

ENVIROTHON 2002 FORESTRY

1. Identify the trees marked A, B, C, D, and E by common name. (2 pts each)
2. Identify the trees marked A, B, C, D, and E by scientific name. (2 pts each)

Tree	Common Name	Scientific Name
A.	_____	_____
B.	_____	_____
C.	_____	_____
D.	_____	_____
E.	_____	_____

3. Name one product for which the trees marked A, B, and E are used. (1 pt each)

Tree	Product
A.	_____
B.	_____
E.	_____

4. Using trees marked A, B, C, D, and E determine the dominant and co-dominant trees. (2 pts)

- a. Dominant _____
- b. Co-dominant _____

5. Using the clinometer and 100-foot tape, measure the total merchantable height of the tree marked **B** to the nearest 8-foot. (Merchantable is determined by a 4-inch top.) (2 pts) _____

6. Estimate the dbh of trees marked A, B, and C within a 2-inch diameter class. (1 pt each)

Tree	Dbh
A.	_____
B.	_____
C.	_____

7. Dbh is defined as: _____ (1 pt)

8. Name the pines native to Wisconsin and the number of needles in a bundle

Tree (2 pts)	# of Needles (1 pt)
_____	_____
_____	_____
_____	_____

9. Thinning a mixed hardwood stand by removing all the trees greater than 15" dbh will improve the stand genetics and increase natural regeneration. (True or False) (1 pt) _____

10. Explain the impact the thinning method in question 9 would have on the residual stand. (5 pts)

11. Match the following tree species with the PRIMARY method of regenerating a stand. (1 pt each)

#	REGENERATION METHOD	#	TREE SPECIES
1	Planting		Jack Pine
2	Clearcut w/ scarification		Aspen
3	Clearcut w/o scarification		Red Pine
4	Shelterwood or Seed Tree		Northern Red Oak

12. If you see a large white moth flying in the fall, it is a gypsy moth (True or False) (1 pt) _____

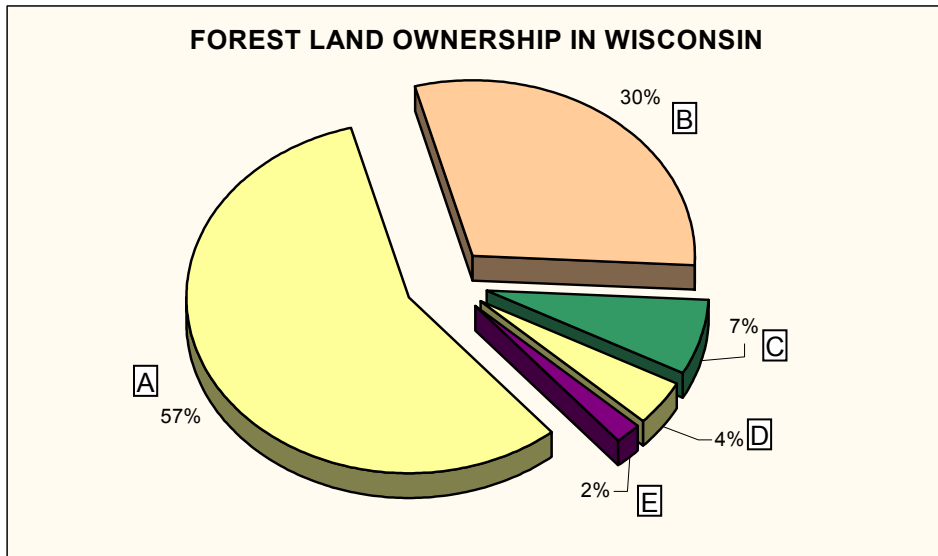
13. This element is a beneficial by-product of photosynthesis. (2 pt) _____

14. A cord of wood equals _____ cu. ft. (1 pt)

15. What is the apical meristem? Circle the correct answer. (1 pt)

- a. a dormant shoot
- b. an epicomic shoot
- c. stem elongation tissue

16. The chart below shows the current percentages of forestland ownership in Wisconsin. In the table below the chart, place the letter for each percentage next to the correct category of forestland ownership in Wisconsin. (1 pt each)



Letter	Ownership
	Native Americans
	Public Lands
	Private Landowners
	Forest Industry Companies
	Non-Forest Industry Companies

17. In the table identify the parts of the tree using the chart below. (1 pt each)

Letter	Term	
_____	Phloem	
_____	Bark	
_____	Xylem	

18. Oak wilt is a serious problem in the state. (1 pt each)

- Name one way oak wilt is transmitted. _____
- What is the time period during which cutting of oak in oak wilt areas is restricted?

