

Assignment Sheet 3

Mahiem Agrawal

Maulik Chhetri

Subigya Paudel

Exercise 4

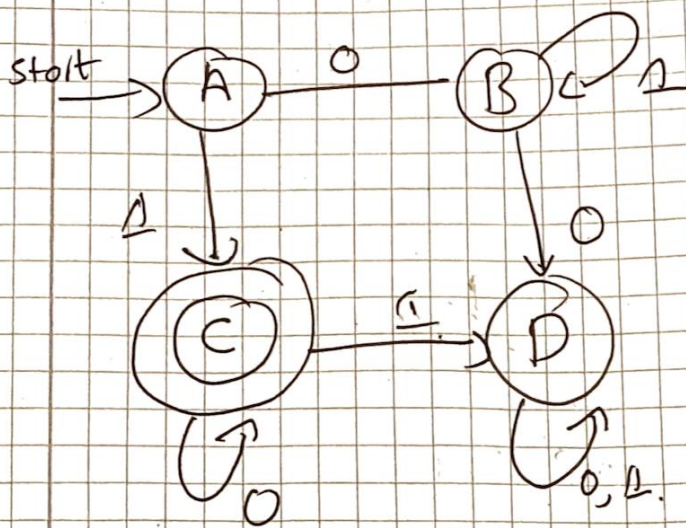
a) $L = \{ w \text{ strings over } \{0, 1\} \mid$

w starts and ends with
the same symbol or
is a single '1'.

b) $L = \{ w \text{ strings over } \{0, 1\} \mid$
~~starts with~~

w starts with zero or
one '0', followed by
zero or arbitrary '1's and
ends with zero or one
'0'.

Exercise 2

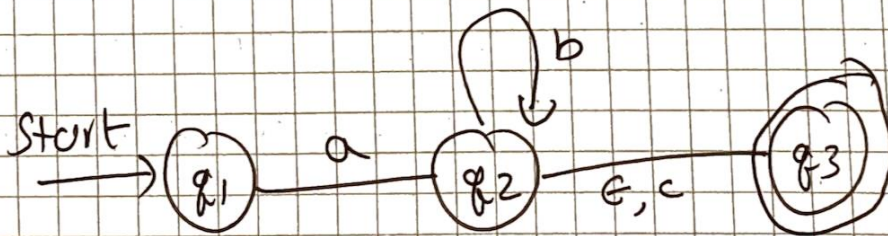


Therefore the language is

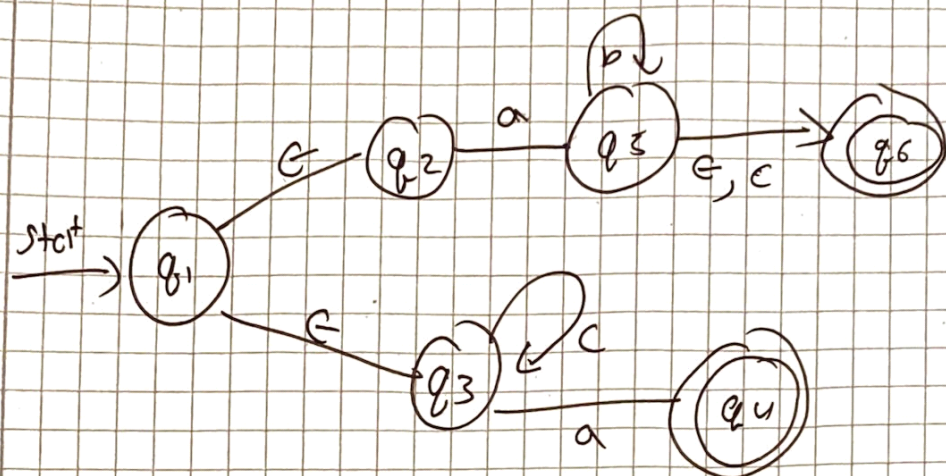
$$L(10^*)$$

Exercise 3

a) $R_1 = ab^* (\epsilon \cup c)$

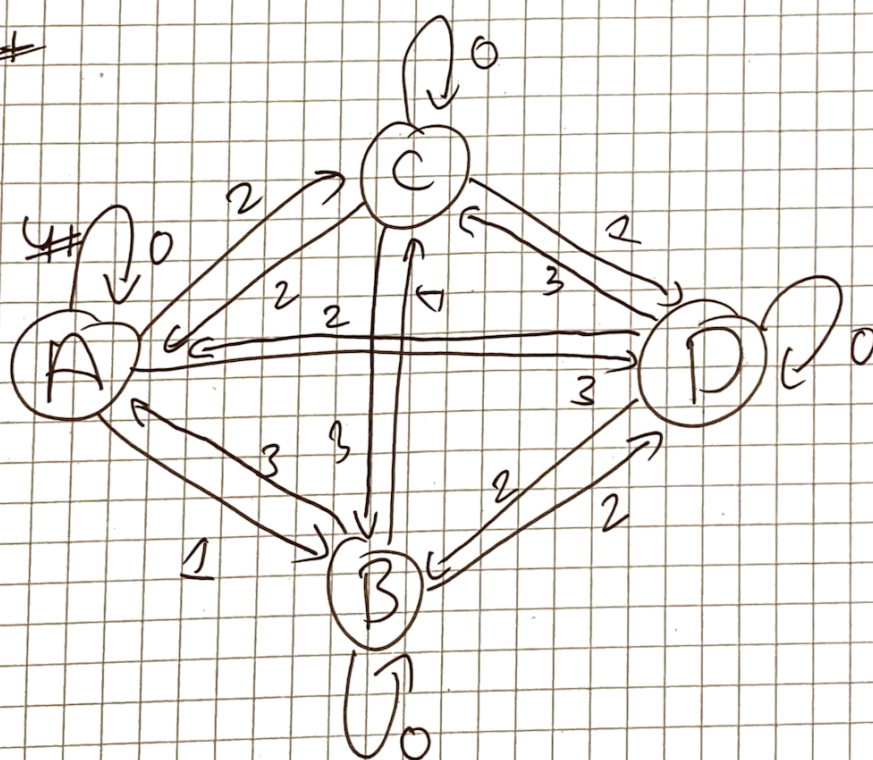


b) $R_2 = ab^*(\epsilon \cup c) \cup c^*a.$



Exercise 4

~~let~~



where A is $(4k+0)$, B is $(4k+1)$
 C is $(4k+2)$, D is $(4k+3)$.