Name:
Date:
Class:

Lesson 13.1: Plant Anatomy and Physiology

Know and Understand

Answer the following questions using the information provided in this lesson.

1. What is the function of ground tissue in plants? (13.1.1)

A. New plant growth
B. Protecting internal plant parts
C. Transporting materials around the plant
D. Performing photosynthesis

Answer:

2. Meristematic tissue in plants _____. (13.1.1)

A. can become any other type of plant tissue
B. is found only in the nodes of plants
C. consists of vascular bundles
D. is found only at the tips of roots and shoots

Answer:

3. Growth arising from the apical meristem is _____. (13.1.1)

A. tertiary growth
B. late-term growth
C. primary growth
D. secondary growth

Answer:

4. The meristem found in the nodes of plants is _____. (13.1.1)

A. lateral meristem
B. intercalary meristem

C. apical meristem

D. primary meristem

Answer:

5. What is the main difference between fibrous roots and taproots? (13.1.2)

A. Fibrous roots are found on woody plants; taproots are found on vegetative plants.

B. Fibrous roots are heavily branched; taproots have one primary root with few lateral branches.

C. Taproots are inedible; fibrous roots can be consumed.

D. Taproots are only present in plants that reproduce sexually.

Answer:

6. Legumes are plants with the ability to convert _____ to a form usable by the plant. (13.1.2)

A. phosphorous

B. potassium

C. nitrogen

D. sulfur

Answer:

7. A potato is an example of a plant with a modified stem called a _____. (13.1.2)

A. corm

B. rhizome

C. stolon

D. tuber

Answer:

8. *True or False?* A strawberry is a tuber that uses stolons to create additional plants. (13.1.2)

Answer:

9. Which section of the leaf is responsible for most photosynthesis? (13.1.2)

A. Palisade layer
B. Cuticle
C. Spongy mesophyll
D. Stomata

Answer:

10. A flower that contains petals, pistils, and stamen would be considered _____. (13.1.3)

A. perfect
B. imperfect
C. staminate
D. pistillate

Answer:

11. A sunflower has a type of composite flower called a _____. (13.1.3)

A. disk flower
B. ray flower
C. pistillate flower
D. combination composite flower

Answer:

12. Which of the following is a characteristic of a monocot plant? (13.1.4)

A. It has two seed leaves (cotyledons) emerging.
B. The flower parts are in multiples of four or five.
C. The vascular bundles are arranged in a ring.
D. It has branched veins.

Answer:

13. What happens in the dark reaction portion of photosynthesis? (13.1.5)

A. Light energy is converted to chemical energy.
B. Sugar molecules are produced from energy molecules.

C. Glucose molecules are broken down.

D. Water is released.

Answer:

14. Which cellular reproduction is involved in the asexual reproduction of plants? (13.1.5)

A. Meiosis

B. Mitosis

C. Aotisis

D. Merisemesis

Answer:

15. How many pollen grains are required to travel down the pollen tube? (13.1.5)

A. 1

B. 2

C. 3

D. 4

Answer:

16. Which chemical elements are found in photosynthesis? (13.1.5)

Answer:

17. What factors would a greenhouse grower adjust to increase the rate of photosynthesis in their greenhouse plants? (13.1.5)

Answer: