Test Prep Pretest

1. c
2. a
3. c
4. c
5. d
6. b
7. i
8. k
9. l
10. a
11. f
12. c
13. j
14. h
15. g
16. e
17. guard cells
18. shoot, root
19. companion cells
20. tips, roots, stems
21. primary tissues
22. gas, mineral, nutrients
23. sugar, starch, vascular
24. Before a seed can germinate, it must absorb water and oxygen, and experience favorable environmental conditions. Some seeds also require exposure to cold to break dormancy or must be exposed to a process that damages the seed coat, such as passing through the digestive system of an animal, being burned, or falling on a hard surface.
25. Nonwoody stems are flexible and usually green. Epidermis covers these stems, and they have vascular bundles that contain xylem and phloem that are surrounded by ground tissue. Woody stems are stiff and nongreen, and they contain layers of wood. The vascular tissue is arranged in solid cylinders. The center of a mature stem contains heartwood, which consists of xylem that can no longer conduct water, surrounded by sapwood, which consists of xylem that does conduct water. Phloem surrounds the cylinder of xylem. Woody stems are covered by cork. Together, the phloem and the cork make up the bark of a woody stem.

Quiz

SECTION: PLANT TISSUE SYSTEMS

1. e
2. f
3. d
4. c
5. b
6. a
7. g
8. d
9. b
10. a

SECTION: ROOTS, STEMS, AND LEAVES

1. g
2. e
3. f
4. b
5. d
6. a
7. c
8. c
9. d
10. c

SECTION: PLANT GROWTH AND DEVELOPMENT

1. b
2. e
3. f
4. c
5. d
6. a
7. d
8. b
9. b
10. a

Chapter Test (Basic)

1. T
2. T
3. F
4. F
5. b
6. a
7. c
8. b
9. c
10. a
11. mesophyll
12. root cap
13. cork
14. primary
15. secondary
16. meristem
17. leaves
18. Apical
19. heartwood
20. water

Chapter Test (General)

1. b
2. c
3. a
4. c
5. d
6. b
7. c
8. d
9. b
10. d
11. b
12. a
13. b
14. d
15. a
16. c
17. c
18. c
19. b
20. a

Chapter Test (Advanced)

1. c
2. a
3. c
4. a
5. d
6. d
7. d
8. c
9. b
10. b
11. d
12. c
13. b
14. d
15. c
16. c
17. a
18. c
19. d
20. b
21. leaves

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10. a
11. c
12. d
22. mesophyll, ground
23. xylem, phloem, ring
24. Seeds must absorb water and oxygen before they can germinate. The seed coats of many seeds must be damaged before they can let in water and oxygen. Being eaten and partially digested, falling on rocks, or being exposed to fire are some ways that seed coats get damaged. Many other seeds also must be exposed to cold before they can germinate.
25. Growth that causes woody stems to increase in width is called secondary growth, and it occurs as the vascular cambium and the cork cambium add layers of cells to a stem. The plant tissues that develop as a result of secondary growth are referred to as secondary tissues. The vascular cambium produces secondary xylem and phloem. Layers of secondary xylem form wood. The secondary phloem forms the inner layer of the bark. The cork cambium produces cork, which is the outer layer of the bark.

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