

2012 FINAL FORESTRY – AREA 2 Envirothon Questions Answer KEY

MAKE SURE YOUR SCANTRON SHEET SAY FORESTRY
DO **NOT** WRITE ON THIS TEST

1. Identify the Tree marked #1:
 - A. American Basswood
 - B. American Elm
 - C. Sugar Maple
 - D. Red Maple
 - E. Black Cherry**

2. Measure the diameter at breast height (DBH) of Tree #1
 - A. 18" DBH
 - B. 20" DBH
 - C. 22" DBH**
 - D. 24" DBH
 - E. 26" DBH

3. How many logs does Tree #4 have in the tree? THIS QUESTION DISMISSED, NO TREE MARKED AT SITE.
 - A. 1 log
 - B. 1 ½ logs
 - C. 2 logs**
 - D. 2 ½ logs
 - E. 3 logs

4. Using the DBH & # of logs, estimate the board foot volume (using Doyle Log Rule) of Tree #4. THIS QUESTION DISMISSED, NO TREE MARKED AT SITE.
 - A. 200 BDFT
 - B. 220 BDFT
 - C. 240 BDFT
 - D. 260 BDFT
 - E. 280 BDFT**

5. Identify the Tree marked #5
 - A. Hawthorn**
 - B. Dogwood
 - C. American Basswood
 - D. American Elm
 - E. Sugar Maple

6. Identify the Tree marked #6
 - A. Sugar Maple
 - B. Silver Maple
 - C. Red Maple
 - D. Sassafras**
 - E. Ash

7. Identify the Tree marked #7
- A. Muscle-wood
 - B. Ironwood**
 - C. White oak
 - D. Sassafras
 - E. Ash
8. Identify the Tree marked #2
- A. American Basswood
 - B. American Elm
 - C. Sugar Maple
 - D. Red Maple**
 - E. Wild Cherry
9. Measure the diameter at breast height (DBH) of Tree #8
- A. 22" DBH
 - B. 24" DBH
 - C. 26" DBH
 - D. 28" DBH**
 - E. 30" DBH
10. How many logs does Tree #8 have in the tree?
- A. ½ log
 - B. 1 log
 - C. 1 ½ logs
 - D. 2 logs
 - E. 2 ½ logs**
11. Using the DBH & # of logs, estimate the board foot volume (using Doyle Log Rule) of Tree #8
- A. 420 BDFT
 - B. 520 BDFT
 - C. 620 BDFT**
 - D. 720 BDFT
 - E. 820 BDFT
12. If the market is paying \$500.00/1000 BDFT for Tree #8 how much would you estimate the value of Tree #1. THIS QUESTION DISMISSED, EVERYONE WAS SCORED CORRECT.
- A. \$ 210.00
 - B. \$ 310.00**
 - C. \$ 375.00
 - D. \$ 400.00
 - E. \$ 435.00

13. What is the purpose of using best management practices (BMP's) in a logging operation?
- A. To limit access
 - B. **Aid in the control of soil erosion from the logging site**
 - C. Replace topsoil that is lost in the harvesting operation
 - D. Create wildlife habitat
 - E. To create jumps for all terrain vehicles
14. What are the three primary elements that any tree needs to grow and survive?
- A. **Nitrogen, potassium, and phosphorous**
 - B. Nitrogen, calcium, and potassium
 - C. Potassium, calcium, and sulfur
 - D. Phosphorous, iron, and magnesium
 - E. All of the above
15. The following equation represents photosynthesis: $6\text{H}_2\text{O} + 6\text{CO}_2 = \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2$
what does $\text{C}_6\text{H}_{12}\text{O}_6$ represent in this equation?
- A. Carbon Dioxide
 - B. Oxygen
 - C. Fructose
 - D. **Glucose**
 - E. Water
16. The state of Ohio has a very diverse population of different tree species. But the State has a dominant group of trees that represents the largest percentage of trees found in Ohio. This group of trees is known as the?
- A. Beech - Maple group
 - B. Yellow poplar – Northern red oak group
 - C. **Oak – Hickory group**
 - D. Cottonwood – Sycamore – Silver maple group
 - E. Ash – Elm group
17. Ohio's primeval forests supported wildlife species no longer present in the state. Which of the following animals, dependent on woodland habitat, is no longer found here?
- A. Timber rattlesnake
 - B. **Elk**
 - C. Bobcat
 - D. Wild turkey
 - E. Eastern Box Turtle
18. What are some of the benefits to leaving dead wood, both standing and down, for wildlife in a wood lot?
- A. Insects are attracted to recently killed or dead trees which will attract wood-peckers due to the food source
 - B. It potentially could provide nesting cavities for birds that require this type of habitat
 - C. The dead trees become shelter to wildlife if the tree has a cavity
 - D. **All of the above**
 - E. None of the above

19. Hypothetically, a harvest has occurred and the skid trail that was used is on a slope of 50%. The trail goes directly up the hillside. Soil is eroding down the slope of the hill along the skid trail. There is no waterway at the bottom of the hill. Since the soil is moving from one spot on the property to another spot on the property is this an issue for Ohio EPA under the Section 319 of the Federal Water Quality Act?

A. True (Yes, it is)

B. False (No, it is not)

20. Which harvest technique favors shade tolerant tree species?

A. High grading

B. Single Tree Selection harvest

C. Seed Tree

D. Shelter-wood

E. Clear-cutting

21. Which of the following trees would be considered a mast trees?

A. Black gum

B. Sassafras

C. Hickory

D. Paw-paw

E. All of the above

22 . A rarer member of the order Chiroptera can be sighted in forests and open habitats such as river corridors and wetlands while feeding on insects. This insectivore is rarely found in caves, but instead uses trees for roosting. Which of the species below would fit this description?

A. Streamside salamander

B. Little Brown Bat

C. Wood frog

D. Eastern screech owl

E. Purple Martin

23. Soil horizons can be separated by color. Explain why poorer drained soils usually have darker colored surface layers.

A. The natural wetness of the soil slows the decomposition of organic matter

B. The silt and clay sized particles are residue of black parent material

C. The trees that grow in these soils have darker colored leaves

D. The animals that live in these areas release dark colored inorganic compounds

E. The water collects more pollutants as is lays on top of the soil

24 .Hypothetically, a timber harvest has occurred and the skid trail that was used is on a slope of 30%. At the bottom of the hill is a small stream/river that feeds into a trout river. The logger used a portable bridge to cross the river. What needs to be done to prevent soil erosion from entering the waterway?

- A. Plant grass on the skid trails and riparian area of the skid trails.
- B. Install water bars at the intervals along the skid trail.
- C. Install silt fencing along the bank of the stream/river.
- D. All of the above**
- E. None of the above

25. Which statement best describes the effects of topography on the forest environment?

- A. It results in a diversity of tree species.**
- B. It aggravates grape vine growth.
- C. It affects wildlife mortality rates.
- D. It is responsible for forest fire occurrence.
- E. Both C & D