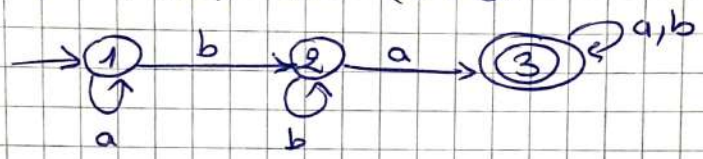
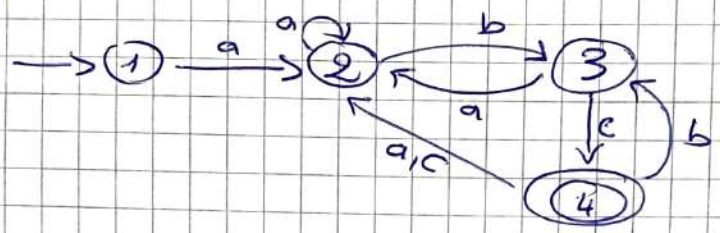
Boumouzouna Brahim Vall

Exo3:

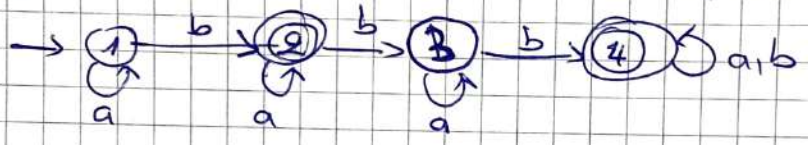
a) ER : $(a|b)^* ba\ (a|b)^*$



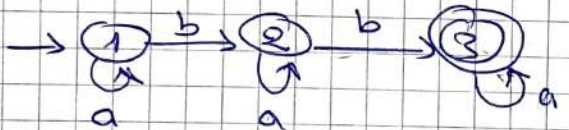
b) ER : $a(a|b|c)^* bc$



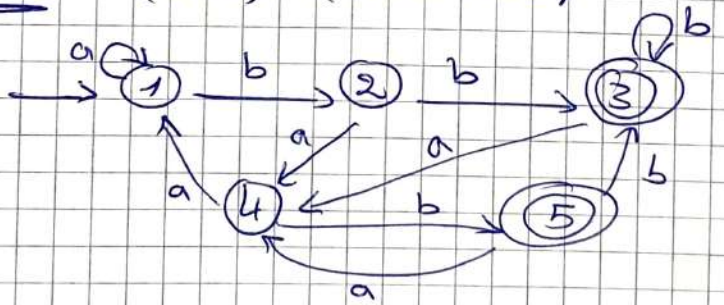
c) ER : $a|(a^*ba^*)|(a^*ba^*ba^*b(a|b)^*)$



d) ER : $a^*ba^*ba^*$

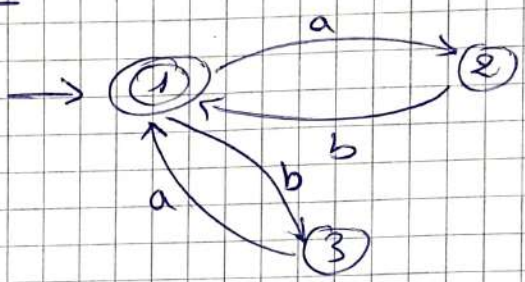


e) ER : $(a|b)^*(bab|bb)$

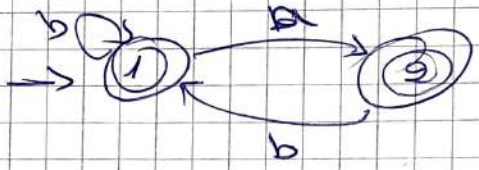


f)

Q2 : ER : $c^* + ((ab)^+ a) + ((ba)^+ b)$



Q3 : ER : $(b^*(a)?) + (b^* a b^+)^*$

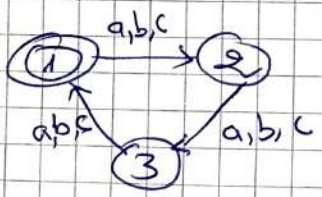


Q4 :

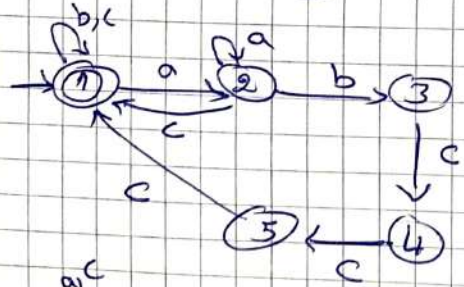
- $(a + ba^*)^+ + b(a + b + aba)^*)^*$: vrai
- $(1+b)(aa^* + bb^*a)^*$: faux
- $(1+a)(1+b)(1+c)(1+d)(e+f)$: faux
- $(a + (c+d)^*)^*$ vrai

