

# Ch 13

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97

A

- 1) b
- 3) ~~b~~
- 4) D
- 5) D
- 6) D
- 7) D
- 8) A
- 9) ~~A~~
- 11) D
- 12) D
- 13) C
- 14) A ok
- 15) C
- 16) B
- 17) A
- 18) C
- 19) B -
- 20) C
- 22) B
- 23) A
- 24) ~~A~~
- 25) A
- 26) D
- 27) C
- 28) D
- 29) C
- 30) D
- 31) C
- 32) B
- 33) F
- 34) K
- 36) H
- 37) A
- 39) B

40) D

41) I

42) K

43) G

44) C

45) B

46) D mezzozonic phylum

47) A meteboliphylum

48) E - root cap

49) elongation phylum

50) root hairs

53) The picture on page 5 is right side up. You can tell because the stoma and guard cells are on the bottom. That and the mesophyll with a lot of chlorophyll is on the top.

meristematic

maturataion

**Test 13****Biology****Chapter 13****Multiple Choice** 2 pts

Read the entire item before selecting your answer. Only one letter is correct. Write the letter of your choice in the blank beside the number.

- \_\_\_\_\_ 1. Flowering plants belong to the phylum
- A. Dicotyledoneae. C. Anthoceroophyta.  
B. Anthophyta. D. Coniferophyta.
- \_\_\_\_\_ 2. A stolon is a modified
- A. root. C. leaf.  
B. stem. D. flower.
- \_\_\_\_\_ 3. The sporophyte in the moss is the
- A. egg and sperm. C. protonema.  
B. stalk and capsule. D. leafy shoot.
- \_\_\_\_\_ 4. When the buds on the side of the branch are less dominant than the apical bud, the tree exhibits \_\_\_\_\_ dominance and has a \_\_\_\_\_ branching pattern.
- A. apical/deliquescent C. primary/columnar  
B. superior/deliquescent D. apical/excurrent
- \_\_\_\_\_ 5. A tiny heart-shaped structure that grows from a fern spore is the
- A. sporangium. C. sporangiophore.  
B. protonema. D. prothallus.
- \_\_\_\_\_ 6. In plants, a mature ovary is called a
- A. cotyledon. C. thallus.  
B. flower. D. fruit.
- \_\_\_\_\_ 7. A tree that loses its leaves in autumn is said to be
- A. herbaceous. C. annual.  
B. succulent. D. deciduous.
- \_\_\_\_\_ 8. The prominent generation in the fern is the
- A. sporophyte. C. prothallus.  
B. gametophyte. D. sorus.
- \_\_\_\_\_ 9. The edible structure of a white potato is a
- A. root. C. bulb.  
B. rhizome. D. tuber.
- \_\_\_\_\_ 10. The one characteristic possessed only by members of the phylum Anthophyta is the production of
- A. seeds. C. true roots.  
B. leaves. D. flowers.



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- \_\_\_\_\_ 11. Monocots and dicots are large groups of
- A. ferns.
  - B. conifers.
  - C. mosses.
  - D. flowering plants.
- \_\_\_\_\_ 12. A certain plant produces flowers with the various floral parts occurring in multiples of three. The plant is most likely a
- A. dicot.
  - B. gymnosperm.
  - C. gametophyte.
  - D. monocot.
- \_\_\_\_\_ 13. Many people decorate a member of this phylum for Christmas.
- A. Lycophyta
  - B. Anthophyta
  - C. Coniferophyta
  - D. Hepatophyta
- \_\_\_\_\_ 14. A plant that grows year after year is
- A. an annual plant.
  - B. a biennial plant.
  - C. a perennial plant.
  - D. a herbaceous plant.
- \_\_\_\_\_ 15. Tissues for conducting water and dissolved substances are
- A. cambium tissues.
  - B. meristematic tissues.
  - C. vascular tissues.
  - D. parenchyma tissues.
- \_\_\_\_\_ 16. Cells that are undergoing continuous mitosis are usually found in
- A. vascular tissue.
  - B. meristematic tissue.
  - C. secondary tissue.
  - D. structural tissue.
- \_\_\_\_\_ 17. A leaf in which the blade is divided into more than one part is said to be
- A. compound.
  - B. pinnate.
  - C. palmate.
  - D. netted.
- \_\_\_\_\_ 18. The pine tree releases male reproductive gametes contained in the
- A. seed cone.
  - B. sorus.
  - C. pollen.
  - D. antheridium.
- \_\_\_\_\_ 19. The stalk portion of a leaf is called the
- A. blade.
  - B. petiole.
  - C. tendril.
  - D. stipule.
- \_\_\_\_\_ 20. The "fuzziness" of certain leaf surfaces is due to the presence of
- A. stickers.
  - B. guard hairs.
  - C. epidermal hairs.
  - D. venation.

