

Q1. What do you mean by ascent of sap?

A. The upward movement of water & minerals from roots to different parts of plant is called ascent of sap.

Q2. Explain translocation of food sap with a neat labelled diagram.

A. Translocation is movement of nutrients & other materials from leaves to other tissues throughout the plant. Nutrients are translocated from source to sink.

Q3. Why water cannot be transported through out the body of tall plants by root pressure theory?

A. Root pressure can only move water against gravity by a few meters, as it is not strong enough to move water up the height of a tall tree.

Q4. Translocation of food through is unidirectional or bidirectional? Give reason to support of your answer.

A. Phloem transport is bidirectional because sucrose gets accumulated in the phloem tissue & absorbs water creating a high turgor pressure. Other areas have low turgor pressure & loss of water.

Phloem tissue carry food up

from leaf  
Food made by the leaf  
Preparation of matter from leaves  
Water & minerals from soil

Phloem tissue carry food down from leaf

Stem

Xylem tissue carry water & dissolved minerals up from soil

