

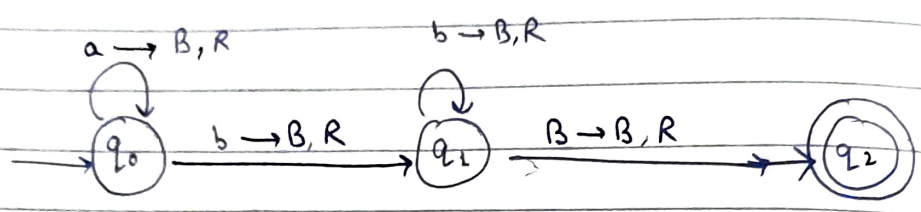
CS 303

Assignment - 9

Tanusi Mittal

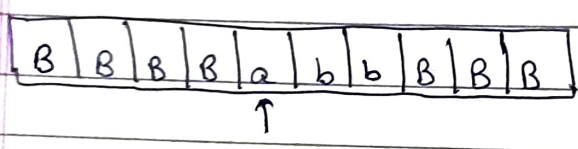
1901CS65

Que 1:-

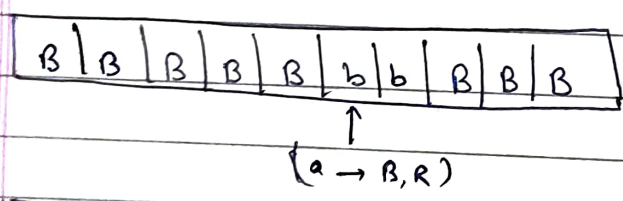


$M = \{\{q_0, q_1, q_2\}, \{a, b\}, \{a, b, B\}, \delta, q_0, B, \{q_2\}\}$

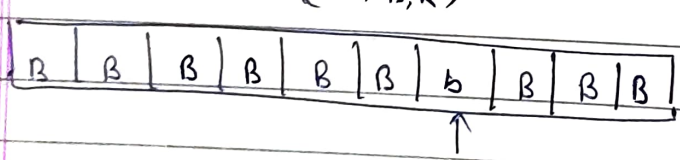
string $x = abb$



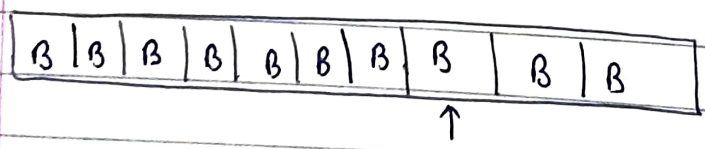
Current state
 q_0



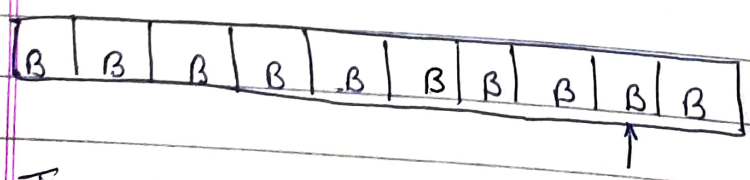
q_0



q_1



q_1



q_2

The trace is $\Rightarrow q_0 abb \vdash q_0 bb \vdash q_1 b \vdash q_1 \vdash q_2$

Also; string $\Lambda = bb$

The trace is $q_0 bb \vdash q_1 b \vdash q_1 \vdash q_2$

(b) The regular expression for the above Turing machine is a^*bb^*

Ques 2: $L = \{0^n 1^n 0^n \mid n \geq 0\}$

