

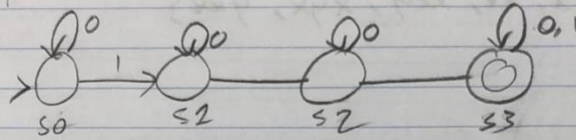
Amir Ayoub

Cs 314-07

Hw 02

(c)

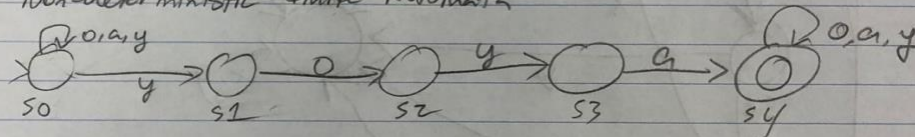
A) DFA:



B) $0^*10^*10^*1(1+0)^*$

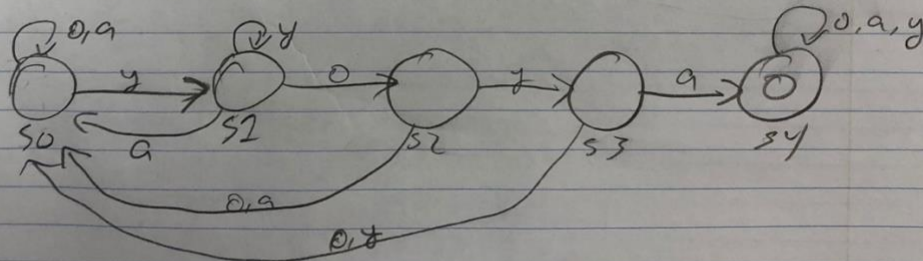
(1) A) $L_3 = \{0, a, y\}$

string "yoya" $\rightarrow L_3$, should have yoya as a substring
Non-deterministic Finite Automata



B) $L = (0+a+y)^*yoya(0+a+y)^*$

C) Deterministic Finite Automata



② a) a^*b^* \rightarrow Set of strings of a's or b's of any length including the null string

so $L = \{\epsilon, a, b, aa, bb, bbb, aaa, \dots\}$

B) $(ab)^*$ \rightarrow Set of strings of ab of any length including null
 $L = \{\epsilon, ab, abab, ababab, \dots\}$

③

$L = \{x, xx, xxxy, xyx, yxx\}$

DFA

