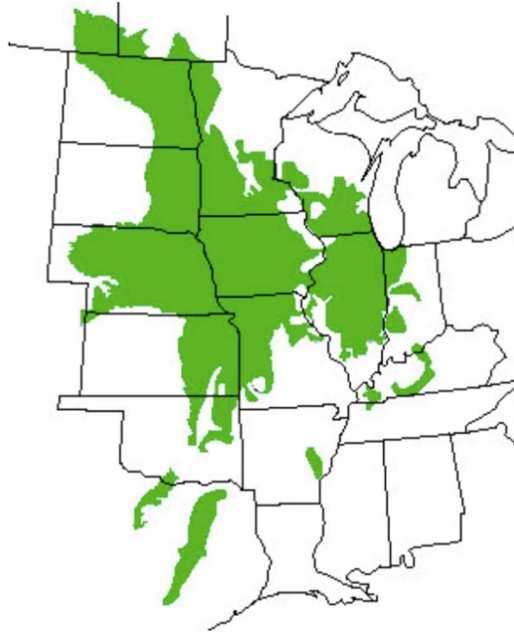


## 2026 Iowa Regional Envirothon Forestry Test (25 points) KEY

1. When European-American settlers first came to Iowa and the Midwest, the green shaded areas were \_\_\_\_\_ . (see map)

- A. coniferous forests
- B. deciduous forests
- C. prairie\*
- D. tundra
- E. swamps



2. When using this tree harvesting method, five or more scattered trees per acre are left in the harvested area to provide seeds for a new forest stand. These trees are selected based on their growth rate, form, seeding ability, wind resistance and future marketability.

- A. Group Selection Harvest
- B. Seed Tree Harvest\*
- C. Single-Tree Selection Harvest
- D. Clearcut Harvest

3. Foresters who can provide assistance and help landowners improve their woodland for wildlife, recreation, water quality, or wood products are available in Iowa through the \_\_\_\_\_.

- A. County Forestry Service Office
- B. Iowa Department of Natural Resources\*
- C. Farm Service Agency
- D. University of Iowa Forestry Department

4. When should oak trees be pruned?

- A. Any time of year
- B. Late spring
- C. Dormant season (December–February) only\*
- D. Mid-summer during high heat

5. What is the name for this common insect problem for trees in Iowa? (see picture)
- A. Eastern tent beetle
  - B. Emerald ash borer\*
  - C. Green-winged grasshopper
  - D. Insect gall
  - E. Japanese beetle



6. Which part of a tree is living xylem that is actively involved in fluid transport?
- A. Heartwood
  - B. Outer bark
  - C. Sapwood\*
  - D. Cork
7. Roots of most species of trees are invaded by soil fungi to form root-fungus structures called \_\_\_\_\_.
- A. apical meristem
  - B. decurrent
  - C. excurrent
  - D. mycorrhizae\*
8. Which tree has opposite simple leaves with five lobes, a smooth margin, and a fruit that is a u-shaped samara? (see picture)
- A. Black Walnut
  - B. Boxelder
  - C. Sugar Maple\*
  - D. Red Oak
  - E. Black Locust

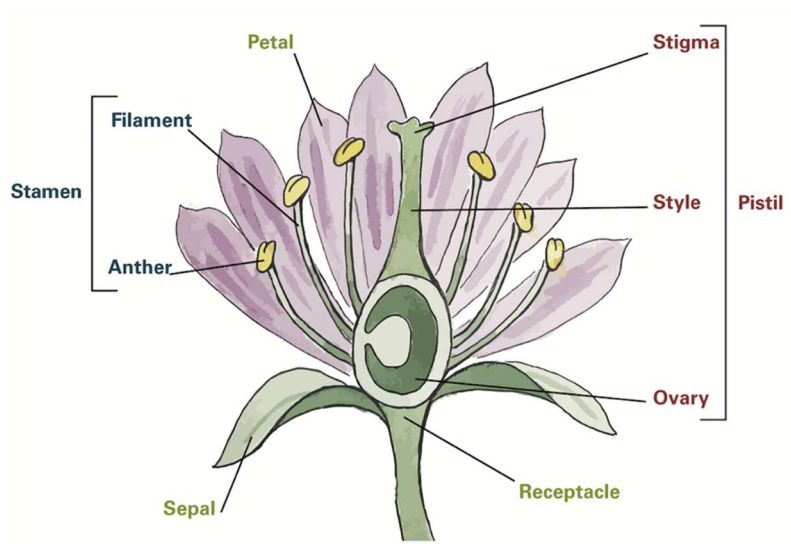


9. To measure tree height with a Biltmore stick, how far should you stand from the tree?
- A. 33 ft (10.06 m)
  - B. 50 ft (15.24 m)
  - C. 66 ft (20.12 m)\*
  - D. 100 ft (30.48 m)
10. Which of the following is a characteristic shape of the exit hole made by an adult Emerald Ash Borer as it exits from under the bark of an ash tree?
- A. Round hole
  - B. V-shaped hole
  - C. Square hole
  - D. D-shaped hole\*
11. Although insects are the most important food source for forest birds in Iowa, the fruits of flowering plants are also an important food source for many bird species. These fruits include soft fleshy fruits, as well as nuts and acorns and are referred to as \_\_\_\_\_.
- A. flora
  - B. mast\*
  - C. mycorrhizae
  - D. sepal
12. This bird is primarily found in open areas, will often nest in trees at forest edges, and will erect and maintain its large stick nest high in the canopy of trees? (See picture)
- A. Eastern kingbird
  - B. Eastern wood-pewee
  - C. Peregrine falcon
  - D. Red-tailed hawk\*



