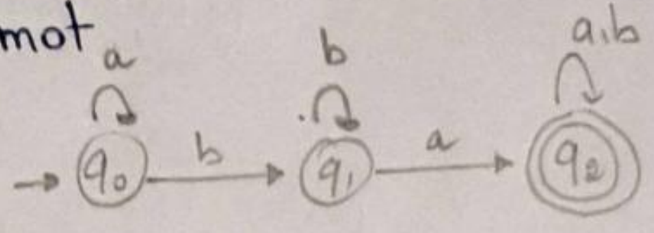
tdn°1

EX3 :

$\Sigma = \{a, b\}$

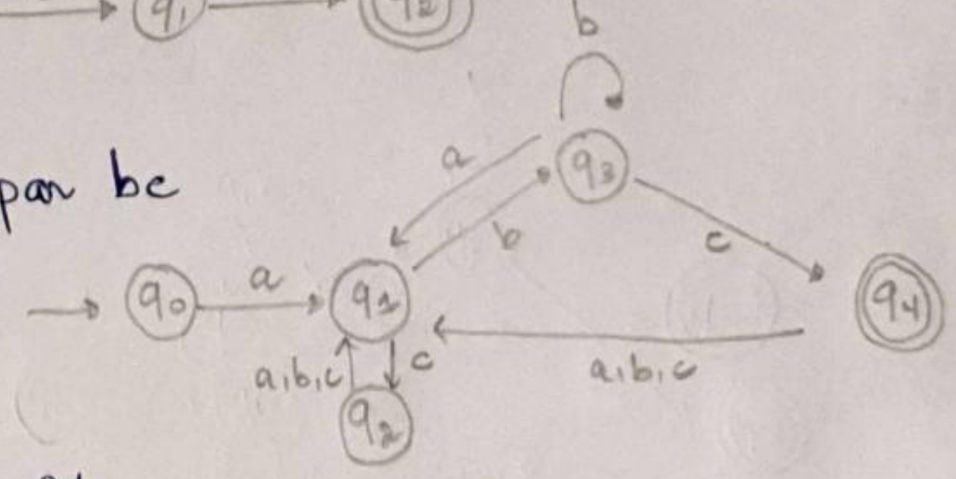
a : m contient ba comme sous mot

$(a|b)^*\ ba\ (a|b)^*$



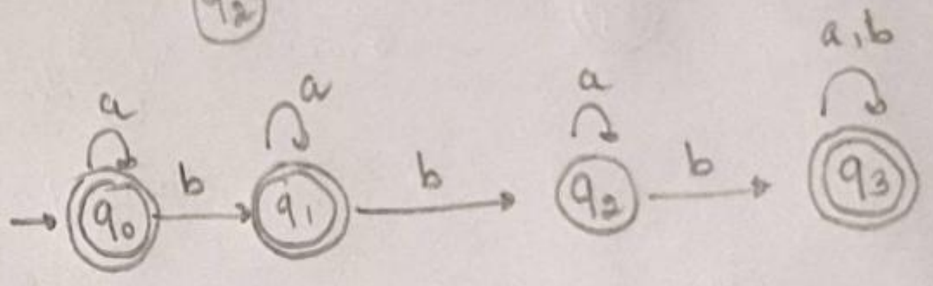
b : m commence par 'a' et se termine par bc

$a\ (a|b|c)^*\ bc$



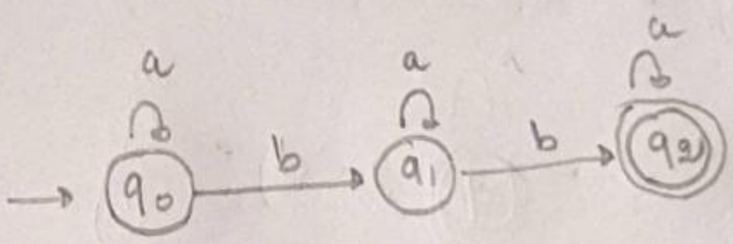
c : m ne contient pas un nombre de b = 2l

