~~to~~ stomata which help in gaseous exchange and transpiration.

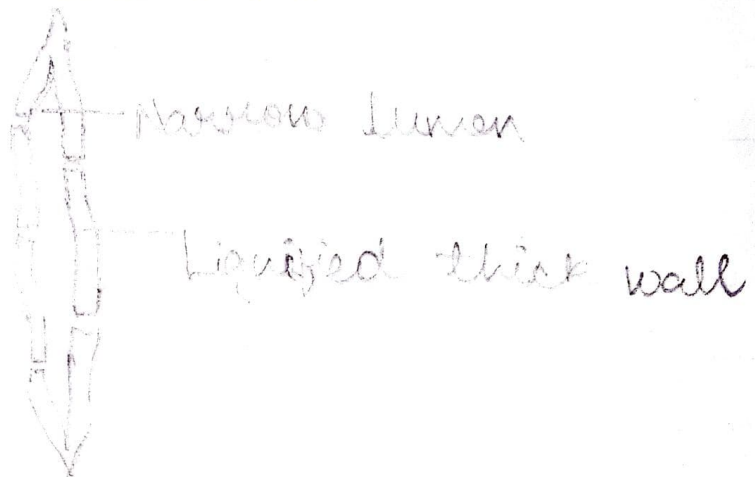
Draw ~~well~~ neat diagram of  
sclerenchyma and Parenchyma.

