1. Tree roots have been found growing six times the distance of their branch spread. Most roots grow out to about_______ times their branch spread and are found in the top 12 to 18 inches of soil.

2. The most limiting factor to tree root growth is__________.

3. If heavy equipment travels over soil, it compresses it so less ______is available for the roots. Roots cannot survive in highly compacted soil.

4. Trees can die very slowly from soil compaction. It may take as long as_______years for a tree to die.

5. True or False. A trunk with a crook in it is just as strong as a straight one.

6. Topping is______ is not (circle one) a recommended practice and can make a dangerous tree. When pruning, flush cuts are not good.

7. Always prune to the ______________. Wound dressing does not help the tree.

8. When planting a tree, __________is better than deep. Irrigate the tree daily as it was in the nursery for the first 10 weeks.

9. Trees should__________ be pruned when being transplanted to compensate for root loss.

10. Tree fertilizer does or does not need to be injected into the soil. The right tree for the spot does not need_______ to be healthy.

11. Fusiform rust is a fungus that primarily infects__________ and __________ pines. Once in the trunk of the tree you cannot cure it. Pruning infected branches or removal of all infected small trees or larger trees that pose a serious threat to breakage is recommended.

12. There are five kinds of pine beetles in this area that commonly attack our pine trees. Of these bark beetle species, the______________ are the most frequently observed in association with pine tree mortality in Florida. When pine beetles are discovered, you will usually lose those trees. The key point is to keep your pines from being too thick and remove the infested trees to keep them from raising more beetles.

13. Ambrosia beetles usually only infest weakened and dying trees. When a tree has been attacked by Ambrosia beetles, you will usually see ________ at the base of the tree. Once you see the sawdust it’s often too late.

14. True or False. Many insects and diseases are food for other animals. A good example is the yellow billed cuckoos whose diet is large insects, especially caterpillars._______

15. Eastern horned gall wasps (Callirhytis quercusclaviger) primarily infect________________ on high, dry, sandy (infertile) sites. (hint, googling scientific names often gets you to a good site quickly)
16. Many insects have times of the year when they are most prevalent like Psocids or 'barklice' on trees in August. Psocids are insects that feed on ____________debris on tree bark and are harmless to plants and no control is necessary.

Stress = Insects and Diseases = Decline or Death