$(a^* | a^*ba^* | a^*ba^*ba^*b^+(a\ b))$



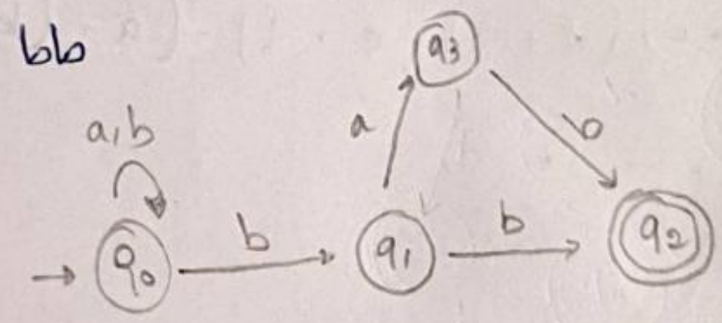
d : m contient un nombre de b = 2l

$a^*b\ a^*b\ a^*$



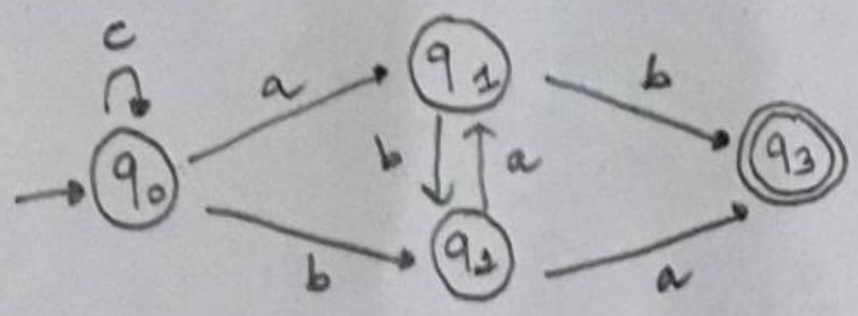
e : m se termine par bab ou bb

$(a|b)^*\ b\ a?\ b$



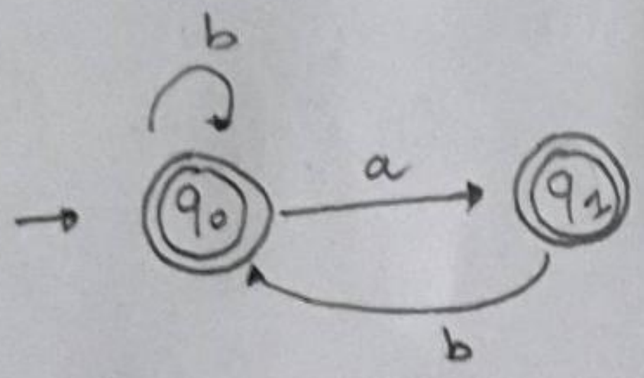
f : m contient au plus 2 a et au moins 2b

Question2: ER dans $\Sigma = \{a, b, c\}$



$c^*((ab)^*a? \mid (ba)^*b?)$

Question3: ER. $\Sigma = \{a, b\}$: l'ensemble de mots qui ne contient jamais 2 a consec



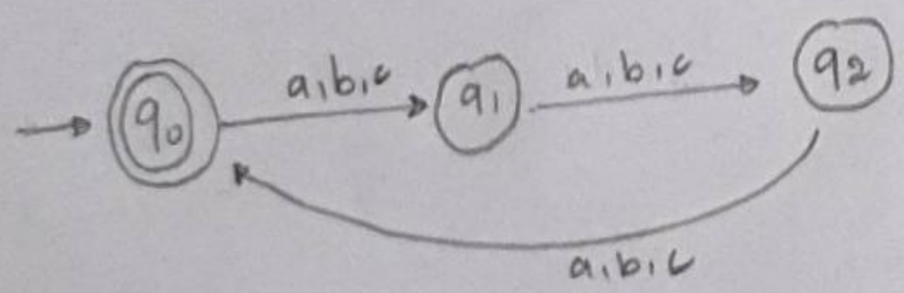
$(a \mid (b^*a?b)^*)?$

Question3:

