

APBI 200 - LAB 6 ASSIGNMENT

Please answer the following questions:

1. Fill in the following table, highlighting key properties of each forest humus form order.

| | Mor | Moder | Mull |
|---|------------|--------------|-------------|
| Diagnostic horizon | | | |
| Key characteristics of diagnostic horizon | | | |
| Dominant decomposers | | | |
| Common vegetation | | | |

[4 points]

2. Briefly describe differences between deciduous and coniferous litter and their relative decomposition rates in forests? See “*In the Ecosystem*” video at <http://forestfloor.soilweb.ca/definitions/forest-floor/>)

[2 points]

3. “*In the Ecosystem*” video clip (<http://forestfloor.soilweb.ca/definitions/forest-floor/>), the Coniferous site at the UBC Farm is unusual in that it has little to no F horizon. What has likely caused this?

[1 point]

4. Watch the “*How to Sample*” video clip posted at <http://forestfloor.soilweb.ca/classification/description/> of the “Forest Floor” website.

- a. What is needed to determine the bulk density of the forest floor?
- b. Why might we be interested in knowing the bulk density of the forest floor?

[2 points]

5. Under what conditions would you expect to find the following horizons:

- a. Thick Ah
- b. O
- c. Fa

Briefly explain your answers.

[6 points]

6. Explain the difference between the **Forest Floor** and a **Humus Form**. **[1 point]**
7. Identify the organic horizon type according to the following descriptions:
- a. Dominated by brownish needles from a tree.
 - b. Dark colour, few mineral particles apparent, greasy.
 - c. Dark colour, mineral particles apparent, granular soil aggregates present.
 - d. The organic matter is held together strongly, roots are apparent in the horizon, some yellow, fungal mycelia fungal mycelia is visible.
- [4 points]**

Attachment:

Data Collection Sheet

[3 points]

Total for lab 6 assignment **[23 points]**

BONUS: Complete the Forest Floor Quest at the UBC Farm!

[up to 5 points]

2 bonus points for completing the quest and getting a mark between 1 and 46

3 points for quest mark of 47-62

5 points for quest mark of 63-79

You may attempt the quest as many times as you like in order to get full number of points.