

1999 Wisconsin Envirothon
Soils Questions

(Questions 1-17 equal one point each and Question 18 equals 3 points)

1. Soil color can be used to help determine how wet a soil is. T or F
2. Soil survey maps can always be used to accurately determine sites for intensive land uses such as rural sanitary facilities. T or F
3. Soils that have gray colored B and C horizons are always wet. T or F
4. The parent material for soils formed in Wisconsin were all deposited by periods of glaciation. T or F
5. Because of the large pore spaces, sandy soils are very good storehouses for plant nutrients. T or F
6. The distance from the top of a field to the bottom is 650 feet and the elevation drop is 52 feet. What is the percent slope of this field?
 - a. 52 percent
 - b. 12 percent
 - c. 8 percent
 - d. 6 percent
7. Soils that have a high water holding capacity usually have a high content of which soil texture particle size?
 - a. silt
 - b. loam
 - c. clay
 - d. sand
8. The “Cornbelt Region” of the United States formed under what type of original vegetation?
 - a. Oak-Savanna
 - b. Prairie
 - c. Upland Hardwoods
 - d. Conifers
9. Which of the following soil conditions is generally not characteristic of a poorly suited soil for septic tank filter fields as stated in a soil survey?
 - a. high water table at 18 inches
 - b. sandy loam glacial till
 - c. limestone bedrock at 24 inches
 - d. 12 inch thick muck surface layer
 - e. silty clay textured C horizon
10. Which of the following soil surface textures has the highest potential for wind erosion?
 - a. silty clay
 - b. silt loam
 - c. loamy sand
 - d. sandy clay loam
11. Using the above textural triangle, what is the texture of a soil that has 22% clay, 25% sand and 53% silt?
12. Which of the 5 soil forming factors is least affected by normal farming operations in Wisconsin?
13. Corn plants that have pale yellow colored leaves are commonly the result of deficiencies in what major plant nutrient?

Soil Pit Questions

14. The substratum is an example of what type of glacial parent material?
15. The soil in the area of this pit has slight limitations for construction of house basements. T or F
16. If the soil in the area of this pit was cleared, it would be suited to growing row crops. T or F
17. The white arrow is indicating what soil horizon?
18. List three conditions that are necessary to identify a wetland. (*Tie Breaker*)