Plant Structure, Growth and Development
Chapter 35

1. What is morphology?
2. Distinguish between a monocot and a dicot and give five different structural comparisons for each.
3. Be familiar with the terminology of plant morphology.
4. Identify the two main systems of flowering plants. Give the evolutionary reason for their existence and the main organs found in each system.
5. Name the three types of plant cells (ending in -chyma) and give examples of specific functions each performs.
6. State the functions of both xylem and phloem. What important difference exists between them at functional maturity?
7. Identify the three types of tissues in a plant and state the function of each.
8. What is meristematic tissue?
9. Where is it located in a typical plant?
10. Distinguish between apical and lateral meristem. Give examples of each.
11. What is apical dominance?
12. Be able to label a cross section of a blade showing the following; spongy mesophyll, palisade mesophyll, upper and lower epidermis, cuticle, stoma, guard cells, vascular bundle(=vein) with xylem and phloem.
13. Be able to label a root lateral section, showing the zones. Describe what happens in each zone.
14. What is the purpose of the root cap?
15. What are the functions of roots? What are the three main types of roots?
16. What is the function of roothairs?
17. How does heartwood differ from sapwood?
18. Is heartwood alive?
19. Why do trees have annual growth rings?