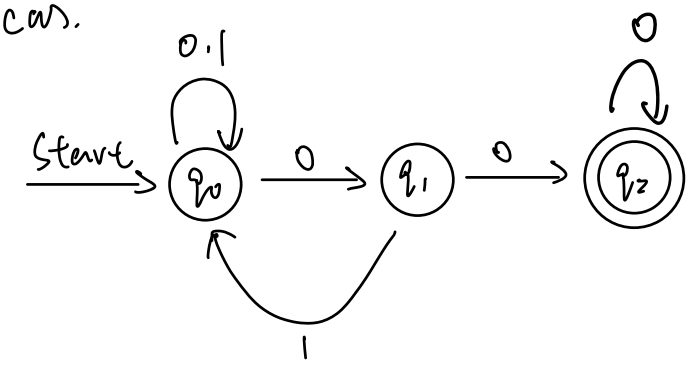
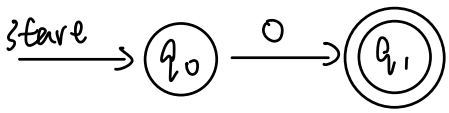
(1)

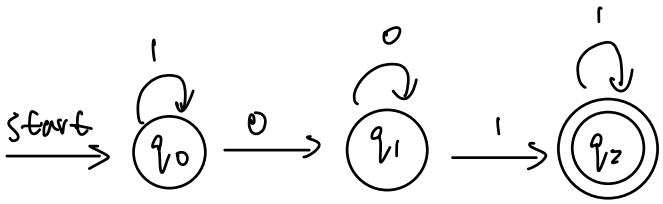
(a).



(b).



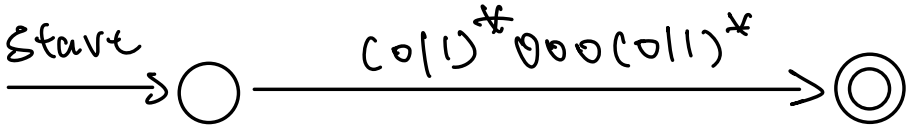
(c)



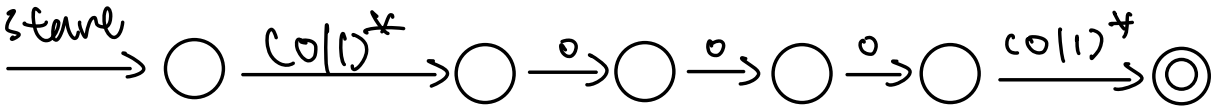
(2)

(a)

Step 1:

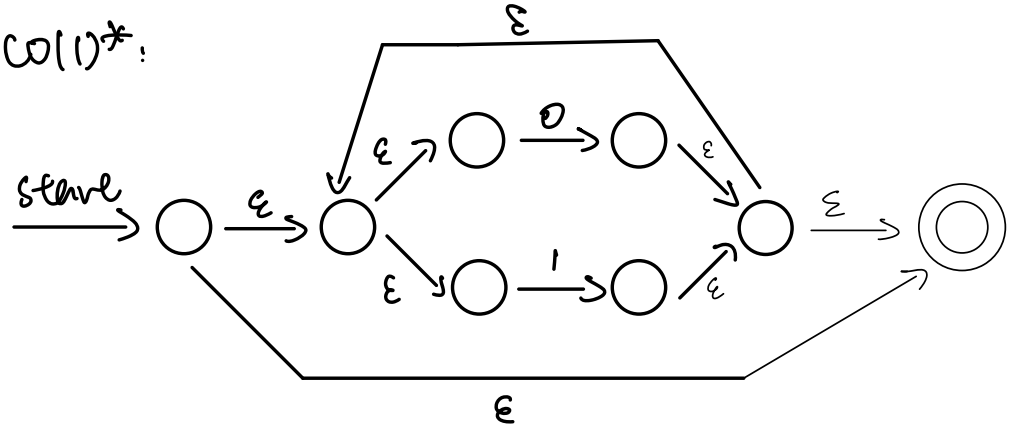


Step 2:

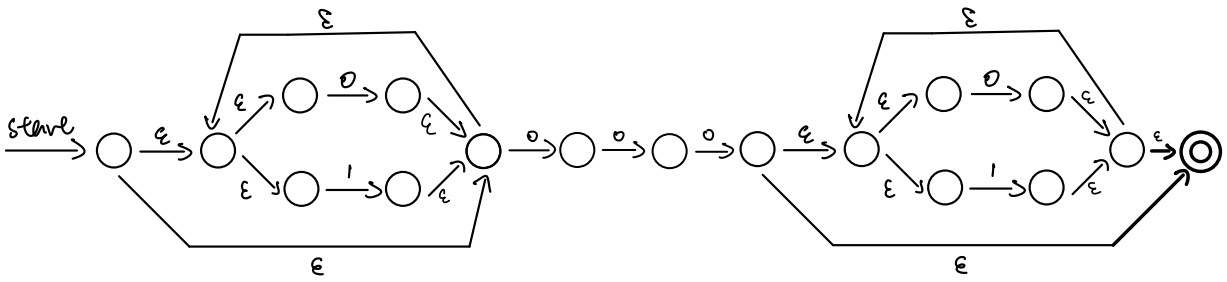


Step 3:

(0|1)*:



Step 4:



(b)

step1:

step2:

step3:

$((00)^*(11))^*$:

Step 4:

(c)

(3)

Regular Expression:

$$L = \{w \mid (0^*1^*)\}$$

NFA:

DFA: