Forestry Station: 2017 Area IV Envirothon

By Pat Migliozzi, Service Forester, ODNR Division of Forestry

1. Please identify this plant species.
    a. Bush honeysuckle (*Lonicera maackii*)
    b. Japanese honeysuckle (*Lonicera japonica*)
    c. American bladdernut (*Staphylea trifolia*)
    d. Flowering dogwood (*Cornus florida*)

2. Please identify this tree species.
    a. Bitternut hickory (*Carya cordiformis*)
    b. Mockernut hickory *(Carya tomentosa)*
    c. Pignut hickory (*Carya glrabra*)
    d. Shellbark hickory *(Carya laciniosa)*

3. Please identify this plant species.
    a. silky dogwood *(Cornus amomum)*
    b. bush honeysuckle (*Lonicera maackii*)
    c. Flowing dogwood (*Cornus florida*)
    d. Alternate leaf dogwood (Cornus alternifolia)

4. Using the provided diameter tape, what is the diameter of this black walnut *(Juglans nigra)* to the nearest half inch?
    a. 14 inches
    b. 14.5 inches
    c. 15 inches
    d. 15.5 inches (I still need to verify this)

5. Using this Biltmore stick or cruising stick how many board feet would be in this tree to the nearest 25 bdft.
    a. 70 bd ft
    b. 150 bdft (need to verify)
    c. 200 bdft
    d. 250bdft

6. With the exfoliating bark, which of the following wildlife species would utilize this tree species for cover?
    a. Indian bat
    b. Kingfisher
    c. Grey squirrel
    d. Bobcat
7. This tree is better for wildlife than it is for timber production for many reasons. Which of the following would preclude this tree being good for timber production?
    a. Because the tree has poor form
    b. Because of the species
    c. Because of the vines present
    d. Because the tree is to small

8. Non-native invasive plants are a detriment to the overall health and diversity of a woodland. Which of the following plant species is a non-native invasive found here at the forestry station?
    a. Japanese knotweed (*Fallopia japonica*)
    b. Bush honeysuckle *(Lonicera maackii)*
    c. Nannyberry *(Viburnum lentago)*
    d. Blackhaw *(Viburnum prunifolium)*

9. Being able to identify trees and bush species is vital to making management recommendations in a woodland. If a landowner wants to make maple syrup, they better be able to identify a maple tree from a black walnut. What type of leaf does a sugar maple have?
    a. Simple leaf with an entire margin
    b. Compound leaf with an entire margin
    c. Palmately compound leaf with an entire margin
    d. Binately compound leaf with an entire margin

10. Trees can be indicators of many different things, such as site history, soil drainage, and soil fertility. What does this tree species generally indicate about a site?
    a. Fertile soils
    b. Unfertile soils
    c. Soil drainage
    d. Compacted soil

11. This area that now makes up the Fernald Preserve was once all forested, then it was cleared for farming before it became Fernald. When reclamation of the land began, some areas were reforested through tree plantings, and other areas reforested on their own. Ohio has a similar history; originally being ninety-five percent forested, and then cleared to around twelve percent forestland. What is current percent of Ohio that is forested?
    a. 21%
    b. 31%
    c. 41%
    d. 51%

12. There are several different stages of forest succession present on this property. Please identify what type of forest succession would be utilized by rabbits, ruffed grouse, and many migratory song birds that utilize brushy habitats.
    a. Early successional
    b. Late successional
    c. Neo successional
    d. Mid successional

13. Typically speaking the root system of a tree is as wide as the crown or canopy of the tree. Because of this the tree can?
    a. The expansive root system compacts soils
    b. The expansive root system increases soil runoff
    c. The expansive root system helps break up compacted soil
    d. The expansive root system has no impact on soil

14. Forested areas along streams and rivers can be very high in both plant and wildlife diversity and serve and an important ecological niche when it comes to water and soil conservation. What are these forested areas called?
    a. Forested waterway corridor
    b. Riparian forests
    c. Streamside management zones
    d. Forested aquatic zones

15. Detritus is the basic source of energy for the stream ecosystem. What can forests do to aide in in this basic source of energy?
    a. Leaves and woody debris falling into the stream
    b. Tree and shrub branches filtering leaves and debris from entering streams
    c. Tree leaves shading the streams and keeping the water cooler
    d. Stabilizing the soil

16. Whish of the following tree species would be considered a pioneer species in forested stream corridors?
    a. Pin oak (*Quercus palustris*)
    b. Black walnut *(Juglans nigra)*
    c. Red maple *(Acer rubrum)*
    d. Silver maple *(Acer saccharinum)*

17. Forested areas that are adjacent to streams and waterways often experience periodic flooding and even times of standing water. Which of the following tree species would not do well in areas like this?
    a. Boxelder *(Acer negundo)*
    b. Cottonwood *(Populus deltoids)*
    c. Black Alder *(Alnus glutinosa)*
    d. White oak *(Quercus alba)*

18. Many different tree species in our forest can provide an abundance of food for wildlife of all varieties in the form of the trees seed and seed casing. These seeds and casing can be lumped into two main groups, hard mast and soft mast. Which of the following tree species produces a soft mast fruit?
    a. Northern red oak *(Quercus rubra)*
    b. Black cherry *(Prunus serotina)*
    c. Shagbark hickory *(Carya ovata)*
    d. Black walnut (*Juglans nigra*)

19. Along with determining the diameter of a tree foresters also determine how many board feet are in a tree, over time this can allows the foresters to see how productive the forest is. How many board feet are in a board that is 12 inches square and 2 inches thick?
    a. 148 board feet
    b. 188 board feet
    c. 248 board feet
    d. 288 board feet

20. If a walnut tree has 360 bdft of merchantable lumber in it and walnut is selling for $1000 per thousand board feet on the stump, how much would that tree sell for?
    a. $250
    b. $360
    c. $2500
    d. $3600

21. When making management recommendations solely for the long term health of a forest, which of the following should not be a concern?
    a. Landowner goals and objectives
    b. Current year timber market value
    c. Wildlife found on property
    d. Invasive plant or animal species

22. Foresters use the site index for trees in soil surveys all the time. What can the site index tell a forester about a soil?
    a. how well draining the soils are
    b. how well any tree species will grow on that specific soil
    c. how well a specific tree species will grow on that soil
    d. the site suitability for a logging operation

23. When making management recommendations it is important to determine stocking levels or basal in a given area of forest. This will tell the forester if the area is over stocked with trees, under stocked, or well stocked. What is the main tool that foresters use to determine stocking levels?
    a. Prism
    b. Diameter tape
    c. Fresnal lense
    d. Canopy densiometer

24. Foresters need to determine the diameter of a tree to make proper management recommendations. To do this foresters measure the diameter at DBH or Diameter at Breast Height. What is the correct height of DBH?
    a. 4.0 feet on uphill side of tree
    b. 4.25 feet on uphill side of tree
    c. 4.5 feet on uphill side of tree
    d. 4.75 feet on uphill side of tree

25. Ohio's forests and forest management are important to Ohio's economy. Hunting, fishing, bird watching, hiking, and mountain biking are just a few activities that all benefit from good sound forest management. Timber harvesting is a form of forest management that also adds to Ohio's economy. What is the standard length of a full log in Ohio?
    e. 12 feet
    f. 14 feet
    g. 16 feet
    h. 18 feet