CSE 322 Winter 2004
Assignment #6

Due: Friday, Feb 27, 2004

Reading assignment: In Sipser's text read sections 2.2 and 2.3; afterwards, read pages 240-241 from section 7.2.

Problems:

1. Sipser's text, page 122, Problem 2.21 (a).

2. Sipser's text, page 120, Exercise 2.5 (b), (c), (d), (e), (f). Your informal descriptions should document your diagrams

3. Carry out the general top-down construction to convert a CFG to a PDA (the one done both in class and in the text) for the following grammar which generates balanced parentheses:

$$S \rightarrow (S) \mid SS \mid \epsilon$$

   Now, do the same for the bottom-up construction given in class.
   Finally, for each of the PDA's show the sequence of configurations that would cause the PDA to accept the input $(()())()$.

4. (Bonus) Sipser's text, page 122, Problem 2.21 (b).

5. (Bonus) Sipser's text, page 122, Problem 2.26.