APBI 200
Lab 6 Assignment

1. Fill in the blanks:

(a) The forest floor refers to just organic (L, F, H) horizons, while forest humus forms include both forest floor (i.e., well drained organic horizons) and the _____ horizon.

(b) In poorly drained organic horizons, the Of horizon is high in _____.
[Note this answer requires multiple words]

(c) The Fm horizon is characterized by abundant _____ and _____.
[Note this answer requires multiple words]

(d) The _____ organic horizon is characterized by active mixing of organic and mineral material by _____.

(e) The mutually beneficial symbiotic relationship between a plant and a fungi is known as _____.

(f) Long threadlike **filaments** of fungi are called _____.

(g) **The network** of hyphae twisted together is known as _____.

[7 points]

2. Identify the **soil horizon** according to the following descriptions:

(a) Dark colour, mineral particles apparent, granular soil aggregates present.

(b) Dark colour, few mineral particles apparent, greasy.

(c) Dominated by brownish needles from a tree.

[3 points]

3. Briefly describe differences between coniferous and deciduous litter and their relative decomposition rates?
To help you answer this question, please watch "***In the Ecosystem***" video posted at http://forestfloor.soilweb.ca/definitions/forest-floor/)

[2 points]

4. The coniferous site at the UBC Farm, described in "***In the Ecosystem***" video clip (http://forestfloor.soilweb.ca/definitions/forest-floor/), is unusual since it has little to no F horizon. What has likely caused this?

[1 point]

5. 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			

[6 points]

6. Identify the forest humus based on the following descriptions:

(a) Loosely structured F horizon, gradual boundary between mineral soil and organic layers

(b) Abrupt boundary between mineral and organic layers

(c) Well decomposed organic matter incorporated in mineral soil horizon (Ah)

[3 points]

7. Briefly describe Frankia and their role in soils.
[bonus mark for a picture taken in your lab – does not need to be from your sample]

[1 point]

Attachment:

- Data Collection Sheet **[3 points]**

Total for lab 6 assignment **[26 points]**