13. Some native trees can take on invasive characteristics in the absence of disturbance or management. A prime example of a native tree with invasive potential is the \_\_\_\_\_, which, when allowed to become overabundant, can set the stage for a forested environment that will have less diversity and therefore support fewer of Iowa's forest-dependent birds.
- A. Buckthorn
  - B. Bur Oak
  - C. Eastern redcedar\*
  - D. Garlic mustard
  - E. White pine

14. The female reproductive parts of a flower include \_\_\_\_\_. (see picture)
- A. petals
  - B. the pistil\*
  - C. sepals and the receptacle
  - D. the stamen
  - E. all of these

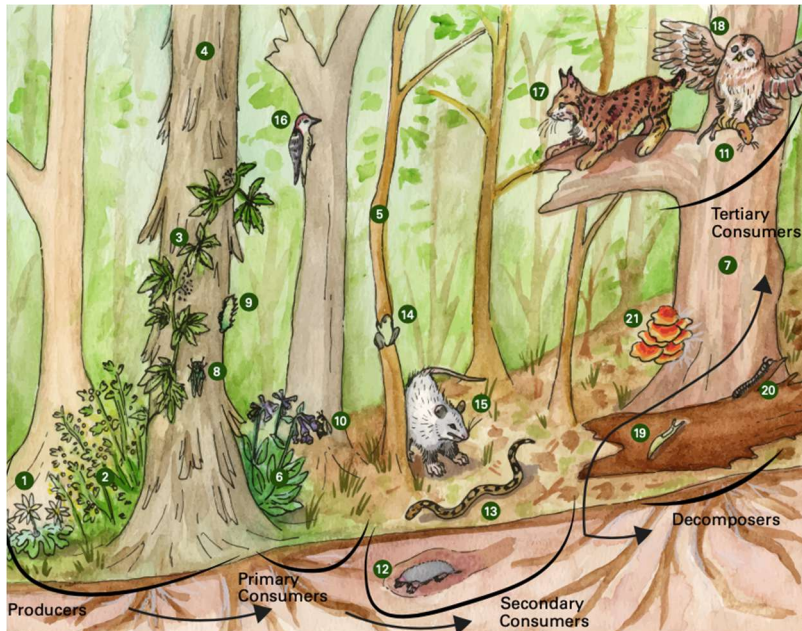


15. \_\_\_\_\_ have hollow stems with needle-like hairs that serve as a good deterrent for animal consumption. This plant's epidermal hairs act like hypodermic needles and inject irritating chemicals, which results in a painful itch when touched. (See picture)
- A. Jewelweed (*Impatiens capensis*)
  - B. Wild parsnip (*Pastinaca sativa*)
  - C. Poison Ivy (*Toxicodendron radicans*)
  - D. Stinging nettles (*Urtica dioica*)\*



16. \_\_\_\_\_ were once common in Iowa, but now are one of the rarest and most threatened ecosystems in our state.
- A. Forests
  - B. Prairies
  - C. Savannas\*
  - D. Wetlands

17. Which of the following represent tertiary consumers in an Iowa forest food web? (see picture).
- A. polyphemus moth caterpillar, common eastern bumble bee, white-footed mouse
  - B. eastern mole, western fox snake, Virginia opossum
  - C. bobcat, barred owl\*
  - D. American giant millipede, sulfur shelf fungi, slug
  - E. all of these are correct



18. Which of the following is true regarding Iowa forests?
- A. There is a trend toward shadier forests because of lack of disturbance.
  - B. Iowa is losing thousands of acres of oak habitat annually.
  - C. Oak regeneration has been negatively impacted due to the trend toward more shady forests.
  - D. all of these\*
19. A strategy for managing and controlling invasive plants in forests include \_\_\_\_\_.
- A. avoiding introduction of plants that could be invasive
  - B. hand-pulling and mowing
  - C. prescribed fire
  - D. all of these\*
20. Which tree species is easily recognized by their long needles grouped into bundles of two, three, or five.
- A. Fir trees
  - B. Pine trees\*
  - C. Spruce trees
  - D. Cedar trees
  - E. all of the above

**MATCHING: Match the definition with the appropriate term.**

- |                                      |                         |
|--------------------------------------|-------------------------|
| A. Forest                            | F. Ring-necked pheasant |
| B. Giant millipede                   | G. Stewardship          |
| C. Spongy moth (formerly Gypsy Moth) | H. Tundra               |
| D. Polyphemus                        | I. White oak            |
| E. Red oak                           | J. Wild Turkey          |

- \_\_\_\_\_ 21. a biological community dominated by trees **A**
- \_\_\_\_\_ 22. acorns from this tree contain less of the bitter compound, tannin, which makes it a preferred acorn for wildlife consumption **I**
- \_\_\_\_\_ 23. an abundant game species in Iowa today, that had disappeared from the state by the early 1900s because of unregulated hunting and habitat loss. **J**
- \_\_\_\_\_ 24. well-known non-native health threat to Iowa forests **C**
- \_\_\_\_\_ 25. means to be responsible for, plan, protect, care, and manage something **G**