

NC TREE STEWARDS TRAINING PROGRAM

Quiz #1

This is an “open book, notes, videos, whatever you want to use” type of quiz. Please note all the resources on Tree Steward web page: www.acftrees.org/treesteward



It is not meant to be tricky in any way, just straight forward questions - things you really should know to be a Tree Steward. You will be graded, and the intent is for everyone to get a 70% or higher grade in the course to qualify as a NC Tree Steward

Please print this out and complete. If you can do so by Saturday (Oct 14), please bring it with you to our first in-person class. Otherwise, you can bring it with you to our next in-person class Saturday (Oct 28).

If you have any questions, please feel free to email me at bfair@ncsu.edu

Have fun ;-)

Name: _____

Email address: _____

Circle the correct answer.

Tree Anatomy

1. The cambium is the region of cell division that gives rise to:
 - a. phloem
 - b. xylem
 - c. cork
 - d. both a and b

2. True or false- All tree species have a taproot

3. True or false- Evergreen trees never lose their needles

4. Sapwood has which of the following characteristics
 - a. It is mostly alive, has a dark color and stores energy
 - b. It is mostly dead, has a dark color and stores energy
 - c. It is mostly dead, contributes to biological activity of the tree, and is dark colored
 - d. It is mostly alive, has a light color, and stores energy

5. What anatomical feature can indicate how much a twig elongated in a year (growing season)?
 - a. Bud scale scar
 - b. Node
 - c. Lateral bud
 - d. Leaf scar

6. True or false - the branch collar is important to locate when making a pruning cut.

7. Cutin is:
 - a. A waxy substance that protects the leaf from drying and disease-causing organisms
 - b. A waxy layer found in the branch collar that protects the tree from disease-causing organisms
 - c. A hard shell that protects the leaves
 - d. A gooey substance found between your toes

8. True or false - A Chinese pistache has compound leaves.

9. The "critical root zone" is
 - a. The area where a tree drips sap
 - b. Equals the dripline
 - c. Is the area of roots equal to the height times 0.4
 - d. The area to avoid construction activities
 - e. Both c. and d.

10. Mycorrhizae are:
 - a. Specialized roots
 - b. Symbiotic relationship between roots and fungi
 - c. Saprophyte
 - d. Nitrogen fixer

Tree Biology and Physiology

1. Photosynthesis takes place in:
 - a. parenchyma cells
 - b. lenticels
 - c. chloroplasts
 - d. stomata

2. What is the process that moves water in a tree?
 - a. Osmosis
 - b. Diffusion
 - c. Transpiration
 - d. Respiration
3. True or false- Roots are a “sink” for carbohydrates.
4. Abscissic acid is key in what process?
 - a. Shutting down the stomata when soil dries
 - b. Apical dominance
 - c. Plays a role in dormancy
 - d. Tropism
 - e. Both a. and c.
5. True or false- Ginkgo is monoecious

Tree Identification and Selection

1. Which of the following is the correct scientific name for sugar maple?
 - a. *Acer rubrum*
 - b. *Acer saccharinum*
 - c. *Acer saccharum*
 - d. *Acer sweetums*
2. An elm has what form or habit?
 - a. Oval
 - b. Rounded
 - c. Vase-shaped
 - d. Pyramidal
3. True or false- A lateral bud controls apical dominance
4. Which structure allows the movement of gases in and out of trees?
 - a. Pith
 - b. Leaf scar
 - c. Scales
 - d. Lenticels

5. Samara are found on what tree species?
 - a. Ash
 - b. Red maple
 - c. Tulip tree
 - d. All of the above

6. Which tree has exfoliating bark?
 - a. Black cherry
 - b. River birch
 - c. Longleaf pine
 - d. White oak

7. Hardiness zone is based on which of the following?
 - a. Average minimum temperature
 - b. Average minimum night temperature
 - c. Extreme low temperature
 - d. Average high temperature

8. A site evaluation should consider which of the following?
 - a. Location of your Uncle's house
 - b. Location of trees and other vegetation
 - c. The dog house
 - d. None of the above

9. Which of the following is a means of propagating trees?
 - a. Cuttings
 - b. Grafting
 - c. Layering
 - d. Seedlings
 - e. All of the above

10. Which of the following trees you purchase for planting have soil surrounding the root ball?
 - a. Bare root
 - b. Container-grown
 - c. Ball and burlapped
 - d. Seedlings

Soil and other environmental factors

1. Texture describes this characteristic of soil
 - a. Sand, silt and clay
 - b. Loam content
 - c. Proportion of sand, silt and clay
 - d. How soil feels
2. Soil pH measures what?
 - a. Soil ion concentration
 - b. The logarithm of hydrogen ion concentration
 - c. The amount of acid in a soil
 - d. The amount of lime in the soil
3. The pH where all nutrients are readily available is
 - a. 6.5
 - b. 7.5
 - c. 5.5
 - d. 7.0
4. Good soil structure has which of the following characteristics?
 - a. Low bulk density
 - b. Good tilth
 - c. Good water movement
 - d. Good aggregation
 - e. All of the above
 - f. None of the above
5. True or false- A clay type soil has a lower cation exchange capacity than a sandy soil.
6. True or false- The phenomenon known as re-reflected heat can lead to low humidity.
7. Rapid fluctuations of wood temperatures can lead to
 - a. Sunscald
 - b. Frost cracks
 - c. Galls
 - d. None of the above
 - e. Both a. and b.
8. Bark growing between branch unions or codominant stems can lead to
 - a. Decay
 - b. Over-extended limbs
 - c. Branch failure
 - d. U-shaped branch unions