

2022 Envirothon Forestry Questions

- 1) Which of the following tree species would most benefit from the use of prescribed fire?
 - a) Red Maple
 - b) Yellow-poplar (Tuliptree)
 - c) **White Oak**
 - d) Black Cherry
 - e) a and b

- 2) Which of the following tree species is considered a legume?
 - a) Sassafras
 - b) **Black Locust**
 - c) Hackberry
 - d) Butternut
 - e) None of the above

- 3) Which of the following tree species is very shade tolerant?
 - a) Black Oak
 - b) River Birch
 - c) Yellow-poplar (Tuliptree)
 - d) **American Beech**
 - e) Black Walnut

- 4) You are in a forest that is dominated by black oak, white oak, and shagbark hickory. Based on that information, what is one assumption you can make about the site?
 - a) **The soils are sandy or at least well drained.**
 - b) The forest was once pastureland for cows.
 - c) There is no history of a forest fire on the site.
 - d) American chestnut was once a dominant species here.
 - e) There has likely been a timber harvest within the last 20 years.

- 5) If you wanted to conduct a tree planting with a spacing of 10 feet by 10 feet, how many seedlings will you need per acre.
 - a) 372 seedlings
 - b) **436 seedlings**
 - c) 500 seedlings
 - d) 595 seedlings
 - e) 680 seedlings

- 6) Ohio currently has how many acres of forest?
- a) About 5 million acres
 - b) About 8 million acres
 - c) About 12 million acres
 - d) About 17 million acres
 - e) About 24 million acres
- 7) Which of the following shrubs are known to be invasive in Ohio?
- a) Eastern Wahoo
 - b) Blackhaw
 - c) Arrowwood Viburnum
 - d) Silky Dogwood
 - e) None of the above
- 8) Which of these non-native trees are known to be invasive in Ohio?
- a) Norway Spruce
 - b) Blue Spruce
 - c) English Oak
 - d) Ailanthus
 - e) Baldcypress
- 9) If you know the basal area per acre and the average diameter of the trees in a forest, what else can you calculate with that information?
- a) Average height of the trees
 - b) Volume of timber per acre
 - c) Number of trees per acre
 - d) Relative age of the forest
 - e) Number of species in the forest
- 10) How would you determine the DBH of a tree using a diameter tape?
- a) Wrapping it around the tree at 4.5 feet on the uphill side
 - b) Wrapping it around the tree at 4.5 feet on the downhill side
 - c) Wrapping it around the base of the tree on the uphill side
 - d) Wrapping it around the base of the tree on the downhill side
 - e) Both a and b

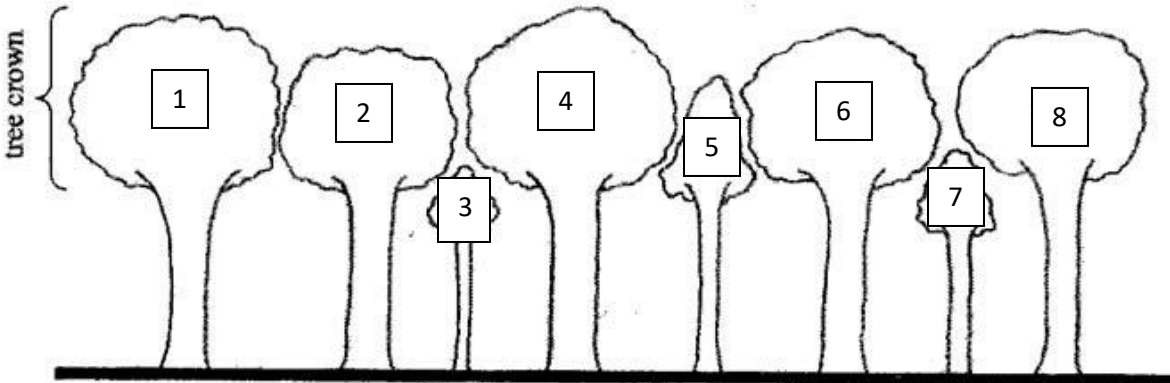
- 11) Which of the following tree species has opposite pinnately compound leaves?
- a) Black Walnut
 - b) Blue Ash
 - c) Ohio Buckeye
 - d) Bitternut Hickory
 - e) Silver Maple
- 12) Which of the following clues can be evidence of a forest having a history of cattle grazing?
- a) Overabundance of hickory trees.
 - b) Presence of large wolf trees among other trees of much smaller size.
 - c) An understory with a large amount of invasive shrubs
 - d) All of the above
 - e) A and b
- 13) Which of the following tree species produce hard mast?
- a) Sugar Maple
 - b) Hackberry
 - c) American Beech
 - d) Basswood
 - e) Slippery Elm
- 14) Which of these steps is not involved when calculating basal area using a 10-factor prism?
- a) Holding the prism over the plot center
 - b) Rotating the prism around your body to count trees
 - c) "In" trees are counted as trees that overlap with themselves in the prism
 - d) Multiplying the number of "in" trees by 10 to get basal area per acre.
 - e) All steps are correct
- 15) What tree species is not preferred if your goal for a forest is both wildlife habitat and timber production?
- a) Red Maple
 - b) Chinkapin Oak
 - c) Shagbark hickory
 - d) Black Cherry
 - e) Red Oak

