

# Plant Tissue Lab Report

## Section I

1. \_\_\_\_\_ cells are non-living with very thick cell walls at maturity.
2. \_\_\_\_\_ cells are large with thin cell walls.
3. \_\_\_\_\_ tissue is primarily involved with food storage.
4. \_\_\_\_\_ tissue has cells with partially thickened cell walls. These cells are living at maturity.
5. \_\_\_\_\_ tissue is involved with structural strength and physical protection.
6. Draw examples of parenchyma, collenchyma and sclerenchyma cells.

Parenchyma

Collenchyma

Sclerenchyma

## Section II

7. \_\_\_\_\_ is a vascular tissue that transports water and is nonliving at maturity.
8. \_\_\_\_\_ are the functional phloem cells that transport dissolved food.
9. \_\_\_\_\_ are the most primitive xylem cells.
10. \_\_\_\_\_ More advanced plants tend to have \_\_\_\_\_ as their xylem elements.
11. \_\_\_\_\_ cells are nucleated and are closely associated with the sieve cells of phloem tissue.
12. Long tapering xylem elements are \_\_\_\_\_.
13. Draw examples of xylem and phloem tissue from both longitudinal and cross sectional views.

L.S.                  C.S.  
Xylem Tracheids

L.S.                  C.S.  
Xylem Vessels

Phloem L.S.

Phloem C.S.

**Section III**

14. The outer living protective covering of non-woody organs is the \_\_\_\_\_.
15. The \_\_\_\_\_ is a non-living outer covering on woody stems.
16. Cork cells are produced by the \_\_\_\_\_.
17. Draw examples of epidermis and the periderm.

Epidermis

Periderm

**Section IV**

18. Secondary tissues are produced by the \_\_\_\_\_.
19. Primary tissues are produced by \_\_\_\_\_.
20. Growth in length of stems and roots results from activity of the \_\_\_\_\_.
21. Growth in diameter of stems and roots results from activity of the \_\_\_\_\_.