Nom : HASSANI Prénom : ELMEHDI Parcours : ILISI1

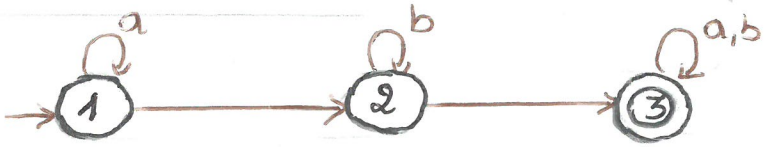
TD (1) : Analyse lexicale

Exercice (3) :

a)-

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

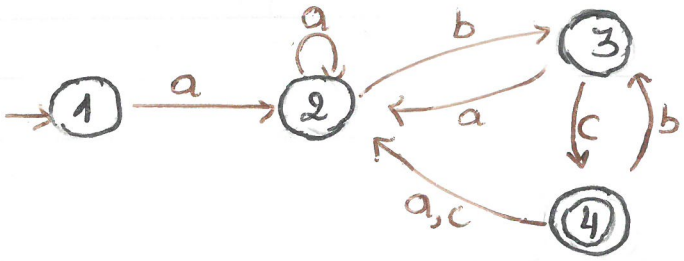
Automate :



b)-

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

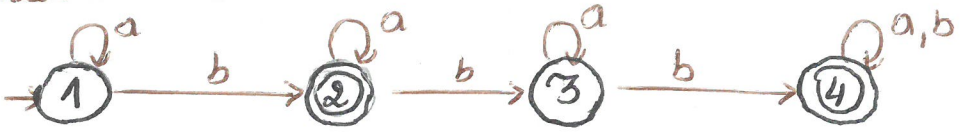
Automate :



c)-

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

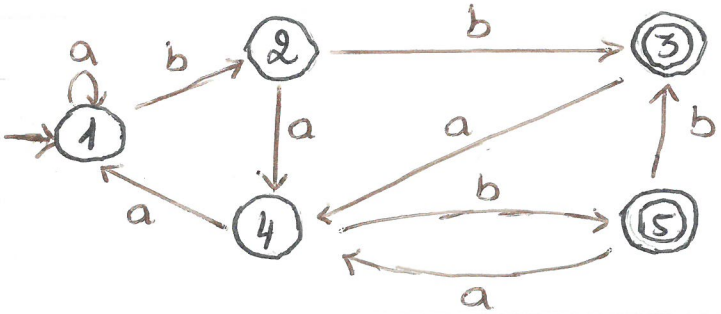
Automate :



e)-

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

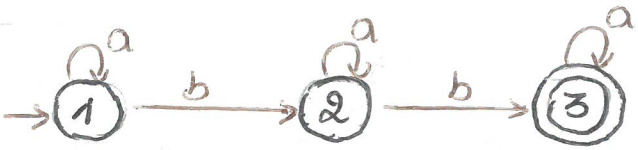
Automate :



d)-

ER: $a^* b a^* b a^*$

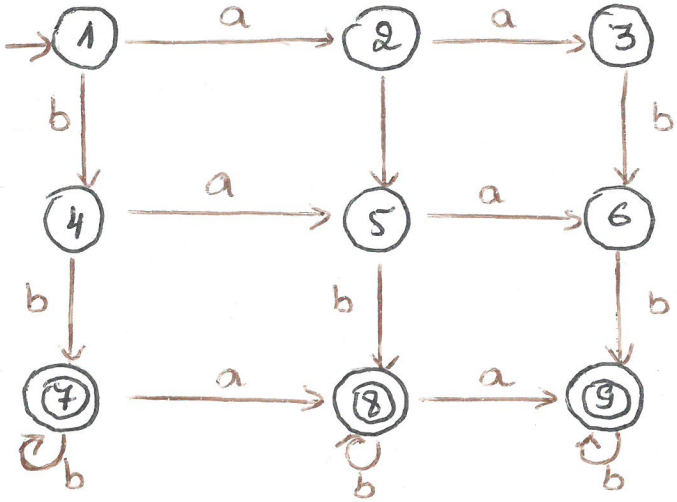
Automate:



f)-

ER: $(aabbb^*) | (baabb^*) | (abbb^*) | (bbb^*) | (baabb^*) | (bbaab^*) | (babab^*) | (ababb^*) | (bbab^*) | (baabb^*) | (babb^*) \ldots$

