

7. What three conditions are necessary to identify a wetland? (9pts)

hydric soil hydrophytic vegetation wetland hydrology

8. Which factor is the most significant in the development of hydric soils? (4pts)

- a. parent material originally limestone
- b. an excess of microbial activity
- c. **lack of oxygen from water saturation**
- d. rapid decomposition of organic matter

9. What is the percent slope of a field that has a change in elevation of 83 feet and is 550 feet long? (5pts)

% slope = 15 (rounded to nearest whole number)

10. Which major nutrient contained in runoff water is associated with lake eutrophication? (4pts)

Nitrogen or **Phosphorus**

11. What two effects does soil compaction have on water running down a steep hill in a field? (6pts)

It increases runoff

It decreases infiltration

12. Five major factors largely influence the kinds of soil that develop in the world. What are the five factors? (10pts)

1. parent material

2. topography or landscape position or relief

3. organisms

4. climate

5. time

• **Use the samples in the containers to answer the next series of questions.**

13. What is the soil texture in container 1? (circle one) (3pts)

sand silt **clay**

14. What is the soil texture in container 2? (circle one) (3pts)

sand **silt** clay

15. What is the soil texture in container 3? (circle one) (3pts)

sand silt clay

16. What is the soil structure in container 4? (circle one) (3pts)

- a. Prismatic
- b. Platy
- c. **Sub-angular blocky**
- d. Massive

• **Visit the soil pit to answer the following questions.**

17. What is the origin of the parent material in the pit? (4pts)

- a. wind blown silts
- b. **water deposited sand and gravel**
- c. fine textured lake sediments

18. The soil in this pit would be considered a _____ soil. (4pts)

- a. poorly drained
- b. **well drained**

19. What is the name of the layer labeled I? _____? **Horizon** _____ (4pts)

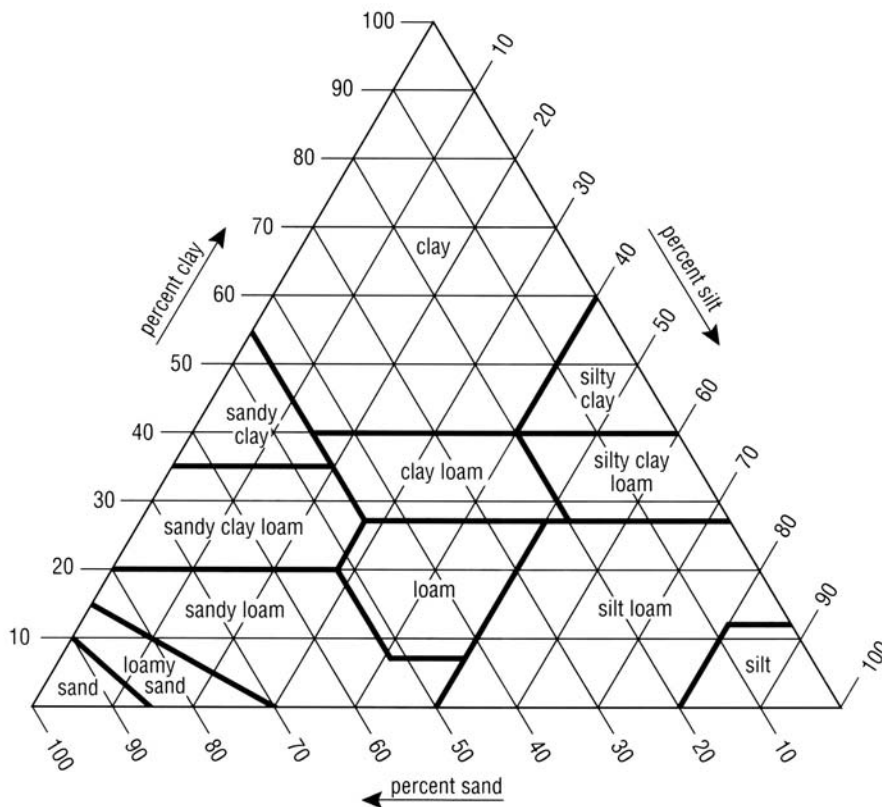
20. What is the name of the layer labeled II? _____? **Horizon** _____ (4pts)

21. Using the texture triangle, identify the texture of the three soils based on their relative proportions of clay, sand, and silt. (9pts)

a. 50% clay, 35% silt, and 15% sand clay

b. 18% clay, 35% silt, and 46% sand loam

c. 32% sand, 56% silt, and 12% clay silt loam



Tie Breaker:

(4pts)

Several days after it stops raining the downward movement of water in the soil essentially stops. The soil is then said to be at **field capacity**.