Exo 4 :

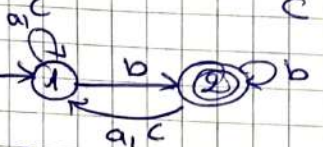
a)



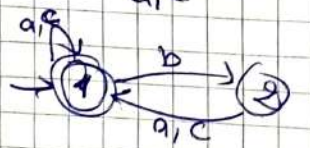
b)



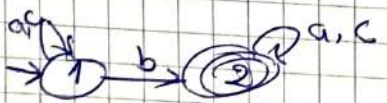
c)



d)

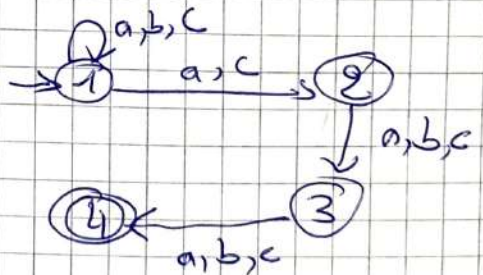


e)

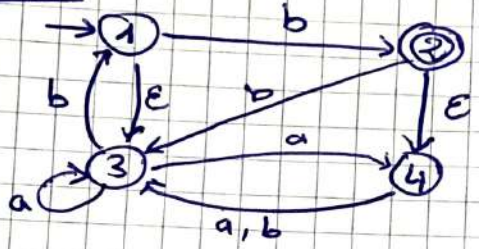


f)

g)



Exo 5°

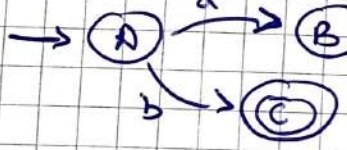


ε fermeture (1) = {1, 3} = A → (A)

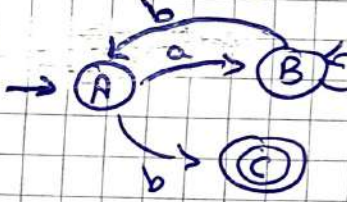
Transiter (A, a) = Transiter ({1, 3}, a) = {3, 4} = B

Transiter (A, b) = Transiter ({1, 3}, b) = {1, 2, 3, 4} = C

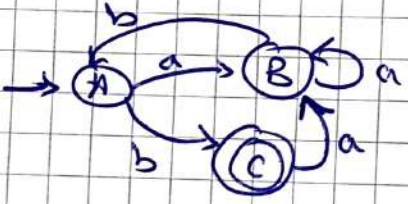
Transiter (B, a) = Transiter ({3, 4}, a) = {3, 4} = B



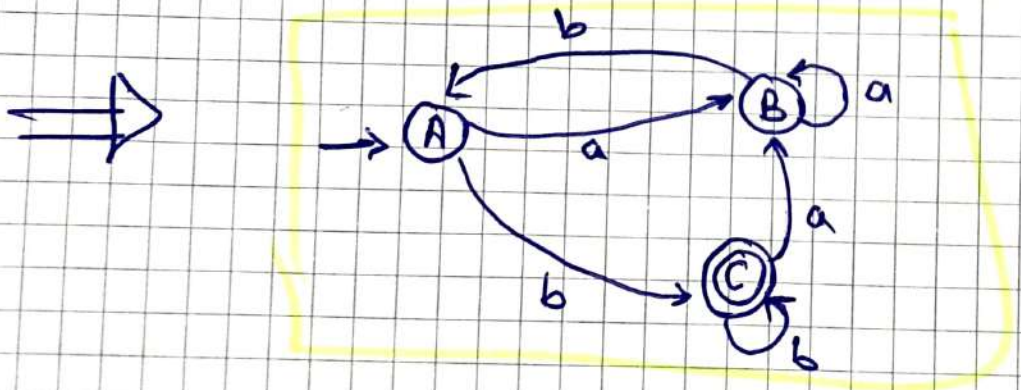
Transiter (B, b) = Transiter ({3, 4}, b) = {1, 3} = A



Transiter (C, a) = Transiter ({1, 2, 3, 4}, a) = {3, 4} = B

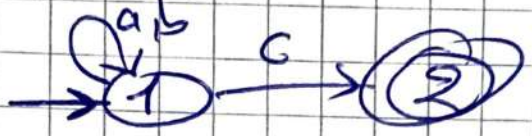


Transiter (C, b) = Transiter ({1, 2, 3, 4}, b) = {1, 2, 3, 4} = C



EX 6 :

a) ER = $(a+b)^* c$



b) ER : $a^*(\varepsilon + bb)a + \varepsilon$