

**GEOGRAPHIC INFORMATION SYSTEMS
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***** EXAMINATION *****

LOAD AND RESISTANCE FACTOR DESIGN FOR STRUCTURAL GLUED LAMINATED TIMBER

1. **Resistance is used to refer to:**
 - a) member capacities
 - b) limit state material properties
 - c) a factored allowable stress
 - d) both b and c

2. **Strength refers to:**
 - a) member capacities
 - b) limit state material properties
 - c) compression
 - d) both a and b

3. **If load-span criteria is satisfied, proceed:**
 - a) by selecting a trial size
 - b) by determining design capacities
 - c) by determining baseline capacities
 - d) by using the load-span tables

4. **Structural glued laminated timber is also known as:**
 - a) creosote
 - b) plywood
 - c) glulam
 - d) waferboard

5. **Dry lumber used for glued laminated timber is usually:**
 - a) 1/2" or 3/4" thick
 - b) 3/4" or 1" thick
 - c) 1" or 2" thick
 - d) 2" or more thick

6. **Softwood species used for glued laminated timber include:**
 - a) Southern Pine
 - b) Post Oak
 - c) Yucca
 - d) Mesquite

7. **Hardwood species used for glued laminated timber include:**
- a) Cottonwood
 - b) Red Oak
 - c) ash
 - d) Swamp Willow
8. **The three appearance classifications of glued laminated timber are:**
- a) first, second, and third
 - b) light, normal, and heavy
 - c) premium, architectural, and industrial
 - d) flexible, normal, and stiff
9. **Economical spans for tie arches for glulam framing systems:**
- a) vary from ten to one hundred feet
 - b) vary from forty to eighty feet
 - c) vary from fifty to ninety feet
 - d) vary from fifty to two hundred feet
10. **Economical spans for girders for glulam framing systems:**
- a) vary from ten to one hundred feet
 - b) vary from forty to eighty feet
 - c) vary from fifty to ninety feet
 - d) vary from fifty to two hundred feet
11. **Economical spans for heavy pitched trusses for glulam framing systems:**
- a) vary from ten to one hundred feet
 - b) vary from forty to eighty feet
 - c) vary from fifty to ninety feet
 - d) vary from fifty to two hundred feet
12. **The reference radial tensile strength for Alaska Cedar in wind is:**
- a) 0.121 ksi
 - b) 0.153 ksi
 - c) 0.181 ksi
 - d) 0.193 ksi
13. **The reference radial tensile strength for Southern Pine in wind is:**
- a) 0.121 ksi
 - b) 0.153 ksi
 - c) 0.181 ksi
 - d) 0.193 ksi
14. **The load condition coefficient for a cantilever beam is:**
- a) 0
 - b) 1
 - c) 2
 - d) 4

15. **Increasing the thickness of lamination:**
- a) decreases the curvature factor
 - b) increases the curvature factor
 - c) has no effect on the curvature factor
 - d) may increase or decrease the curvature factor
16. **Increasing the radius of curvature of the inside face,**
- a) decreases the curvature factor
 - b) increases the curvature factor
 - c) has no effect on the curvature factor
 - d) may increase or decrease the curvature factor
17. **Wood ignites at about:**
- a) 200 degrees Fahrenheit
 - b) 320 degrees Fahrenheit
 - c) 480 degrees Fahrenheit
 - d) 700 degrees Fahrenheit
18. **Wood chars at the rate of:**
- a) 1/40 inch per minute
 - b) 1/20 inch per minute
 - c) 1/10 inch per minute
 - d) 1/4 inch per minute
19. **Cross-sectional property tables list:**
- a) moments of inertia
 - b) beam depth
 - c) section modulus
 - d) All of the above
20. **Cross-sectional property tables list:**
- a) temperature
 - b) radii of gyration
 - c) specific gravity
 - d) tensile strength

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