

**Biology**  
**CH-6 Tissue**  
**Exercise Questions(only plant tissue)**

**Question 1:** Define the term ‘tissue’?

**Answer 1:** The group of cells similar in structure that work together to achieve a particular function forms a tissue. This group of cells has a common origin.

**Question 2:** How many types of elements together make up the xylem tissue?  
Name them.

**Answer 2:** Xylem is a complex tissue. It is made up of following four kinds of cells or elements:

- (a) Tracheids
- (b) Vessels
- (c) Xylem parenchyma
- (d) Xylem fibres.

**Question 3:** How are simple tissues different from complex tissues in plants?

**Answer 3:** Simple tissues are made up of one type of cells which coordinate to perform a common function.

Complex tissues are made up of more than one type of cells. All these coordinate to perform a common function.

**Question 4:** Differentiate between Parenchyma, Collenchyma and Sclerenchyma on the basis of their cell wall.

**Answer 4:** The differences between cell walls of Parenchyma, Collenchyma and Sclerenchyma are given in the following table:

<b>Parenchyma</b>	<b>Collenchyma</b>	<b>Sclerenchyma</b>
1. Cell wall is primary	1. Cell wall is primary	1. Cell wall is secondary
2. Cells have thin walls and made up of cellulose	2. Cell walls are thickened at the corners due to protein deposition	2. Cell wall is very thick due to lignin deposition.

**Question 5:** What are the functions of *Stomata*?

**Answer 5:** The small pores present in the epidermis of the leaf are stomata. Stomata are enclosed by two kidney shaped cells called guard cells.

Functions of Stomata

- Exchange of gases, particularly CO<sub>2</sub> and O<sub>2</sub>, with atmosphere.
- Loss of water in the form of vapour during transpiration.

**Question 12:** Name the regions in which parenchyma tissue is present.

**Answer 12:** Parenchyma is a simple permanent tissue of angiospermic plants. It is present in cortex and pith of stem and roots. It is also present in mesophyll of leaves. When it contains chlorophyll, it is called Chlorenchyma, found in green leaves.

**Question 13:** What is the role of epidermis in plants?

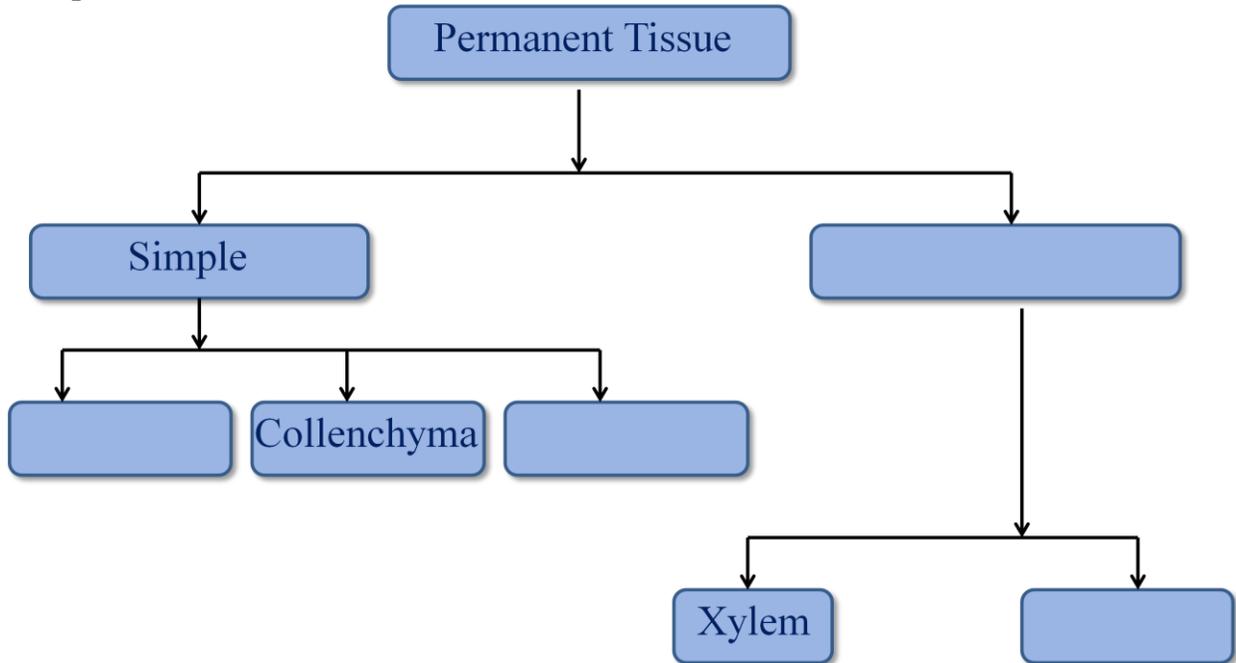
**Answer 13:** Epidermis is a protective tissue of angiospermic plants. It provides protections to underlying tissues. Epidermis forms outer covering of various plant organs such as roots, stem, leaves, and flowers and remains in direct contact with the environment. Any substance whether solid, liquid or gas can enter into the plant or move outside only after passing through this layer. Epidermis helps in absorption, secretion, gaseous exchange and transpiration. It helps in preventing the entry of pathogens.

**Question 14:** How does the cork act as a protective tissue?

**Answer 14:** The cork cells are dead cells and do not have any intercellular spaces. The cell wall of the cork cells are coated with suberin (a waxy substance). Suberin makes these cells impermeable to water and gases. Cork is protective in function; it protects underlying tissues from desiccation, infection and mechanical injury.

**Question 15:**

Complete the table:



**Answer 15:**