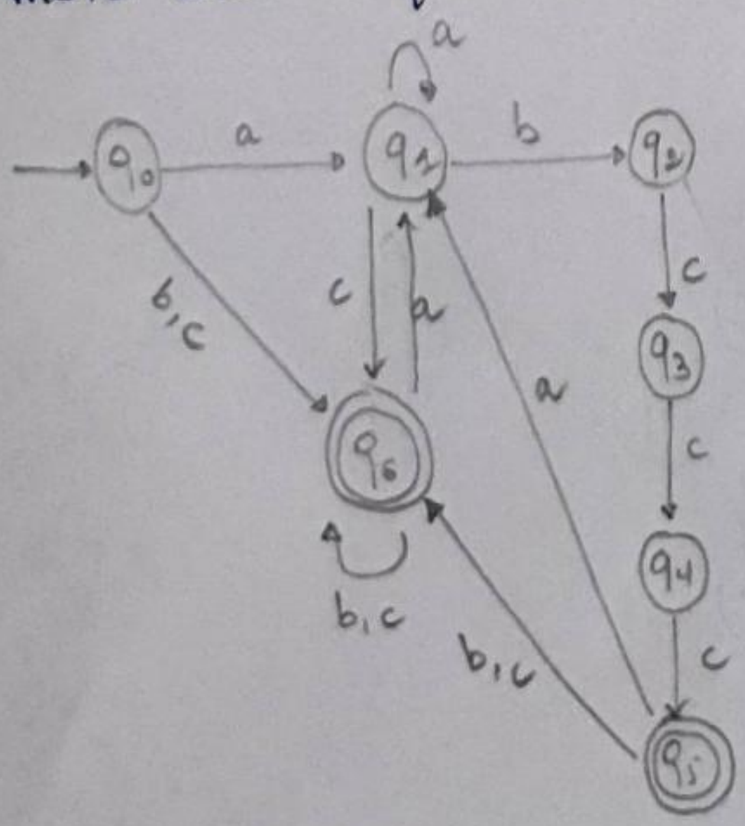
- $(a + ba^*)^* + b(a + (b + aba)^*)^*$ oui
- $(\lambda + b)(aa^* + bb^*a)^*$ non
- $(\lambda + a)(\lambda + b)(\lambda + c)(\lambda + d)(e + f)$ non.
- $(a + (b + (c + d)^*)^*)^*$ oui

EX4: $\Sigma = \{a, b, c\}$

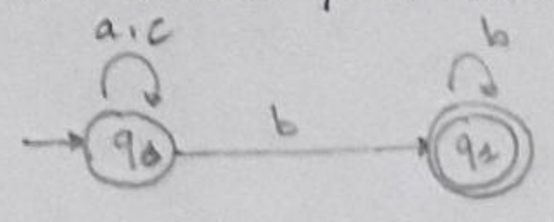
a: ensemble des mots dont la longueur est multiple de 3



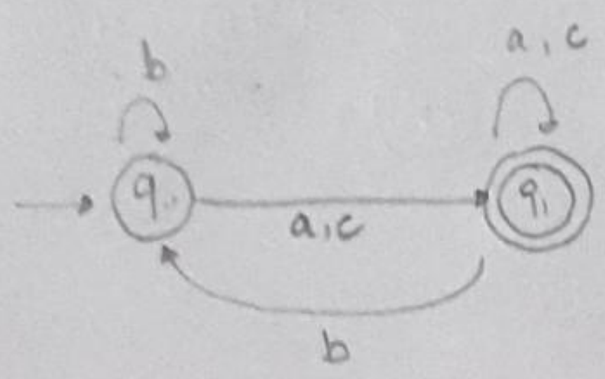
b: ensemble de mots dans lesquels chaque occurence de 'ab' est suivie de ccc



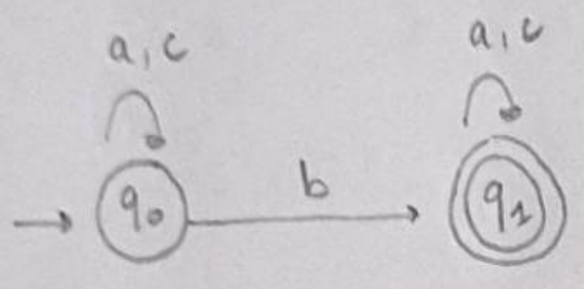
c : l'ensemble de mots qui se terminent pas b



