Question: A transverse section of stem is stained first with safranin and then with fast green following the usual schedule of double staining for the preparation of a permanent slide. What would be the colour of the stained xylem and phloem?

Answer: the colour of the stained xylem and phloem be red and green.

Question: Tissue whose Cells are living and show angular wall thickening. They also provide mechanical support.

Answer: Collenchyma tissue cells are living and show angular wall thickening. They also provide mechanical support.

Question: Epiblema of roots is equivalent to?

Answer: Epiblema of root is equivalent to **epidermis**.

Question: Interfascicular cambium and cork cambium are formed due to?

Answer:Interfascicular cambium and cork cambium are formed due to **Cell dedifferentiation**.

Question: What is the function of phloem parenchyma?

Answer: Food storage and its translocation is the main function of phloem parenchyma.

Question: What is present on the surface of the leaves which helps the plant prevent loss of water but is absent in roots?

Answer: cuticle is present on the surface of the leaves which helps the plant prevent loss of water but is absent in roots.

Question: What is the epidermal cell modification in plants which prevents water loss?

Answer: In grasses, certain adaxial epidermal cells along the veins modify themselves into large, empty, colourless cells. These are called bulliform cells. When the bulliform cells in the leaves have absorbed water and are turgid, the leaf surface is exposed. When they are flaccid due to water stress, they make the leaves curl inwards to minimise water loss.

Question: What are the cells that make the leaves curl in plants during water stress?

Answer: Bulliform cells that make the leaves curl in plants during water stress.

Question: Give one basic functional difference between phellogen and phelloderm.

Answer: Phellogen is a meristematic tissue which contributes to the secondary growth of the plant. and Phelloderm is a permanent tissue which is involved in synthesizing **and storage of food**.

Question: What do hard wood and soft wood stand for?

Answer: **Soft wood** is wood from gymnosperm trees. **Hard wood** is wood from angiosperm trees.

Question: If one debarks a tree, what parts of the plant is being removed?

Answer: Then periderm of the plant is being removed.

Question: What constitutes the cambial ring?

Answer: Interfascicular and interfascicular cambia together form the cambial ring.

Question: What is the fate of primary xylem in a dicot root showing extensive secondary growth?

Answer: It is retained in the centre of the axis.

Question: Give one basic functional difference between phellogen and phelloderm.

Answer: Phellogen is a meristematic tissue, while phelloderm is a permanent tissue that constitutes the secondary cortex.

Question: Arrange the following in the sequence you would find them in a plant starting from the periphery – phellem, phellogen, phelloderm.

Answer: Phellem → phellogen → phelloderm.