Name: ______________________________ Student ID:

Math 166 - Theory of Computability - Fall 1999

Quiz #6 — November 11

1. Let $L_1 = \{a^i b^j a^k : i, j, k \geq 0, \text{ and } i = j \text{ or } j = k\}$. Give a context-free grammar for L_1. List the elements of your set V of non-terminals.

2. Give the state diagram of a PDA which recognizes the language $L_2 = \{a^i b^i a^j : i, j \geq 0\}$.