### Sclerenchyma

(i) Transverse section :-

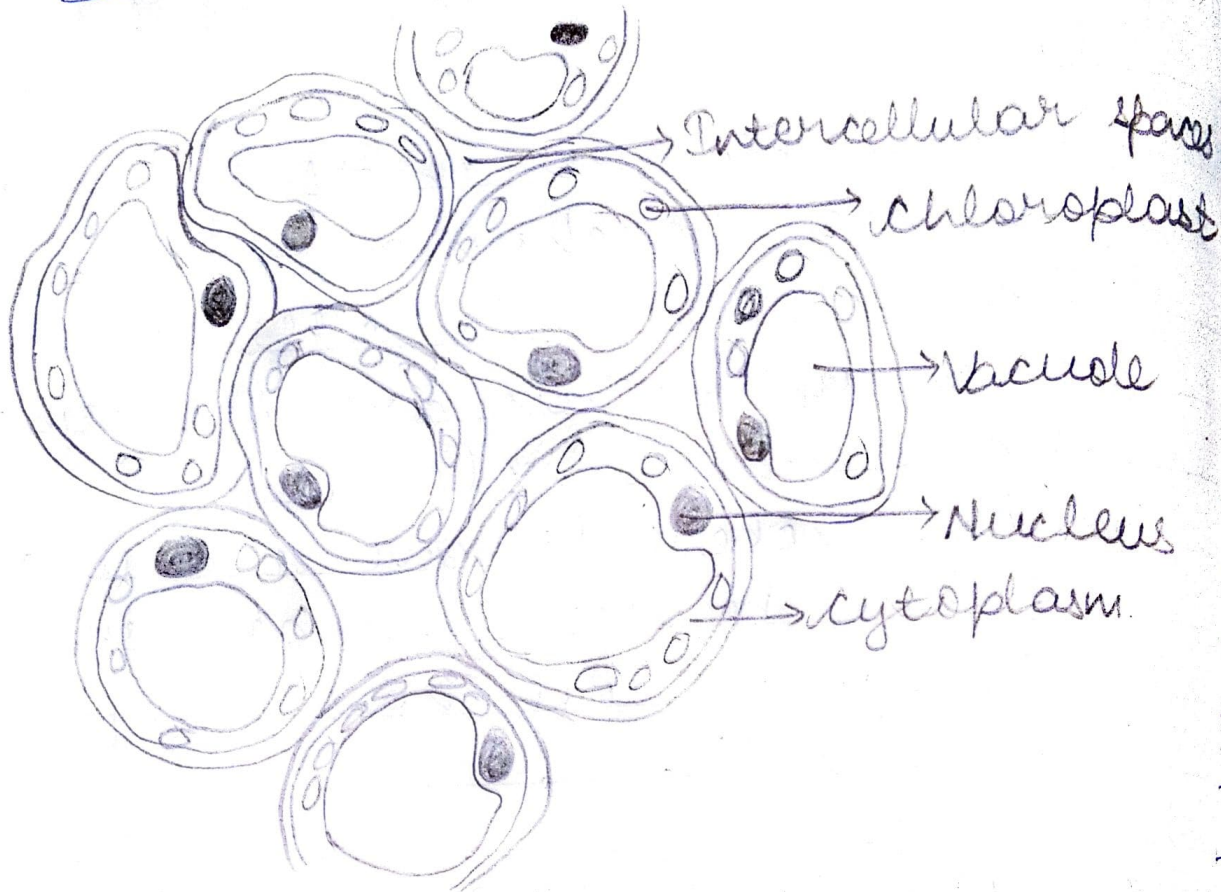


(ii) Longitudinal section :-

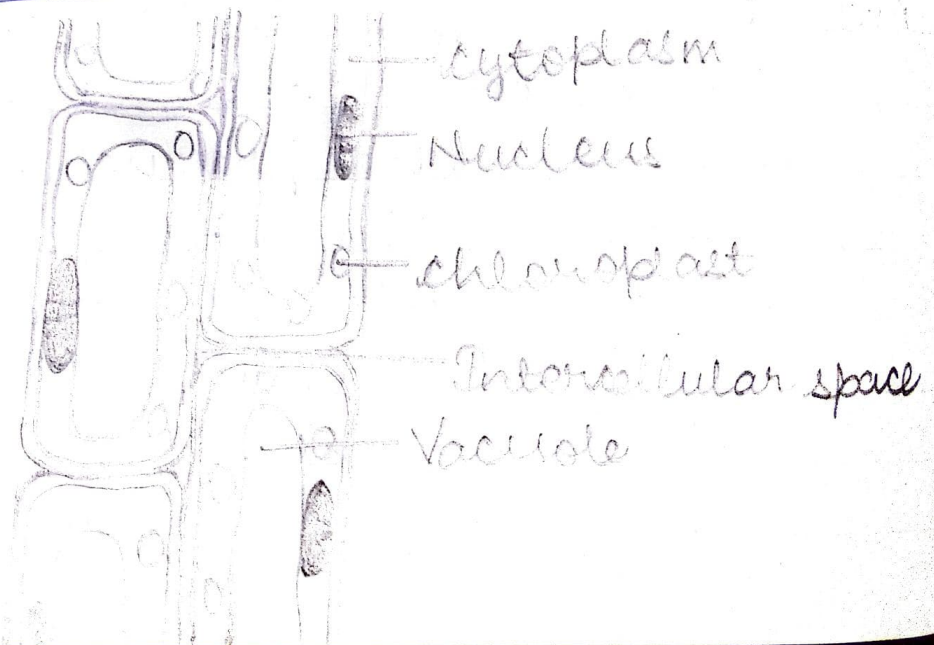


# Parenchyma :-

## (i) Transverse section :-



## (ii) Longitudinal section :-



Q4. We get a crunchy and granular feeling, when we chew pear fruit. Give reason.

Ans: We get a crunchy and granular feeling, when we chew, pear fruit because of the presence of sclerenchyma tissue.

2. The sclerenchyma cells are of two types. They are sclerenchyma fibres and sclereids.

3. The sclereids give a crunchy feeling because they are small, irregular and have lignified cell walls.

Q5. Why it is difficult to pull the husk of a coconut tree?

Ans: It is difficult to pull the husk of a ~~con~~ coconut tree due to the presence of sclerenchyma tissue.

Cells of sclerenchyma tissue have lignified cell wall which make them thick. This tissue makes the plant hard and stiff, making it difficult to pull the husk.