

## HW

- 1) Name the plant tissue which are responsible for transportation in plants. Why they are known as complex permanent tissue?
- 2) Differentiate between xylem and phloem tissue structurally.
- 3) Transportation in xylem is bidirectional Explain.

## Answer

1) Xylem the plant tissue responsible for transportation of plants. They are called complex permanent tissue because it carries water and mineral salt from the roots to the aerial part of the plant.

3) The transportation in plants is bidirectional because the conduction of water is less where a lot of heat generated.

## Xylem

## Phloem

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|---|---|
| 1) Conducts water and mineral salts from the roots to the aerial parts of the plant | 2) Translocates food from the leaves to the storage organs and growing parts of the plant |
| 2) Made up of tracheids, vessels, xylem parenchyma and xylem fibers                 | 2) Made up of sieve companion cells, phloem parenchyma and phloem fibers                  |
| 3) Conducting cells are dead.   | 3) Conducting cells are living.   |
| 4) Conduction is unidirectional   | 4) Conduction is bidirectional  |
| 5) Conduction does not require any expenditure of energy.                           | 5) Conduction requires expenditure of energy.   |