

## Chapter 6

# TISSUES

### Complex permanent tissue:

- These tissues are made of more than one type of cells.
- All these cells coordinate to perform a common function.
- Vascular tissue are the complex permanent tissue.

### Xylem:

- Conducting tissue for water and minerals from roots to the stem.
- Provides mechanical support to plant parts composed elements like ,  
Tracheids, vessels, parenchymas, fibres.

#### 1 **Tracheids:**

- Elongated tube like cells, thick walled with tapering ends without protoplasm.  
Function-water transport

#### 2 **Vessels:**

- Long cylindrical tube, large central cavity with lignified walls, protoplasm present.
- These are interconnected with common wall.

#### 3 **Xylem fibre:**

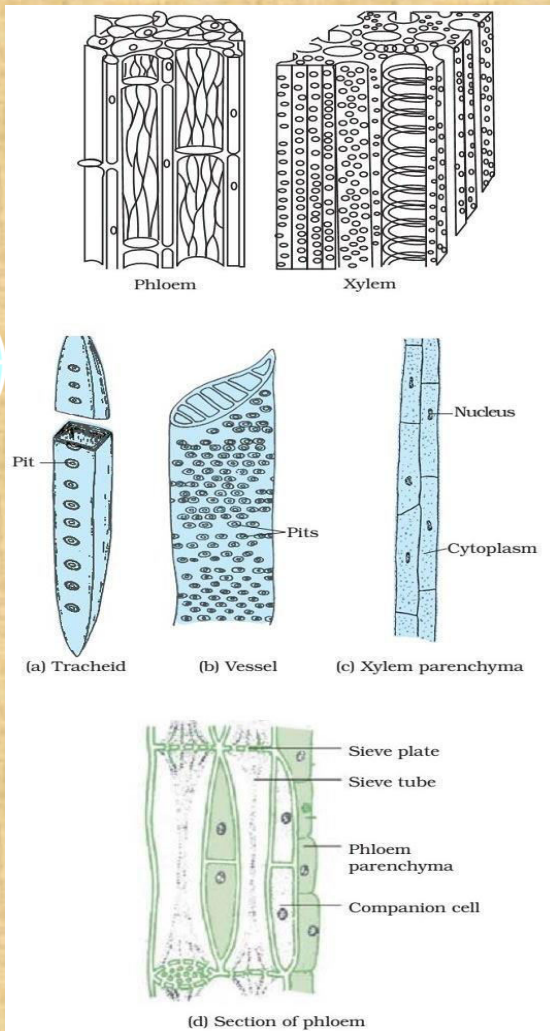
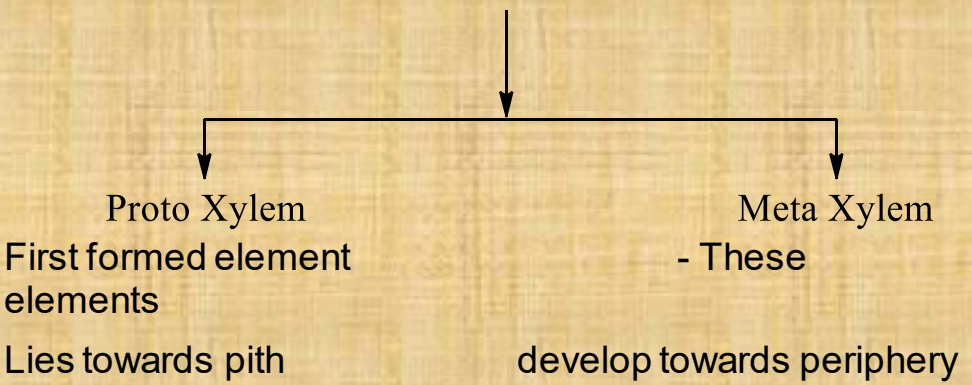
- Highly thickened obliterate central lumen aseptate (or) septate.

#### 4 **Xylem parenchyma:**

- Thin walled cell composed with cellulose, store food material as starch or fat and other substances like tannins.

#### 5 **Primary Xylem:**

Primary Xylem



6 **Endarch:**

- Protoxylem develops Metaxylem towards periphery.

7 **Exarch:**

- Protoxylem periphery metaxylem central.