- 16) Majority of Ohio's woodlands are under what type of ownership?
- a) Federal Government
 - b) State/local government
 - c) Private landowners
 - d) Private corporations
 - e) None of the above
- 17) What can you not calculate with the use of a Biltmore stick?
- a) Tree height
 - b) Tree diameter
 - c) Volume of timber in a tree
 - d) Trees per acre
 - e) Basal area of a tree
- 18) What chemical is secreted by black walnut that can inhibit the growth and germination of other trees it would compete with?
- a) Cyanide
 - b) Glyphosate
 - c) Juglone
 - d) Ammonia
 - e) Nitrogen
- 19) In a poorly drained site, which tree species should you not plant?
- a) Swamp white oak
 - b) Black walnut
 - c) Shellbark hickory
 - d) Baldcypress
 - e) Pin Oak
- 20) Harvesting using single tree selection encourages growth of which type of trees?
- a) Shade tolerant species
 - b) Shade intolerant species
 - c) Hardwoods
 - d) Softwoods
 - e) Early successional species

21) What is the most common tree species in Ohio?

- a) Red Oak
- b) White Oak
- c) Red Maple
- d) Sugar Maple
- e) Black Cherry

Use the below picture for the next 2 questions



22) What crown class does tree 2 fall in?

- a) Super-dominant
- b) Dominant
- c) Codominant
- d) Intermediate
- e) Suppressed

23) What crown class does tree 5 fall in?

- a) Super-dominant
- b) Dominant
- c) Codominant
- d) Intermediate
- e) Suppressed

24) What species is tree number 1?

- a) Green Ash
- b) Bitternut Hickory
- c) Shellbark Hickory
- d) Swamp White Oak
- e) Black Oak

25) What species is tree number 2?

- a) Pin Oak
- b) Slippery Elm
- c) Hackberry
- d) Black Walnut
- e) Black Oak

26) What is the DBH of tree number 2?

- a) 15 inches
- b) 17 inches
- c) 19 inches
- d) 21 inches
- e) 23 inches

27) What is the merchantable height (up to the first major branching) of tree number 2? Units are measured as number of 16 foot logs.

- a) 1.5 logs
- b) 2 logs
- c) 2.5 logs
- d) 3 logs
- e) 3.5 logs

28) What species is tree number 3?

- a) Silver maple
- b) American Basswood
- c) Black Ash
- d) Black Walnut
- e) Eastern Cottonwood

29) What is the DBH of tree number 3?

- a) 16 inches
- b) 18 inches
- c) 20 inches
- d) 22 inches
- e) 24 inches

30) What species is tree number 4?

- a) Sugar Maple
- b) Black Locust
- c) Bur Oak
- d) Pin Oak
- e) Red Maple

31) What species is tree number 5?

- a) Sweetgum
- b) Swamp White Oak
- c) Hackberry
- d) American Sycamore
- e) Baldcypress

32) What species is tree number 6?

- a) American Basswood
- b) Black Walnut
- c) Eastern Cottonwood
- d) Chestnut Oak
- e) Blackgum (Black Tupelo)

33) What is the overall forest type which you are in right now?

- a) Oak/Hickory
- b) Maple/Beech
- c) Upland Hardwoods
- d) Bottomland Hardwoods
- e) Mixed Pine

34) The Resource Conservation and Recovery Act (RCRA) set up the framework for the proper management of?

- a) Landfills
- b) C&D landfills
- c) Hazardous waste
- d) Agricultural land

35) The Superfund program was launched in response to a large increase in what type of cases during the 1970s?

- a) Sludge waste
- b) Toxic waste
- c) Industrial waste
- d) Mercury contamination

36) The fastest growing waste stream rates which are expected to double by the year 2030. What is this waste stream?

- a) Hazardous waste
- b) Household recycling
- c) Electronics waste
- d) Single use plastics

37) These two materials are found in every liner in a modern landfill.

- a) Gravel and clay
- b) Clay and plastic
- c) Soil and clay
- d) Sand and clay

38) Ohio has _____ number of solid waste management districts

- a) 33
- b) 52
- c) 88
- d) 4