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MAS.632 Conversational Computer Systems  
Fall 2008

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## Problem Set 2

1. The course notes discuss eight "layers" at which we can view speech in the context of a conversation. For each of the bottom seven layers, give an example of an "utterance" which correctly fits into the scope of one layer, but not of the layer ABOVE it. Explain why.

For example, a whistle sound can be described in terms of articulation, i.e. we squeeze our lips into a circle and blow a steady stream of air through them, but at least in English a whistle is not phonemic. All phonemes have an acoustic realization, but not all sounds produced by a person are phonemes.

2. Last week's problem set asked you to compare listening to a lecture on audio tape versus being physically present at the time. What are the advantages and disadvantages of analog audio tape vs. a digitized audio file in some particular format? Does your answer change if the tape is replaced by an audio CD?