

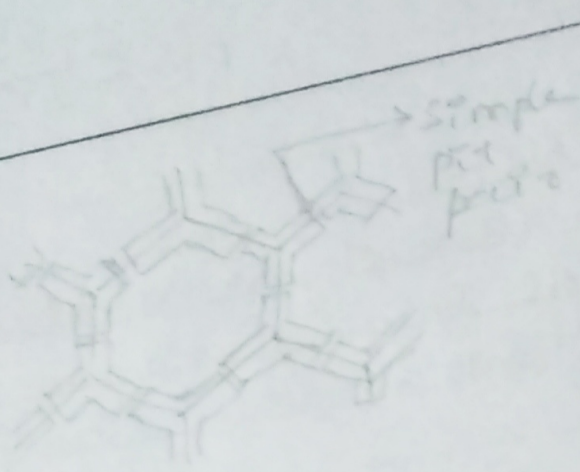
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* HOME ASSIGNMENT-2

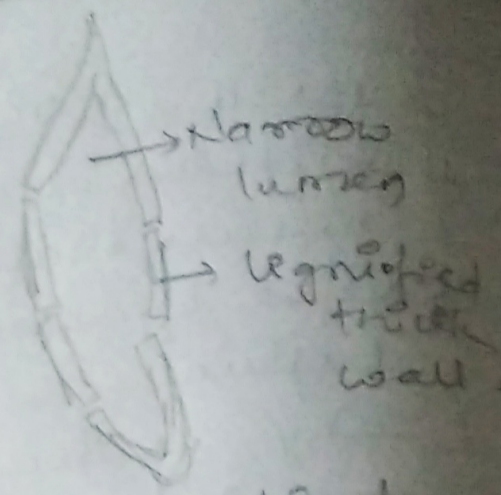
1. Differentiate b/w Sclerenchyma and Parenchyma tissues. Draw well labelled diagram.
2. Water hyacinth floats on water surface. Explain.
3. Why epidermis is important for the plants?
4. We get a crunchy and granular feeling when we chew pear fruit. Give reason.
5. Why it is difficult to pull the bark of a coconut tree?

Answers

<u>Sclerenchyma</u>	<u>Parenchyma</u>
<ul style="list-style-type: none">• Cells are thick walled and lignified• cell wall made up of water proofing lignin.• These consists of the dead living cells at maturity	<ul style="list-style-type: none">• Cells are thin walled and unspecialized.• Cell wall made up of cellulose.• Consists of dead living cells at maturity

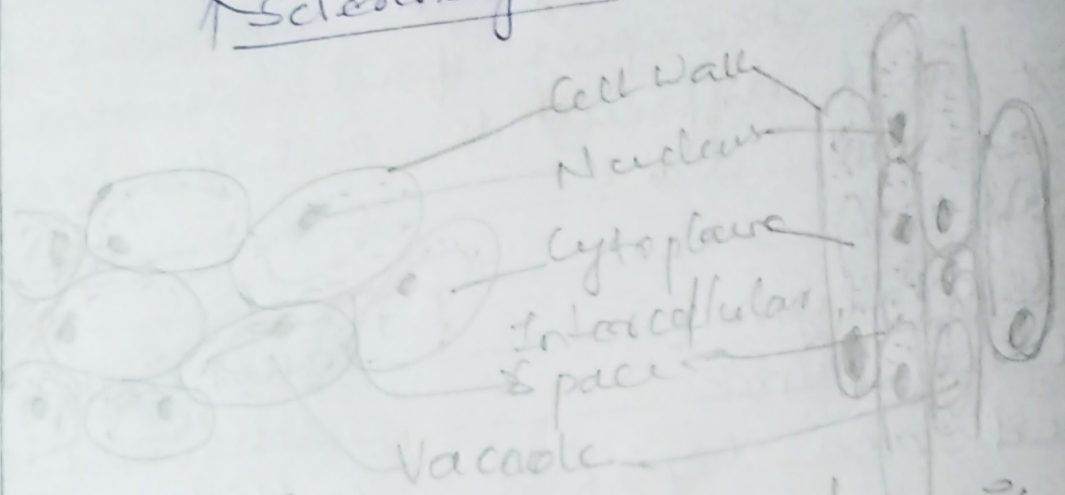


Transverse section



Longitudinal section

Sclerenchyma



Transverse section

Longitudinal section

Parenchyma

2. A special type of parenchyma, called aerenchyma is present in aquatic plants like water hyacinth. This tissue has air-filled spaces inside and because the air gets trapped inside those cavities especially in the stem part, so it gives

buoyancy to the plant. These do therefore, water hyacinths float on water surface

3. Epidermis plays a protective role for the plants. This aids in protection against loss of water, mechanical injury and invasion by parasitic fungi by secreting a waxy, water-resistant layer on the plants' ^{outer} surface. Thus, epidermis is important for the plants.

4. Pear fruit contains cells of sclerenchyma which are small, rounded and called stone cells. They are hard with highly thickened cell wall. They have lignified cell wall. This kind of appearance of the sclerenchymatous ~~tissue~~ cells gives the crisp and granular feeling when we chew pear fruit.

5. The husk of a coconut is made up of the sclerenchyma tissue, which comprises of dead cells with lignified, ^{thickened} cell wall due to deposition of hemicellulose

and lignin. This makes the plant hard
and stiff. Therefore, ~~hard~~ it is difficult
to peel the husk of a coconut tree.