Pradeep Eshwar



- 141. (3)Dorsiventral leaf Dicot leaf.
- 142. (4)Bulliform cells curl leaf inwards thus reduces transpiration and water loss.
- 143. (2)Radial vascular bundle : Xylem and phloem within a vascular bundle are arranged in an alternate manner on different radii.



144. (2)Vascular bundle provides the ability to form secondary tissues as they become meristematic in nature such vascular bundles are called open.

145. (4)

 $\left. \begin{array}{l} \text{Cork} \rightarrow \text{Phellem} \\ \text{Cork cambium} \rightarrow \text{Phellogen} \\ \text{Secondary cortex} \rightarrow \text{Phelloderm} \end{array} \right\} \text{Periderm}$

- 146. (1)Vessels are not present in gymnosperms. Fibres are not meant for water conduction. Transfusion tissue is present in leaves because gymnosperms lack lateral veins.
- 147. (4)Dead because xylem parenchyma is consumed in the formation of tyloses which are balloon-like structure formed in tracheids and vessels and they get deposited with organic secondary metabolites like resin, tannin, essential oils etc. Thus, they block tracheids and vessels called tracheal plugs So, non conducting elements.



148. (2)One year exhibits spring and autumn seasons, during this different xylem elements are produced.Which are called as spring wood and autumn wood.

and phloem are on the same radius with xylem situated towards the pith and phloem towards the pericycle with a strip of cambium between them. Xylem

150. (3)Dedifferentiation of medullary ray cells present between vascular bundles.