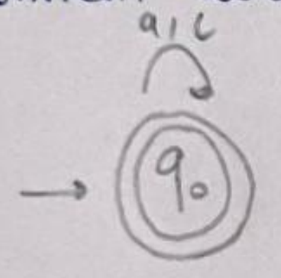
d: les mots qui ne se terminent pas par b



e : les mots qui contient exactement 1 seul b



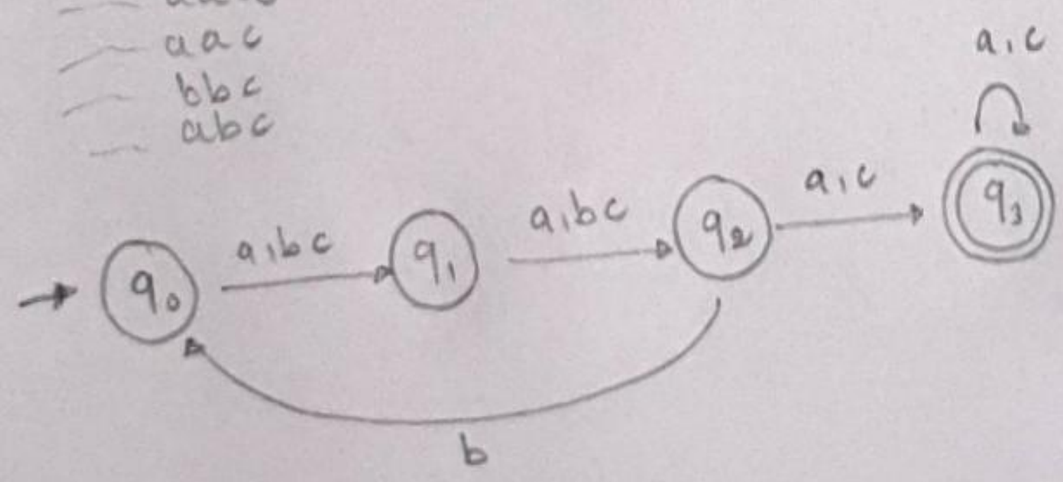
f: les mots ne contient aucun b



g: les mots qui comportent au moins 3 lettres et la 3ème est a ou c

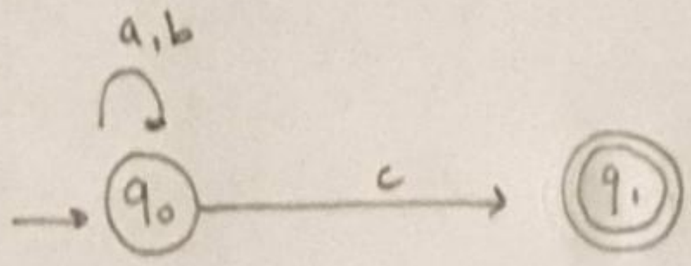
aaa
aac
bbc
abc

abacb ✗

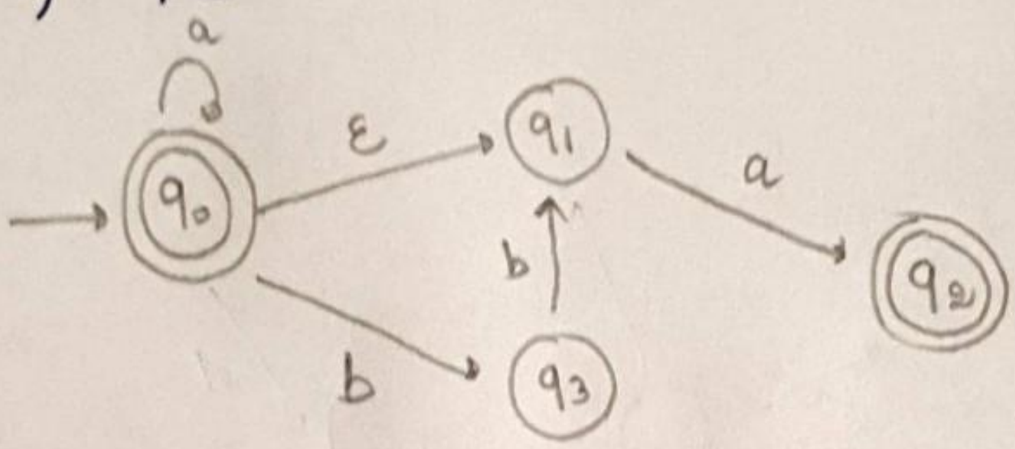


EX6:

a) $(a|b)^* c$



b) $a^* (\varepsilon | bb)a | \varepsilon$



EX5: