1. Because pruning removes leaves and reduces the overall photosynthetic capacity of a tree, it also reduces <u>growth</u>.

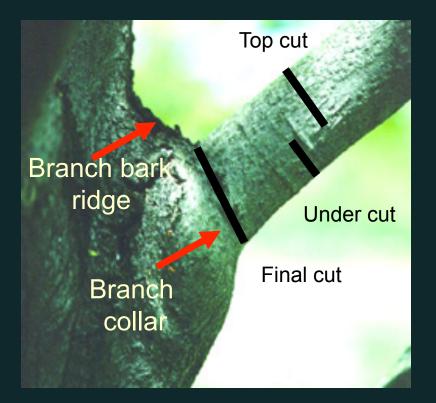
2. Name five common reasons for removing limbs from trees.

- a. Dead
- b. Diseased
- c. Hazardous
- d. Crossing limbs
- e. Weight reduction

3. To maximize flowering, plants that bloom on current season's wood should be pruned prior to <u>leaf emergence</u>, or in the summer after bloom has occurred. Plants that bloom on the last season's wood should be pruned just after <u>bloom</u>.

4. True/False – Trees that tend to "bleed" should never be pruned in the early spring because doing so is likely to cause a major decline in vigor.

5. Label the branch bark ridge and the branch collar on this drawing. Show where the undercut, top cut, and final cut should be made removing the limb.



 Included bark is the bark that gets pushed inside the branch union as two branches grow and develop.

 The swollen area at the base of a branch where it arises from the trunk is called the branch collar.

Two limbs that arise from apical buds on the same stem are known as
 <u>codominant stems/branches</u>, both direct extensions of the stem below.

9. True/False – In the absence of included bark, the relative size of a branch in relation to the trunk is more important for strength of branch attachment than is the angle of attachment.

10. True/False – codominant stems can represent a structurally unstable branch configuration, especially if there is included bark in the junction.

 When training young trees, a single central leader should be selected and competing leaders should be removed or <u>subordinated</u>.

12. True/False – As a general rule, mature trees are less tolerant of severe pruning than juvenile trees.

13. When practical, temporary lower branches should be left on a young tree to help develop trunk <u>taper</u>.

14. When pruning palms, if older, live fronds must be removed, avoid removing fronds that initiate above <u>horizontal</u>.

15. <u>Crown</u> <u>cleaning</u> is the removal of dead, dying, and weak branches from a tree.

16. True/False – even the removal of 25 percent of the canopy of a large, mature tree can eb stressful to the tree.

17. <u>Thinning</u> includes crown cleaning as well as selective removal of branches to increase light penetration and air movement into the crown of the tree.

 Caution must be taken not to create an effect known as <u>lion tailing</u>, which is caused by excessive removal of inner laterals and foliage.

19. Three adverse effects of lion tailing are:

- a. Uneven foliage distribution
- b. Sunburned bark tissue
- c. Weakened branch structure

20. <u>Reduction</u> is best accomplished by cutting limbs back to laterals that are large enough to sustain the remaining branch and assume the terminal role.

21. Three adverse effects of topping include:

- a. Excessive watersprout development
- b. Weak branch attachment
- c. Unnatural growth form

22. Pruning when trees are <u>dormant</u> can minimize the risk of pest problems associated with wound entry and allow trees to take advantage of the full growing season to begin closing compartmentalizing wounds.

23. True/False – Research on wound dressings shows that their use prevents decay.

24. <u>Plant growth regulators</u> are substances, usually effective in small quantities, which enhance or alter the growth and development of a plant.

25. Name two ways plant growth regulators are used by arborist.

a. Reduce growthb. Restrict sucker growth