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21. Which of the following is a characteristic found in leaves that float in water?
- A. very small leaves to retard transpiration
  - B. stomata on upper surfaces only
  - C. absence of veins
  - D. absence of palisade cells
22. Hard, dark, inactive wood is called
- A. sapwood.
  - B. heartwood.
  - C. springwood.
  - D. tannin.
23. A seed sprouts and produces a root that continues to grow as the predominant root. What type of root system does it have?
- A. taproot
  - B. adventitious root
  - C. fibrous root
  - D. prop root
24. Primary growth in a root
- A. increases the length of the root.
  - B. forms secondary xylem and phloem.
  - C. originates at the vascular cambium.
  - D. increases the diameter of the root.
25. A storage tissue in roots, such as in a carrot, is the
- A. cortex.
  - B. xylem.
  - C. epidermis.
  - D. cambium.
26. Secondary xylem and phloem are produced by the
- A. cork cambium.
  - B. apical pericycle.
  - C. meristematic region.
  - D. vascular cambium.
27. Horsetails, club mosses, and whisk ferns are all
- A. vascular with seeds.
  - B. avascular with seeds.
  - C. vascular and seedless.
  - D. avascular and seedless.
28. One can often determine the age of a twig by counting the
- A. leaf scars.
  - B. bundle scars.
  - C. lenticels.
  - D. bud scale scars.
29. Which phylum do ferns belong in?
- A. Bryophyta
  - B. Anthophyta
  - C. Pteridophyta
  - D. Coniferophyta



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- \_\_\_\_\_ 30. Stomata are beneficial to the leaf because they
- A. carry on the process of photosynthesis.
  - B. form a waxy substance to protect the leaf.
  - C. help carry water and dissolved foods.
  - D. regulate the exchange of gases.
- \_\_\_\_\_ 31. The changing weather conditions an oak tree went through as it grew can be determined by making which of the following comparisons?
- A. heartwood compared to sapwood
  - B. hardwood compared to softwood
  - C. springwood compared to summerwood
  - D. bud scale scars compared to bundle scars
- \_\_\_\_\_ 32. Most of the content of the sap in the phloem is water and
- A. mineral ions.
  - B. sugars.
  - C. amino acids.
  - D. proteins.

### Matching 1

1 pt

Match the letter of the term with the description. Write the letter in the blank beside the number. No letter may be used more than once.

- |                     |               |
|---------------------|---------------|
| A. abscission layer | G. palisade   |
| B. cuticle          | H. parallel   |
| C. flower           | I. prop       |
| D. guard cells      | J. root       |
| E. anthocynin       | K. root hairs |
| F. leaf             | L. vine       |
- \_\_\_\_\_ 33. chief photosynthetic structure of seed plants
- \_\_\_\_\_ 34. increases absorptive area of epidermis
- \_\_\_\_\_ 35. nonclimbing adventitious roots
- \_\_\_\_\_ 36. type of leaf venation in monocots
- \_\_\_\_\_ 37. formed across the base of the petiole before the leaf falls in autumn
- \_\_\_\_\_ 38. climbing roots
- \_\_\_\_\_ 39. waxy covering of epidermis on leaves
- \_\_\_\_\_ 40. surrounds a stoma

