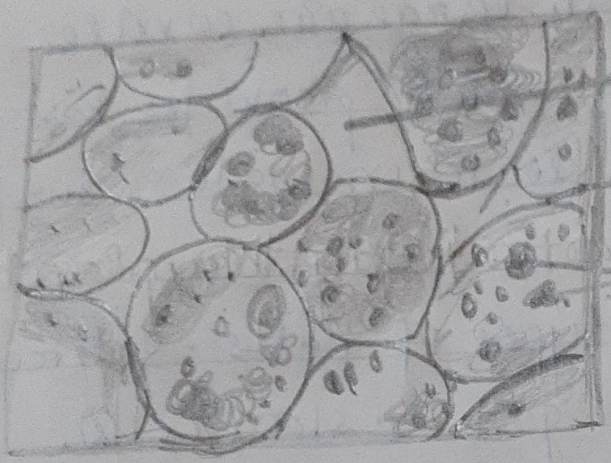
11/7/21 HOME ASSIGNMENT

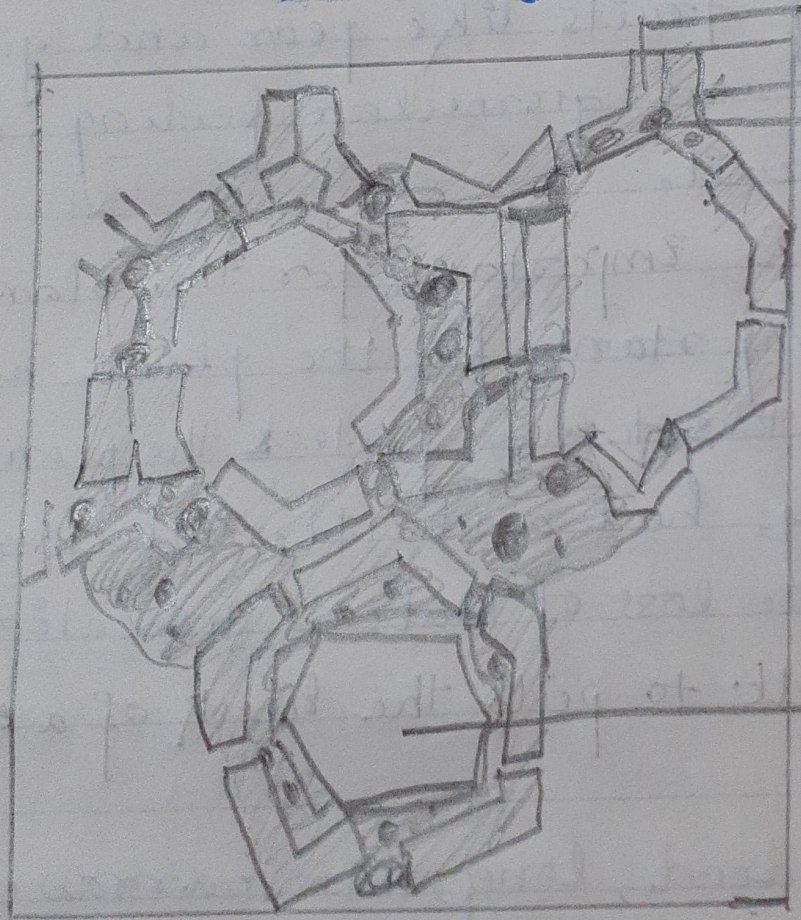
1. Differentiate between Sclerenchyma and Parenchyma tissues. Draw well labelled diagram.

Ans) Differentiation between Sclerenchyma and Parenchyma tissues.

Parenchyma	Sclerenchyma
* It consists of living cells	* It consists of dead cells.
* Intercellular spaces are present	* Intercellular spaces are absent.
* Cell wall is thin without having secondary deposition	* cell wall is thick as it has lignin deposition.
* Cells contain cytoplasm	* cells are devoid of cytoplasm.
* They have vital functions like synthesis and storage of food	* It is chiefly a mechanical tissue



Parenchyma Cell



Sclerenchyma Cell

2. Water hyacinth floats on water surface. Explain.

Ans) In water hyacinth, the parenchyma consists of

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loosely arranged cells with large air cavities, it is known as aerenchyma which provides buoyancy because of which it floats on water surface.

3. Why epidermis is important for the plants?

Ans) Epidermis is important for the plants as, it act as the protective tissues protect the plant from mechanical injury, heat and cold, infection and also from undue loss of water (desiccation).

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

Ans) Sclerenchyma has two types of cells - sclerenchyma fibres and sclereids (grit or stone cells).
Sclereid cells are short, highly thick walled. Present in pulp of fruits like pear and give them a crunchy and granular feeling, when we chew pear fruit.

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

Ans) Sclerenchyma is dead, long, thin narrow cells. Walls of sclerenchyma cells are lignified, which make them thick. This tissue makes the plant hard and stiff. Coconut husk is very hard and is made of such thickened, lignified cells. Such cells make it very hard to pull out the coconut husk.