STUDY GUIDELINES FOR LICENSE EXAM – TSL (TREE SURGERY)

The examination starts at 9:00 a.m. and typically requires approximately 3-4 hours to complete. All exams must be completed and turned in by 3:00 p.m. Applicant will be notified of his/her results within 3 weeks. Applicant must make a passing grade of 70% on each part before a license will be issued.

The site of the examination will be accessible to the disabled. For applicant with a disability that will require special accommodations, please notify Bureau of Plant Industry office 10 days in advance.

The Mississippi Bureau of Plant Industry is providing this list of suggested topics to aid in studying for the examination. Websites (universities, extension service, and industry specific sites) may provide more detailed information.

Applicant should have knowledge of the subject matter and be familiar with the topics in this outline before taking the license exam. This is not a guarantee that all of the topics listed, or only the topics listed will be included on the licensing examination.

1. You should be thoroughly familiar with Bureau of Plant Industry Regulations Governing Tree Surgeons. A copy of the Regulations can be found at The Mississippi Department of Agriculture and Commerce, Bureau of Plant Industry website, https://www.mdac.ms.gov/wp-content/uploads/11-Regulation-of-Professional-Services.pdf. Regulations governing Tree Surgery are found in Subchapter 05, pages 37-43.

   Topics include, but are not limited to:

   - Definitions
   - Licensing requirements
   - Licensing renewal requirements
   - Violations
   - Record keeping requirements
   - Insurance requirements
   - Licensed operators
   - Employees
   - Equipment
   - Waiver

2. Basic terminology:
   - Photosynthesis
   - Branch bark ridge
   - Scaffold limbs
   - Hedge
   - Xylem
   - Phloem
   - Heading
   - Stomata
   - Drop-crotching
   - Wound
   - Decay
   - Heartwood
   - Strong compartmentalizer
   - Vascular cambium

3. Monocotyledons vs. dicotyledons
4. Importance of scientific vs. common names
5. Function(s) of heartwood
6. Urban soils and tree growth
7. Soil pH and its effect(s) on the availability of plant nutrients
8. Pruning percentage for a mature tree
9. Structural pruning for Excurrent trees (*Pinus spp.*)
10. Pros and cons of trees with a round-shaped crown

11. Branch protection zone
12. Pruning:
    - Steps of pruning a tree branch
    - Minimizing sap leakage from cuts
    - Structural pruning
    - Result(s) of deviating from pruning standards
    - Use of wound dressing when pruning
    - Appropriate time of year to prune
    - Frequency of pruning
    - Use of flush cuts
13. Pros and cons of fertilizing trees before and after construction
14. Cabling and/or bracing
    - Use of lag screws and tightness of screws to minimize tree injury
    - Use of triangular washers on the ends of rods
    - Angle (degrees) of cabling/bracing a weak horizontal branch
15. Pros and cons of injuring or removing the branch collar
16. Function(s) of tree roots
17. Pros and cons of fertilizing trees by tree injection
18. Presence of suckers or waterspouts
19. Function(s) of stem and tree trunk
20. Use of climbing spurs when pruning oaks during dormant season
21. Purpose(s) of removing branches on young trees during the first 2-4 years in the landscape