

# Theory of Computation

## Exercise 10: (Pushdown Automata)

Find Pushdown Automata for the following languages.

1.  $L1 = \{ a^n b^{2n} : n \geq 0 \}$

$$2. L2 = \{w \in \{a, b\}^* : n_a(w) > n_b(w)\}$$

\*3.  $L_3 = \{a^n b^m a^{n+m} : n, m \geq 1\}$

(Homework 8)