University of Central Florida
School of Computer Science
COT 4210   Spring 2004

Prof. Rene Peralta
Extra credit HW

Due date: March 17

1. Problem 12, chapter 8, of text.

2. Problems 17a and 17e, chapter 8, of text.

3. Consider the following grammar over $\Sigma = \{a, b\}$:

   - $S \longrightarrow AB$;
   - $A \longrightarrow AS + Sb + a$;
   - $B \longrightarrow BS + aA + \lambda$;

   Convert the grammar to Chomsky Normal Form (please use rules $U \longrightarrow a$ and $V \longrightarrow b$). Show and comment (e.g. "getting rid of λ rule") your work.

4. Consider the following grammar over $\Sigma = \{a, b\}$:

   - $S \longrightarrow SAS + a$;
   - $A \longrightarrow AS + b$;

   Convert the grammar to Greibach Normal Form. Show and comment your work.