Homework #4

1. There is a country song (Randy Travis: “Three wooden crosses”) that begins as follows:

   A farmer and a teacher, a hooker and a preacher,
   Ridin’ on a midnight bus bound for Mexico.
   One’s headed for vacation, one for higher education,
   An’ two of them were searchin’ for lost souls.

   The very last line has an interesting interpretation. The preacher is presumably searching for other people’s souls, while the hooker is searching for her own soul. Can you provide a predicate logic formalization of this? Make sure that your formalization captures both meanings and explain how the formalization works. (Please be very clear that we’re interested in the semantic structure here, not any possible religious content.)

2. Consider the following modal logic expression $\Box(p \rightarrow q) \implies (\Box p \rightarrow \Box q)$. Is this a universal truth? Is this true of any configuration of worlds and access restrictions? Explain and exemplify.

3. Give a brief example showing how mereology might be profitably applied to syntax.

4. Give a brief example showing how applying mereology to syntax might give rise to problems.

Things to keep in mind:

1. This is due by the beginning of class on Oct. 11!

2. Type it, double-spaced.

3. This can be no more than two double-spaced pages.

4. Keep in mind that there may be funny symbols here that you’ve never used or printed before. Leave time to make sure you have them right so that you can get this in on time.