

Science Olympiad
Forestry Stations
2022 Seven Lakes Invitational Tournament



Station 1

1. (1 point) All tissues external to the _____ are known as the bark.
2. (1 point) The growth of the plant body's diameter is known as _____.
3. (4 points) What causes the triple response and what are its 3 effects on the plant's growth?
4. (1 point) A _____ plant species contains individuals with both male and female flowers.
5. (1 point) Why are the ovulate cones often found higher on trees than staminate cones?
6. (2 points) The dominant stage of most trees' life cycle is the _____. This process of having both a haploid and diploid stage is known as _____.
7. (2 points) A normal megagametophyte in angiosperms is found in the _____ and contains _____ cells.

Station 2

8. (1 point) True or False: Trees are a taxonomic group.
9. (1 point) The World Tree of Norse mythology, Yggdrasil, is what kind of tree?
10. (1 point) Living root bridges are most common in which country?
11. (2 points) What is the name of the tree thought to be the world's largest?
12. (1 point) True or False: It is possible for tree sap in a maple tree's roots to cause it to explode.
13. (1 point) What is the term for the study of forests and woods? It is *not* forestry.
14. (1 point) Describe the key characteristic of plywood.
15. (3 points) Describe the importance of forest fires.

Station 3



16. (1 point) What is the scientific name of the species above?
17. (2 points) Which is untrue?
 - A. All parts of the tree are fragrant and citrus-like.
 - B. Native Americans have used its leaves to treat wounds.
 - C. Its oil contains a compound with carcinogenic effects.
 - D. It is a host for the Western tiger swallowtail butterfly.
18. (1 point) What months do the flowers of this species bloom?
19. (1 point) Which classic drink was this species used in for flavour until the 1960s?
 - A. Coca Cola
 - B. Root Beer
 - C. Dr. Pepper
 - D. Ginger Ale
20. (2 points) What did the Pennsylvania Dutch use this species for?
21. (2 points) Which is not one of the three types of leaf forms that this species grows?
 - A. Leaflets
 - B. Three-lobed leaf
 - C. Oval shape leaf
 - D. Mitten-shaped leaf

Station 4



22. (1 point) Identify the common name of this species.
23. (1 point) Identify the scientific name of this species.
24. (1 point) What does the scientific name of this genus mean?
25. (2 points) What word best describes how hairy the twigs of this tree are?
26. (1 point) When does this tree flower?
27. (3 points) Why are the fruits of this tree used as a pastime in autumn?
28. (3 points) The flowers come in the form of catkins. What is a catkin?

Station 5

Image A



Image B



29. (3 points) Observe the leaf type displayed in Image A. Then write what family it belongs to, as well as the scientific name of one example of the species that fall under this family.
30. (1 point) Members of the family Annonaceae's fruits are often unconnected and have distinct carpels. What is the name for this phenomenon?
31. (1 point) A botanist has been looking to populate some plants near his house. He goes south and finds that he is surrounded by swamps with moist soil. Which family of plants would grow best in this habitat? (Select all that apply)
- A. Magnoliaceae
 - B. Moraceae
 - C. Ulmaceae
 - D. Annonaceae
32. (4 points) Describe the two ways Moraceae's pollen can be spread, and describe why there is a difference in the pollen dispersion types.
33. (1 point) You have a beautiful flowering Magnolia tree. However, one day, you notice small holes in the bark. What is causing these holes?
34. (1 point) Which of the following parts of a fig tree (aside from its fruit) can be used for medicinal purposes?
- A. Flesh and roots only
 - B. Pulp, leaves, roots
 - C. Leaves only
 - D. No part of the fig tree can be used for medicinal purposes
35. (3 points) Observe the leaf in Image B. Describe what family it is from and give one examples of species in that family.

Station 6



36. (1 point) Identify the common name of this species.
37. (1 point) True or False: This tree is highly resistant to decay
38. (1 point) The color of a mature cone is _____.
39. (1 point) The seeds of this tree are distributed long distance through _____.
40. (1 point) True or False: This tree is partially shade resistant

Station 7



41. (1 point) What is the scientific name of the species above?
42. (1 point) Which of these is not applicable to this species?
- A. Small, black-blue berries
 - B. Bitter fruit is poisonous to wildlife
 - C. Honey plant
 - D. Dioecious flowers



43. (1 point) Where is this tree found?

A. A



B. B



C. C



D. D



44. (1 point) What was the wood of this tree used for in colonial times?
45. (1 point) This tree's bark is sometimes compared to an animal's skin. Which animal is it?

Station 8



46. (1 point) Identify the common name of this species.
47. (1 point) Identify the scientific name of this species.
48. (1 point) The fruit of this species have a unique two-winged, horseshoe shaped seed. Which of the following matches the name of these seeds to their purpose?
- A. Drupes, allows for further dispersion of seeds
 - B. Legumes, protect the seed from predators and the elements
 - C. Samaras, allows for further dispersion of seeds
 - D. Drupes, Attract birds and other animals to disperse seeds
49. (1 point) Name three organisms that feed on this tree.
50. (1 point) True or False: This species is very tolerant of shade.
- A. True
 - B. False

