

Points to remember

- Reduction in vascular tissue, mechanical tissue and cuticle is characteristic of hydrophytes.
- Phellogen, cork cambium and interfascicular cambium are lateral meristem.
- The length of different internodes in a culm of sugarcane is variable because of intercalary meristem.
- The balloon-shaped structures called tyloses are exentions of xylem parenchyma cells into vessels.
- protoxylem anatomical structure will be used to distinguish between the dicot stem and a dicot root.
- Tracheids differ from the tracheary elements in being imperforate.
- Teak and Pine are suitable pair for critical study of secondary growth in plants.
- Grasses have little to no secondary growth.
- Water containing cavities in vascular bundles are found in maize.
- In barley stem, vascular bundles are closed and scattered.
- Grass leaves curl inwards during very weather because Flaccidity of bulliform cells.
- Stomata in grass leaf are dumb-bell shaped.
- The most important function of the trichomes is to prevent water loss due to transpiration.
- collenchyma has unevenly thick cell wall, has primary wall(cellulose) and secondary wall (hemicellulose or pectin), and is a simple, living, primarily mechanical tissue of the plant body.
- Intercalary meristems are called primary meristems because they appear early in life of a plant and they contribute to the formation of the primary plant body.
- collenchymas in plants provide mechanical strength to the growing parts of the plant.
- In dicot roots, the initiation of lateral roots and the vascular cambium during secondary growth takes place in pericycle.
- In dicot stem the vascular bundle is conjoint, open and with endarch protoxylem.
- Bulliform cells are found in isobilateral leaves and help in minimizing water loss.
- In temperate region plants, the wood with fewer xylary elements and narrow vessels, is termed as autumn wood.
- companion cells in plants are associated with sieve elements.
- cork cambium results in the formation of cork which becomes impermeable to water due to the accumulation of suberin.
- root cambium is derived from secondary meristem.
- In TS of Dicotyledonous root the parenchymatous cells which lies between the xylem and phloem are called conjunctive tissue.