- Which oak group is most susceptible to oak wilt? _____

19. Reasons to leave trees along small streams and creek include: (circle all that apply) (1 pt)
- a. moderate water temperature fluctuations
 - b. provide woody debris and leaf fall into water
 - c. reduce runoff from adjacent fields
 - d. provide erosion control
20. What are the three macronutrients needed by trees? (3 pts) _____
21. Tree species which occupy areas first after disturbance are considered: (1 pt)
- a. invasive species
 - b. pioneer species
 - c. exotics species
22. Examples of beneficial mutualism include: (2 pts)
- a. mistletoe
 - b. mychorrhizae
 - c. lichens
 - d. epiphytes
23. The alternate host for white pine blister rust is (1 pt) _____
24. What is best time of year to harvest a stand of trees with a high water table and why? (2 pts)
- _____

25. Match the tree species best suited to the site (only one site per species) (5 pts)

#	SITE	#	TREE SPECIES
1	Floodplain		Jack Pine
2	Excessively drained sand		Sugar Maple
3	Well drained sand		Red Pine
4	Moderate to moderately well drained sand		White Pine
5	Poorly drained loam		Silver Maple
6	Rich mesic silt loam		Black Ash

26. Pruning of pines can be done: (1 pt)
- a. Only in winter during the dormant season
 - b. Any time of year
27. MBF stand for _____ board feet. (1 pt)

28. Pruning of fruit trees is best done: (1 pt)

- a. Before the spring buds flower
- b. After the fruit matures in the summer
- c. Only in winter during the dormant season

29. Name two ways to design a timber sale to keep it wildlife friendly (3 pts)

30. Which of the following are fire dependent or fire responsive species? (1 pt)

- a. Oak
- b. Jack Pine
- c. Red maple
- d. Black ash

31. Name two federally endangered species, which are dependent on young jack pine stands? (2 pts)

- a. _____
- b. _____

32. Determine which of the following trees is the fastest maturing. (1 pt.)

- a. jack pine
- b. white pine
- c. tamarack
- d. northern red oak

33. Determine which of the following trees lives the longest. (1 pt)

- a. jack pine
- b. white pine
- c. tamarack
- d. aspen

34. BMP's stands for: (1 pt)

- a. Better Management Policies
- b. Best Management Practices
- c. Basic Mensuration Procedures

35. Conifers exhibit which of the following? (1 pt)
- geotropism
 - heliotropism
36. A northern hardwoods stand would most typically include: (1 pt)
- elm, silver maple, hackberry, and willow
 - ash, beech, maple, and oak
 - jack pine, oak, and aspen
 - cedar, hemlock, yellow birch, and ash
37. A sandy outwash plain stand would most typically include: (1 pt)
- elm, silver maple, hackberry, and willow
 - ash, beech, maple, and oak
 - jack pine, oak, and aspen
 - cedar, hemlock, yellow birch, and ash
38. A floodplain forest stand would most typically include: (1 pt)
- elm, silver maple, hackberry, and willow
 - ash, beech, maple, and oak
 - jack pine, oak, and aspen
 - cedar, hemlock, yellow birch, and ash
39. A selective harvest every 10-15 years would be appropriate silviculture for: (1 pt)
- a jack pine stand
 - a northern hardwood stand
 - an aspen stand
40. Non-commercial practices in a timber stand include: (Circle all that apply) (1 pt)
- Thinning
 - TSI
 - Pruning
41. Which one of the species below is being affected by a widespread canker in Wisconsin? (1 pt)
- Oak
 - Elm
 - Butternut