

Review 13

Automata & Theory of Computation

Student ID:

Name:

1. Show the following languages are not regular.

(1) $L = \{(ab)^n a^k : n > k, k \geq 0\}$

(2) $L = \{a^n b^k c^{n+k} : n \geq 0, k \geq 0\}$

$$(3) \ L = \{a^n : n \text{ is a perfect square}\}$$

$$(4) \ L = \{a^n b^l : n \neq l\}$$