

Biol 1411. Hw. Chapter 4

1. Which of the following cells has a relatively thick wall?
  - A) companion cell
  - B) parenchyma cell
  - C) sclereid
  - D) sieve-tube element
  - E) vascular cambium cell
  
2. Parenchyma cells that develop irregular extensions of the cell wall that greatly increase the surface area are called
  - A) transfer cells.
  - B) sclereids.
  - C) aerenchyma.
  - D) tracheids.
  - E) lenticels.
  
3. In grasses and related plants, intercalary meristems are found in the vicinity of
  - A) axillary buds.
  - B) roots.
  - C) nodes.
  - D) cuticles.
  - E) leaf tips.
  
4. Which of the following is NOT considered a permanent tissue?
  - A) parenchyma
  - B) collenchyma
  - C) epidermis
  - D) cork cambium
  - E) phloem
  
5. Which of the following is a type of sclerenchyma cell?
  - A) companion cell
  - B) sieve-tube element
  - C) procambium cell
  - D) ray cell
  - E) fiber

6. Conducting cells that are open at either end include
- A) sieve cells.
  - B) vessel elements.
  - C) parenchyma cells.
  - D) fibers.
  - E) stone cells.
7. The tissue in which lenticels are formed is
- A) periderm.
  - B) chlorenchyma.
  - C) epidermis.
  - D) cork cambium.
  - E) collenchyma.
8. The fatty substance in the walls of cork cells is
- A) cutin.
  - B) latex.
  - C) suberin.
  - D) pectin.
  - E) cellulose.
9. A tissue composed of thin-walled cells with interconnecting air spaces between them is called
- A) collenchyma.
  - B) chlorenchyma.
  - C) sclerenchyma.
  - D) aerenchyma.
  - E) secretory tissue.
10. Collenchyma cells are most often found adjacent to
- A) the epidermis.
  - B) the xylem.
  - C) the vascular cambium.
  - D) the cork cambium.
  - E) ray cells.

11. Which is a type of epidermal cell?
- A) guard cell
  - B) collenchyma
  - C) trichome
  - D) cork cell
  - E) both [a and c] are correct
12. In which location would an intercalary meristem be found?
- A) apical regions
  - B) base of grass leaves
  - C) tips of leaves
  - D) tips of roots
  - E) shoot tips
13. What is the function of collenchyma tissue?
- A) metabolism
  - B) conduction of food
  - C) provide strength to growing organs
  - D) prevent water loss
  - E) photosynthesis
14. Primary tissues can be traced to their origin in
- A) lateral meristems.
  - B) vascular cambium.
  - C) cork cambium.
  - D) apical meristems.
  - E) intercalary meristems.
15. Which of the following is a meristematic tissue?
- A) parenchyma
  - B) periderm
  - C) cork cambium
  - D) epidermis
  - E) collenchyma
16. Which cell type has a thick and lignified cell wall?
- A) parenchyma
  - B) sievetube
  - C) collenchyma
  - D) sclereid
  - E) trichome

17. Which tissue is derived from the apical meristem?

- A) protoderm
- B) cork cambium
- C) periderm
- D) secondary phloem
- E) both [a and d] are correct

18. The protoderm eventually matures into the

- A) intercalary meristem.
- B) cortex.
- C) periderm.
- D) epidermis.
- E) pith

19. Which is a type of sclerenchyma cell?

- A) tracheid
- B) guard cell
- C) collenchyma
- D) sieve tube
- E) sclereid

20. The ground meristem produces

- A) secondary xylem.
- B) collenchyma.
- C) parenchyma.
- D) cork.
- E) both [b and c] are correct

21. The porous wall regions of sieve tubes are called

- A) pits.
- B) callose.
- C) sieve pores.
- D) perforation plates.
- E) sieves.

22. You would expect to find collenchyma tissue in the
- A) center of the root.
  - B) cortex of herbaceous stems, just underneath the epidermis
  - C) apical meristem.
  - D) mesophyll of leaves.
  - E) both [c and d] are correct
23. Vessels (or vessel members) are different from tracheids because
- A) vessels conduct sugars, tracheids conduct water.
  - B) vessels are living cells, tracheids are dead cells.
  - C) vessels have perforated end walls, tracheids do not.
  - D) vessels have smooth walls, tracheids have perforated end walls.
  - E) vessels conduct sugars, tracheids conduct water.
24. A ground meristem produces a primary tissue.
25. The vascular cambium produces tissues that increase the girth of a plant.