CSI 350 — Theory of Computation, Fall 2005

Handout #4 - Friday, November 4, 2005

1. HW #3 (two problems) due Wednesday (11/9) at the start of class.

2. **Homework (#3)**

   (a) Problem 1: Give an informal description for a Turing Machine that recognizes $\{a^n b^n c^n \mid n \geq 1\}$. Is this language regular, context-free, or Turing-recognizable? Explain why.

   (b) Problem 2: Give an informal description for a Turing Machine that recognizes $\{a^i b^j c^k \mid i + j = k \text{ and } i, j, k \geq 1\}$. Is this language regular, context-free or Turing-recognizable? Explain why.