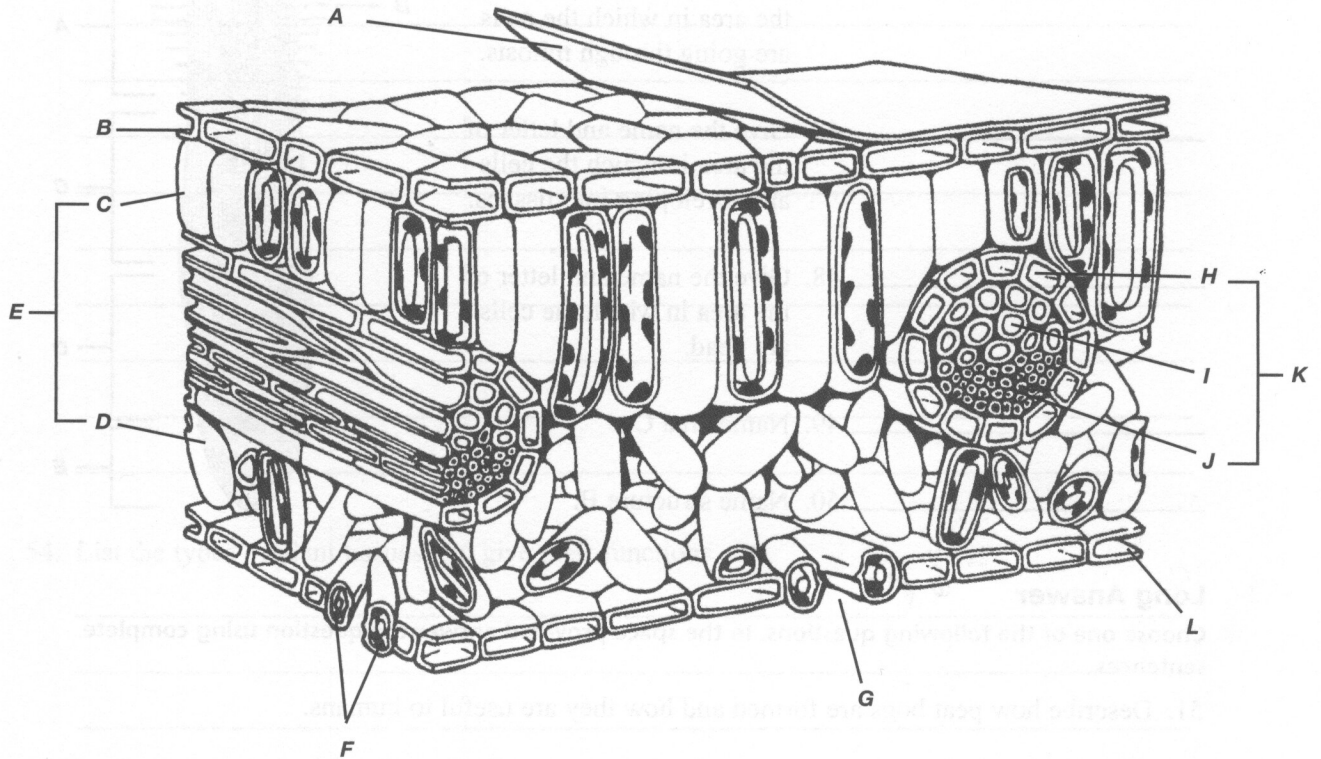
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### Matching 2 *3pts*

The following questions refer to the diagram below. Write the letter of the answer in the blank beside the number. Answers may be used only once.



- \_\_\_\_\_ 41. What letter indicates the xylem?
- \_\_\_\_\_ 42. What letter indicates the entire vein?
- \_\_\_\_\_ 43. What letter indicates a stoma?
- \_\_\_\_\_ 44. Give the letter of the structure that contains the highest amount of chlorophyll.
- \_\_\_\_\_ 45. Give the letter of the structure from which epidermal hairs (though not illustrated on the diagram) would grow.

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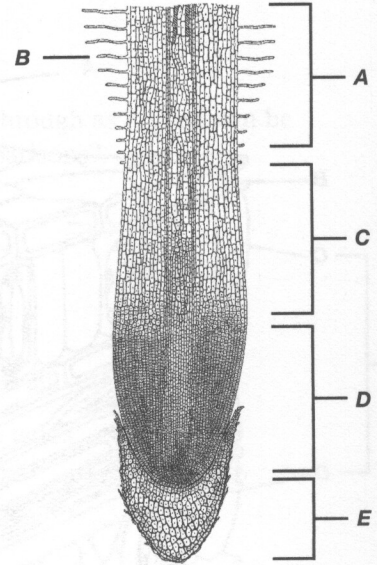
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### Short Answer *3 pts*

The following questions refer to the diagram on the right. Read each question carefully. Write your answer in the blank provided.

- \_\_\_\_\_ 46. Give the name and letter of the area in which the cells are going through mitosis.
- \_\_\_\_\_ 47. Give the name and letter of the area in which the cells are developing into tissues.
- \_\_\_\_\_ 48. Give the name and letter of the area in which the cells are dead.
- \_\_\_\_\_ 49. Name area C.
- \_\_\_\_\_ 50. Name structure B.



### Long Answer *6 pts*

Choose one of the following questions. In the space provided answer the question using complete sentences.

- 51. Describe how peat bogs are formed and how they are useful to humans.

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- 52. What can scientists learn from looking at the cross section of a woody stem?

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