

**2012 Cullman County Master Gardener Class  
Plant Propagation  
Study Guide**

1. Why do you want to propagate plants? **To reproduce a desired plant or to share an heirloom plant with others.**

2. Name 5 different ways we can propagate plants?

**Division**

**Bulbs and Corms**

**Layering**

**Leaf Cuttings**

**Seeds**

**Stem Cuttings**

**Budding**

**Grafting**

**Tissue Culture**

3. Name a plant that you can use division to propagate?

**You can use division to propagate most anything with a clumping type of growth habit. Blueberries, sweet shrub, liriope, and daylily**

**True or False**

4. The longer we store the seeds the better the germination percentage will be. **False**

5. A master gardener can not hybridize a plant at home. **False**

6. It is better to use the rich soil from the woods to germinate seed. **False**

7. Some plants may root better at a particular time of year. **True**

8. If you do not have a rooting hormone do not try rooting anything. **False**

9. In whip grafting, the scion wood needs to be the about the same size as the root stock. **True**

10. Define seed stratification- (in simple terms) **Giving the seed cold treatment in moist soil. Usually for 90 days but that varies.**
11. Define seed scarification.  
**scaring the seed coat on hard seed coated seeds before planting**
12. What is asexual reproduction? **The use of vegetative plant parts (stems, leaves, and roots) to produce offspring genetically identical to the parent plant; also called vegetative reproduction.**
13. What are the optimum conditions for storing seed? **40 degrees F and 30% to 35% relative humidity (dry and cool) like the crisper in a refrigerator**
14. Explain what grafting is. **A form of vegetative propagation where two distinct plants are joined together; inserting a piece of one plant into another plant in order for it to grow there.**
15. Tip and medial are the two types of stem cuttings.
16. Cuttings are also described based on the time of the year they are taken. List the name of each cutting and describe them and tell when they are collected.  
**Softwood - They are cuttings taken from soft succulent new growth in the spring.**  
**Semi hardwood – They are cuttings taken in mid to late summer when tissue is beginning to harden but is not completely woody. Semi hardwood cuttings are flexible but do break with added pressure.**  
**Hardwood - cuttings are taken from completely woody, or hardened, tissue and are generally taken in winter. Hardwood cuttings can be taken for both evergreen and deciduous plants.**
17. The scion is the upper part of the graft that will form the shoot. It is generally selected for specific horticultural characteristics.
18. The stock, also known as the understock or rootstock, is the lower portion of a graft.

19. What is tip or simple layering? **The short section of the stem is bent over to the surface of the soil or substrate and buried. The remains exposed. The buried portion of the stem should be wounded and can be treated with rooting hormone to help stimulate rooting.**
20. Tissue Culture, or micropropagation, is a laboratory method of propagating a tremendous number of plants from a small amount of parent material.