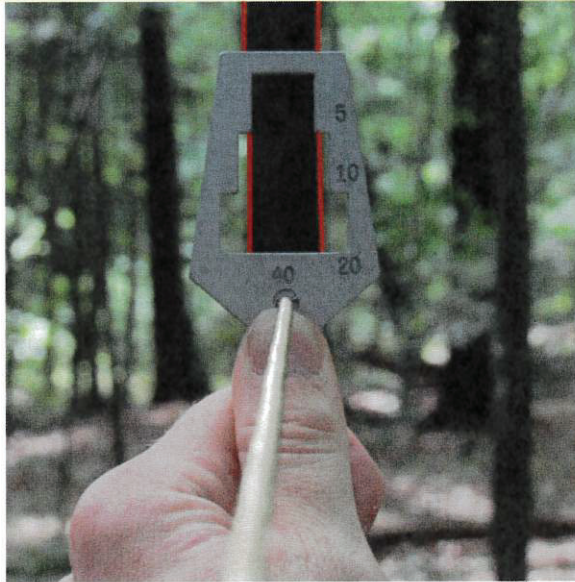


2026 Area IV Envirothon Test

Forestry

General Test Questions:

1. If conducting a timber inventory utilizing a variable radius plot sampling method with a 5 basal area factor using an angle gauge, would this tree be counted?



- a) Yes
b) No
2. What is the basal area per acre of a variable radius plot with 6 “in trees” using a 20 basal area factor (BAF) prism?
- a) 100
b) 120
c) 180
d) 220
3. A major way that exotic invasive plants gain a foothold in a woods is :
- a) Cattle grazing in the woods
b) Birds disseminating seeds
c) a & b
d) none of the above
4. A board foot is:
- a) A unit of measure used in the United States to estimate the volume of lumber in a tree, log, or board.
b) A piece of wood 12” wide, 1” thick, and 1 foot long.
c) A piece of wood which contains 12 cubic inches.
d) Both A and B

5. Natural woody debris such as stumps, logs, and fallen twigs and branches that lie decaying on the ground have the following environmental effect?
- They result in large quantity of harmful bacteria entering both the surface and ground water.
 - They can wash into a stream creating log jams that have no environmental benefit.
 - They are the most often used materials by beaver for constructing dams.
 - They add beneficial organic material to the soil and provide habitat for detritivores (earthworms).
6. Which of these species is shade intolerant?
- Pawpaw
 - Yellow Poplar
 - Red Maple
 - Eastern Hemlock
7. Which of the following groups of trees have opposite leaves and branching?
- Maple, ash, dogwood, buckeye
 - Oak, hickory, dogwood, sassafras
 - Cherry elm, walnut
 - None of the above
8. Which species is a shade tolerant species?
- American Basswood
 - White Oak
 - Red Pine
 - Bigtooth Aspen
9. What cutting method removes all stems >2 " DBH on an area >5 -acres in area?
- Group Selection
 - Clearcut
 - Shelterwood
 - Select Cut
10. Some trees produce chemicals that reduce the growth of competing plants. This process is called Allelopathy. What tree species common to Ohio produces a chemical that causes an allelopathic reaction?
- White Oak
 - Black Walnut
 - Sassafras
 - White Pine

11. Which ownership category holds the largest amount of forestland in Ohio?
- National Forest and other federal
 - State and Local governments
 - Industry
 - Private families
12. How could imported plants used for landscaping adversely impact forest ecosystems?
- They may become invasive and compete for space with native plants
 - Birds stay in people's yards instead of inhabiting the forest
 - They use more oxygen than native species
 - Poison ivy might spread
13. The state tree of Ohio is the Ohio Buckeye *Aesculus glabra*, the Indian name for buckeye is Hetuch which means "eye of the buck". This tree gets its common name from what part of the plant.
- Leaves
 - Bark
 - Seed
 - Buds and branches
14. In forest ecology, trees compete between each other for:
- Air
 - Nutrients
 - Light
 - Water
 - B, C, & D only
15. Where should tree diameter be measured?
- 5 feet above the ground on the uphill side.
 - 5.5 feet above the ground on the downhill side.
 - 4.5 feet above the ground on the uphill side.
 - 4 feet above the ground on the downhill side.
16. What part of the trunk is inactive, because the cells have died, but provides strength to that trunk?
- Heartwood
 - Sapwood
 - Bark
 - Root collar
17. Intermediate treatments, including the removal of vines and cull trees, that leave a stand of good quality trees of the desired species is a:
- Timber Stand Improvement
 - Shelterwood Cut
 - Sanitation Cut
 - Treatment Cut

18. Which of the following processes may have a positive effect on woodlands?

- a) Livestock grazing
- b) Land clearing for commercial real estate development
- c) Invasion of non-native plants
- d) A & C
- e) None of the above

19. A Log Rule is a method to determine the board foot volume in logs and standing trees. Which of the following **is not** a standard Log Rule:

- a) Doyle
- b) Scribner
- c) International $\frac{1}{4}$ "
- d) Murphy

Site Specific Questions

20. Identify the tree labeled "C" by common name

- A. American Sycamore
- B. Sugar Maple
- C. Ohio Buckeye
- D. American Elm

21. Using the Biltmore stick provided, determine the DBH in inches of the tree labeled "#1"

- A-16
- B-20
- C-24
- D-28

22. What species is tree "#1"

- A-Tulip poplar
- B-Red Maple
- C-Black Walnut
- D-White Oak

23. The Doyle Scale uses DBH and number of merchantable logs to determine what value?

- A-Site Index
- B- Board Feet
- C-Basal Area
- D- Stocking

24. Which of the species present at this site indicates an early successional forest?

- A-White Oak
- B-Sugar Maple
- C-American Beech
- D-Tulip Poplar

25. Select the negative impact to a forest system with dense understory with high population of invasive species

- A-Shade out native vegetation from establishing
- B-Significantly increases the growth of desirable timber species for future harvest
- C-Encourage native species for insect/wildlife habitat and food sources
- D-All of the above