

2023 Envirothon Soils Test

Prepared by Greg Meyer, Ohio State University Extension Educator, Warren County

1. Which of the following principal forms of soil is considered structureless?
 - a. Columnar
 - b. Granular
 - c. Massive
 - d. Prismatic

2. Which soil element can give soil a brown, yellow or red color?
 - a. Copper
 - b. Iron
 - c. Manganese
 - d. Zinc

3. Overly saturated soils can be mottled or completely gray in color.
 - a. True
 - b. False

4. Which soil horizon is also known as the substratum?
 - a. "A" horizon
 - b. "B" horizon
 - c. "C" horizon
 - d. "R" horizon

5. Which answer has the soil particles listed from the largest particle to the smallest particle?
 - a. Clay, silt, sand
 - b. Sand, silt, clay
 - c. Sand, clay, silt
 - d. Silt, sand, clay

6. Based upon the soil textural triangle, which of these soil textures contains the highest percentage of clay particles?
 - a. Clay loam
 - b. Loam
 - c. Silty clay
 - d. Silty clay loam

7. A soil that tests with a pH of 6.5 is described as.
 - a. Neutral
 - b. Slightly acidic
 - c. Slightly alkaline
 - d. Basic

8. Soil samples should not be collected in a.
 - a. Aluminum bucket
 - b. Cardboard box
 - c. Plastic bucket
 - d. Ziploc bag

9. Soil properties are developed through five principal soil forming factors. Which of the following is not a soil forming factor?
 - a. Climate
 - b. Relief
 - c. Time
 - d. All of these are soil forming factors

10. Material (sand, silt, or clay) that is deposited on land by flowing streams is called.
 - a. Alluvium
 - b. Colluvium
 - c. Residuum
 - d. None of the above

11. Which soil horizon is located closest to the soil surface?
 - a. "A" horizon
 - b. "B" horizon
 - c. "C" horizon
 - d. "O" horizon

12. Which metal caused soil contamination near roadways because of automobile emissions?
 - a. Cadmium
 - b. Copper
 - c. Lead
 - d. Nickel

13. Sedimentary rock formed by the hardening of a clay deposit is called.
 - a. Aggregate
 - b. Bedrock
 - c. Sandstone
 - d. Shale

14. Soils with parent material made up primarily of limestone are more likely to have a soil pH that is.
 - a. Acidic
 - b. Alkaline
 - c. Limestone doesn't affect soil pH
 - d. Basic

15. Erosion is the wearing away of the land surface by water, wind, ice, or other geologic agents. Erosion that occurs mainly because of human or animal activities is known as.
- Accelerated erosion
 - Geologic erosion
 - Natural erosion
 - None of the above
16. An ion carrying a positive charge of electricity is known as a.
- Catena
 - Cation
 - Dogion
 - Hydro ion
17. Which of the following nutrients is not obtained primarily from air and water?
- Boron
 - Carbon
 - Hydrogen
 - Oxygen
18. What is the texture class of the A Horizon?
- Clay
 - Silty Clay Loam
 - Sandy Loam
 - Sand
19. What is the drainage class of this soil?
- Very Poorly Drained
 - Somewhat Poorly Drained
 - Moderately Well Drained
 - Well Drained
20. What is the depth of a restrictive layer?
- 0-8 inches
 - 9-17 inches
 - 18- 40 inches
 - 41- 60 inches

2023 Envirothon Soils Test Answer Key

1. C
2. B
3. A
4. C
5. B
6. C
7. B
8. A
9. D
10. A
11. D
12. C
13. D
14. B
15. A
16. B
17. A
18. C
19. D
20. C