

**BIOLOGY**

GRADE: IX

CH-6 TISSUES (PLANT TISSUE)

**Answer the following**

**One mark questions**

1. Where is apical meristem found in plants?
2. Name the tissue present in soft parts of the plants like pith and cortex
3. What are complex tissues?
4. Which plant tissue is associated with conduction of food in plants?
5. Name the chemical substance that makes the cork cells impervious to gases and water.

**Two mark questions**

6. List the characteristic features of meristematic tissue.
7. Differentiate between sclerenchyma and parenchyma tissues.
8. Water hyacinth floats on water surface. Explain.
9. Why is epidermis important for the plants?
10. List the constituents of xylem and phloem.

**Five mark questions**

11. Explain three types of meristematic tissues.
12. Enumerate three differences between simple and complex tissues.
13. Give the functions of the stomata.
14. Define the term differentiation. List two functions of collenchyma cells.
15. Draw the diagram of the section of the tissue responsible for translocation of food in plants. Name the element of phloem which comprises of non-living cells

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**ENRICHMENT WORKSHEET**

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**Answer the following**

1. Growth in plant is restricted to certain regions. Give reason for this fact. Mention two growth regions in plants.
2. Differentiate between:
  - a. Chlorenchyma and Aerenchyma
  - b. Xylem and phloem
3. What is the main function of vascular tissues in plants?
4. What would happen if the phloem at the base of a branch is removed and the xylem of root of a plant is blocked?
5. Which structure protects the plant body against the invasion of parasites?
6. Justify the statements giving suitable reasons:
  - a. Meristematic cells have prominent nucleus, dense cytoplasm but lack vacuole.
  - b. Absence of intercellular spaces in sclerenchyma tissues.
  - c. While chewing pear fruit we get a crunchy and granular feeling.
  - d. Branches of a tree move and bend freely in high wind velocity.
  - e. It is difficult to pull the husk of a coconut tree.
7. List the characteristics of cork. How are they formed? Mention their role.
8. Draw the labeled diagrams of:
  - a) Location of meristematic tissue in plant body
  - b) Transverse section of parenchyma, collenchyma and sclerenchyma tissues.
  - c) Draw a neat diagram of leaf epidermal peel showing stomata .Label any two parts.

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**REMEDIAL WORKSHEET**

Choose the correct option

1. Which of the following are undifferentiated, actively dividing cells?  
a) Parenchyma   b) Collenchyma   c) Sclerenchyma   d) Meristematic
2. Collenchyma differs from sclerenchyma in  
a) having thick walls   b) being flexible   c) being living at maturity   d) being strong
3. Cork cells have  
a) Lignin   b) suberin   c) cutin   d) pectin
4. The cells which are responsible for the increase in the length of the plant are  
a) Xylem   b) Phloem   c) Meristematic   d) Sclerenchyma
5. The living component of xylem is  
a) Tracheids   b) Vessels   c) Xylem fibres   d) Xylem parenchyma
6. The elongated sclerenchyma cells pointed at both the ends are called  
a) Fibres   b) Sclereids   c) Tracheids   d) Vessels
7. Which of the following transport water and minerals in a plant?  
a) Sclerenchyma   b) Collenchyma   c) Xylem   d) Phloem
8. Which of the following is not a living component of phloem?  
a) Sieve tubes   b) Companion cells   c) Phloem parenchyma   d) Epidermis
9. Which of the following tissue is mainly composed of dead cells?  
a) Collenchyma   b) Xylem   c) Phloem   d) Epidermis
10. The food in plants is stored in  
a) Parenchyma   b) Chlorenchyma   c) Collenchyma   d) Sclerenchyma
11. The function of tracheids is  
a) transport of food   b) mechanical support   c) transport of minerals and water   d) food storage
12. Bases of leaves and internodes have  
a) lateral meristem   b) apical meristem   c) intercalary meristem   d) none of these
13. In desert plants, rate of water loss gets reduced due to the presence of  
a) cuticle   b) stomata   c) lignin   d) suberin
14. A long tree has several branches. The tissue that helps in sideways conduction of water in the branches is  
a) collenchyma   b) xylem parenchyma   c) parenchyma   d) xylem vessels
15. Which is not a function of epidermis?  
a) Protection from adverse condition   b) Gaseous exchange   c) Conduction of water  
d) Transpiration