**Sample Registration Exam Questions.** The samples provided below are reasonably representative of some of the questions found on the Forestry Registration Exams. Most of the questions were asked on an exam at one time or another. The questions are intended as examples, <u>not</u> an exhaustive study guide. All possible types, categories, and styles of questions are <u>not</u> included.

## Applicants attempting either the Pre-qualifying or Qualifying Exams might find questions similar to the following.

- 1. How many standard cords are found in a neat stack of wood measuring 20 feet long, 4.5 feet wide, and 8 feet high?
- 2. Name 5 factors that should be considered when selecting loblolly pine trees to serve as seed trees.
- 3. Complete the chart below to compare and contrast the advantages and disadvantages of using variable and fixed plots.

Type of plot	Advantages	Disadvantages
Variable plot		
Fixed plot		

- 4. Construct a graph showing the typical diameter distribution of an even-aged stand. Label the axes.
- 5. How can an attack by southern pine beetles be distinguished from an attack of the less problematic turpentine borer?
- 6. A dot grid contains 16 dots per square inch. An air photo has a scale of 1:10,000. How many acres are found in a tract of land on the photo that contains an average of 41 dots?
- 7. Why do white oak fence posts usually last longer than red oak posts?
- 8. Complete the chart below to distinguish among the 3 most common species of *Fraxinus* in North Carolina.

Character	F. americana	F. pennsylvanica	F. caroliniana
Leaf margin			
Fruit shape			
Site conditions			
Mature size			

- 9. A 35-acre woodlot containing white oak is expected to sell for \$7,050/ac in 5 years. A local timber buyer has offered to purchase the woodlot today for \$6,200/ac. Interest rates are currently 6% compounded annually. If the goal is financial return, should the landowner sell today? Show your work.
- 10. The data below were collected on an 18-acre stand using 1/5-acre fixed plots. Construct a stand table.

Trees/plot by dbh class				
Plot#	8"	10"	12"	14"
1	2	5	5	1
2	3	4	4	2
3	0	1	5	4
4	2	4	0	3
5	1	3	5	1

## Applicants attempting the Qualifying Exam might find questions similar to the following.

- 1. We often observe that thinning increases growth. Yet except for pre-commercial thinning, most stands candidate for thinning are at or near biological maturity, and little or no further increase in total stand biomass is possible. Biologically speaking, what does thinning really accomplish?
- 2. Determine the number of 1/5-acre fixed plots needed to calculate the average number of cords per acre within 5 percent at the 95 percent confidence level in a stand of 40 acres. Calculated from a pre-cruise of 7 plots, the mean = 10.1 cds/ac and the variance = 1.9. Show your work.
- 3. What are Histosols? What factors must be considered when growing trees on these sites?
- 4. Name four issues that must be considered when constructing a temporary skid trail across a perennial stream in order to meet the performance standard in the Forest Practices Guidelines Related to Water Quality.
- 5. What combination of weather and fuel conditions would usually produce an effective, but safe, understory prescribed burn of a 35-year old loblolly pine plantation that has never been burned before.
- 6. The Weeks Act of 1911
  - a. created the National Forests
  - b. mandates public review of management plans.
  - c. regulates the sale of endangered species.
  - d. helped fund land-grant forestry schools.
  - e. requires fair-market value for timber sales on federal land.

- 7. Are any forestry activities specifically exempted from regulation under Section 404 of the Clean Water Act? If yes, which ones? If no, what is the maximum penalty for violations?
- 8. After thinning, the basal area of a 40-year old stand was reduced to an average of 107 sq ft/acre, and the average stem diameter was increased to 14 inches. How many trees remain? What is the average spacing between trees? Show your work.
- 9. Name and distinguish among the five basic types of thinning. For each method be certain to (a) indicate the purpose and (b) show which portion of the pre-thinning diameter distribution graph is removed.
- 10. The ANNUAL cost of maintaining fire lines surrounding a 50-acre sycamore plantation is \$12.50/ac/yr. Current interest rates are 4% compounded annually. What is the total cost of maintaining the lines over the length of the rotation of 20 years?