



OREGON STATE UNIVERSITY  
EXTENSION SERVICE

## Master Gardener™ Program

NAME: \_\_\_\_\_

### **BOTANY                      CHAPTER 1**

References:            (1)    MG Sustainable Gardening Handbook, Chapter 1

1.    The tissue in the stem of a plant that has the ability to continually produce new cells is the:
  - a. xylem
  - b. phloem
  - c. heartwood
  - d. cambium

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2.    Photosynthesis is:
  - a. an energy-releasing process
  - b. an energy-storing process
  - c. the sum total of all biochemical activity in the plant
  - d. a process by which plants make light

Reference:

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3.    During the cold weather, a plant growing in a container may be more likely to die than the same species of plant growing in the ground. This could be explained by the fact that:
  - a. stems are hardier than vegetative buds
  - b. leaf buds (vegetative buds) are hardier than flower buds
  - c. stems are often much hardier than roots
  - d. roots are usually hardier than stems

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4. To induce poinsettias to bloom for Christmas it is recommended to provide the plants with long nights of 14 hours of darkness (uninterrupted by artificial lights) starting in October. Poinsettias are:
- a. short-day plants
  - b. long-day plants
  - c. day-neutral plants
  - d. night-neutral plants

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5. The root systems of most trees and shrubs:
- a. are usually concentrated below the top 12" of soil
  - b. have prominent taproots
  - c. never spread beyond the drip line
  - d. often spread beyond the drip line

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6. An avocado fruit will ripen faster when enclosed in a paper bag. This happens because the fruit gives off a chemical gas that is a plant hormone. Higher concentrations of this plant hormone accumulating inside the bag speed the ripening of the fruit. This plant hormone is:
- a. auxin
  - b. cytokinins
  - c. gibberellins
  - d. ethylene

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7. When you plant the seeds from a Golden Delicious apple, will the fruit from those new plants be Golden Delicious apples? Why or why not?

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8. When you plant a new lawn you might have four different grasses in the mix. After ten years, will the proportion of the original grasses be the same? Why?

Will there be other species found in the lawn?

What process is at work in the lawn?

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