CS381 Second Mid Term
Fall 2004 Friday Nov 5, 2004
Hollister B14 9:05-9:55

This is a 50-minute in class closed book exam. All questions are straightforward and you should have no trouble doing them. Please show all work and write legibly. Credit will be based on both correctness and clarity of answers.

1. Is every regular set a context-free language? Prove your answer. Credit will be based on both correctness and clarity of proof.

2. Let $L = \left\{101001000100001 \cdots 10^i 1 \mid i \geq 1\right\}$. Is L a context-free language? Prove your answer.

3. Give a set that is not recursively enumerable.

4. Describe how to convert a context-free grammar G to a nondeterministic pushdown automata M such that N(M)=L(G).