

9. Why are xylem and phloem regarded as complex permanent tissues.

Ans- Xylem and Phloem are an example of complex permanent tissues. These tissues are named so because they are made up of more than one type of cells and all these different type of cells co-ordinate to perform the ~~same function~~ same function.

10. Classify permanent tissue.

Ans- Permanent tissues can be classified as:-

- * Simple permanent tissues.
- * Complex permanent tissues.

11. On what basis are tissues classified as simple and complex?

Ans- ~~Bases~~ Tissues are classified on the Simple and complex tissues are classified on the basis of their specialisation.

12. Explain protective tissues in plant.

Ans- The protective tissues in plant consists of epidermis and cork.

Epidermis - It is the out covering of cells in plants. It carries out protective function. It is generally made up of one single layer of cells. In arid habitats, the epidermis is ~~the~~ thicker to protect the plant from undue loss of water.

Cork - As plants grow big, a strip of secondary meristem replaces the epidermis of the stem. It is a plain tissue with only one type of cell. The cork cambium gives off fresh cells on both sides, forming cork. These cells are lifeless with no intercellular spaces and are greatly thickened.

13. Elaborate the types of simple permanent tissues. Also explain their structure and functions.

Ans. There are three types of permanent tissues

* **Parenchyma** - The cells of this tissue are living, with thin cell walls. Cells can be oval or round in shape. They have a large vacuole and a dense cytoplasm. The parenchyma tissue is located in the soft parts of the plants. It mainly acts as a packing tissue, providing mechanical support. It also helps in the storage of food.

* **Collenchyma** - These cells are living cells and have an elongated shape. The corners of the walls are thickened. There is very little intercellular space present. The collenchyma tissues can ~~be~~ provide flexibility to plants as well as mechanical support.

* Sclerenchyma - The cells of the sclerenchyma tissues are dead. The cell wall is very thick due to lignin. The cells of this tissue can be in different shapes and ~~set~~ sizes. The main function is to provide rigidity and mechanical support to the plant body.