Station 9



51. (1 point) Identify the common name of this species.
52. (1 point) Identify the scientific name of this species.
53. (1 point) This species is the host of which fungi?
54. (1 point) This species is on the logo of which university?
 - A. Osaka University
 - B. Stanford University
 - C. University of South Carolina
 - D. Atlantic International University
55. (1 point) In the leaves of this plant, two veins enter the leaf blade at the base and fork repeatedly in two. This phenomena is known as:
56. (1 point) Fossils of this species date back to which period?
 - A. Cretaceous Period
 - B. Permian Period
 - C. Jurassic Period
 - D. Triassic Period

Station 10



57. (1 point) Identify the scientific name of this species
58. (1 point) What family is this species a part of?
59. (1 point) Which of the following is this species' wood not used for?
- A. Bows
 - B. Paint
 - C. Deodorant
 - D. Fences
60. (2 points) This species' bark contains an important medicinal drug. What is the name of this drug and what is it used to treat?
61. (1 point) What is mature height of this species in feet?
62. (1 point) Sites dominated by this species tend to be plentiful in which soil nutrient?
63. (1 point) In which month does the fruit usually fall?
- A. January
 - B. May
 - C. June
 - D. September
 - E. October

Station 11



64. (1 point) Identify the common name of this species.
65. (1 point) Identify the scientific name of this species.
66. (1 point) The bark of this species was commonly used by indigenous North Americans and European settlers of the western U.S. as a substitute for which medicine?
- A. Aldactone
 - B. Tylenol
 - C. Quinine
 - D. Methergine
67. (1 point) Where does this species generally occur?
- A. In cold, moist areas
 - B. In rocky, well-drained sites on exposed summits
 - C. Where annual precipitation is less than evapotranspiration
 - D. Where annual precipitation exceeds evapotranspiration
68. (1 point) This species is the state tree of which US state?
- A. Utah
 - B. Michigan
 - C. Maine
 - D. Delaware
 - E. Wyoming
 - F. Florida

Station 12



69. (1 point) Identify the scientific name of this species.
70. (3 points) Describe the seeds of this tree.
71. (1 point) What season was this picture taken in?
72. (2 points) Its flowers form into compound cymes. What is a cyme?
73. (2 points) Billy loves eating berries, and ate 50 berries from a couple of these trees since he missed lunch at work today. Is it likely he'll be able to return to work tomorrow? Why?
74. (1 point) Are the leaves of this tree alternate or opposite?
75. (1 point) True or False: Emerald Ash Borer poses a threat to the health of this tree.

Station 13



76. (1 point) Identify the common name of this species.
77. (1 point) Identify the scientific name of this species.
78. (1 point) Which order does the species belong to?
- A. Aquifoliales
 - B. Myrtales
 - C. Sapindales
 - D. Pinales
79. (1 point) Where can this species be found?
- A. Tropical Asia
 - B. Midwestern United States
 - C. Southeastern United States
 - D. Eastern Europe
80. (1 point) This species is dioecious, meaning that it has
- A. Multiple stamen
 - B. separate male and female reproductive organs
 - C. both male and female reproductive organs
 - D. feet

Station 14



81. (1 point) Identify the common name of this species.
82. (1 point) Up to how long can this tree's needles grow, in inches?
83. (2 points) This species is considered resistant to fire. What is the term for this condition, and what characteristics give it this status?
84. (2 points) This tree is known for being referenced in North Carolina's State Toast. What is the first stanza of the toast?
85. (1 point) True or False: the canopies of this tree have a nice fragrance.

Station 15



86. (1 point) T/F: This tree was used for medicinal purposes
87. (1 point) T/F: This is the state tree of New York
88. (1 point) T/F: This tree is commonly used for Christmas trees
89. (1 point) T/F: There are three subspecies
90. (1 point) T/F: It is not very resistant to cold temperatures.
91. (1 point) The white secretion coming out of the cone is called a _____
92. (1 point) This tree is commonly damaged by the _____ budworm.
93. (2 points) Do the leaves of this tree change color? If so when?
94. (2 points) This tree rarely grows in pure stands. Define pure stands.
95. (1 point) This tree is highly shade-tolerant, which means what?

Station 16



Station 17



103. (1 point) What is the common name of this specimen?
104. (1 point) When do this tree's acorn's ripen?
105. (1 point) The genus of this species of tree is commonly seen as a symbol in mythology. Which Norse god is associated with this genus?
106. (1 point) What is the seed bearing frequency?
107. (1 point) What is the seed bearing age?
108. (1 point) How long can this species live up to?
109. (1 point) What is the scientific name of this specimen?

Station 18



110. (1 point) What is the common name of this specimen?
111. (1 point) This tree is the state tree of what state?
112. (2 points) This species is drought deciduous. What does this mean about its growth?
113. (1 point) True or False: This species is a chamaephyte.
114. (1 point) True or False: This species is used as a fuel source.
115. (1 point) What is the height is a mature tree of this species.
116. (1 point) What hardiness zones can this tree grow in?

Station 19



117. (1 point) What is the common name of this specimen?
118. (1 point) What is the scientific name of this species.
119. (1 point) What is the minimum pH this species can grow in?
120. (3 points) This tree enables fuel ladders in forests. What is a fuel ladder and how do they form?
121. (1 point) Tree ladders enable the formation of what type of forest fires?
122. (1 point) True or False: this species is the sole host of white fir dwarf-mistletoe.
123. (1 point) Which of the following is not a use of lumber from this species.
 - A. Paper making
 - B. Packing
 - C. Flooring
 - D. Construction

Thanks for competing!