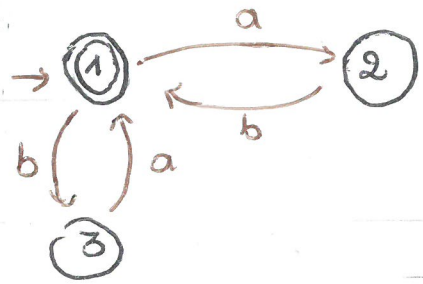
Automate:



Question (2):

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

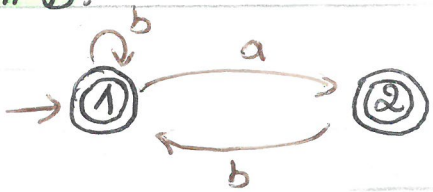
AFD:



Question (3):

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

AFD:

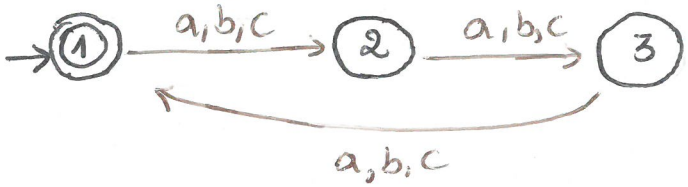


Question (3):

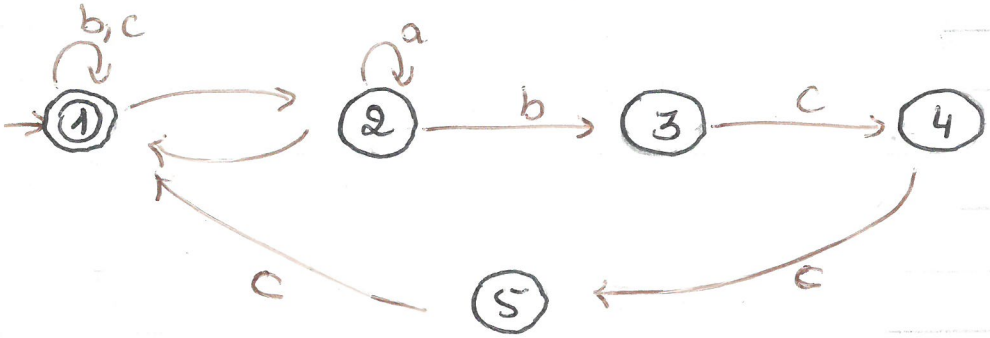
1) ER: $(a + ba^*) + b(a + (b + aba)^*)^*$ $\Rightarrow$ Contient ϵ
2) ER: $(1 + b)(aa^* + bb^* a)^*$ $\Rightarrow$ Ne contient pas ϵ
3) ER: $(1 + a)(1 + c)(1 + d)(e + f)$ $\Rightarrow$ Ne contient pas ϵ
4) ER $a + (b + (c + d)^*)^*)^*$ $\Rightarrow$ Contient ϵ

Exercice (4):

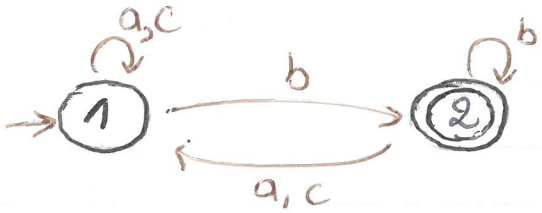
a)- Les mots de longueur est un multiple de 3.



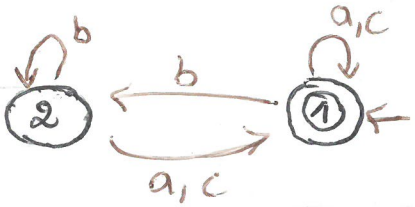
b)- L'ensemble de mots dans lequels chaque ab est suivie de ccc



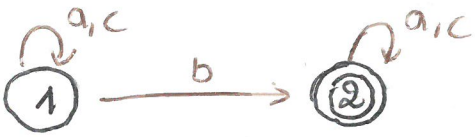
c)- L'ensemble des mots se terminant par b :



d)- L'ensemble des mots se terminant pas par b:

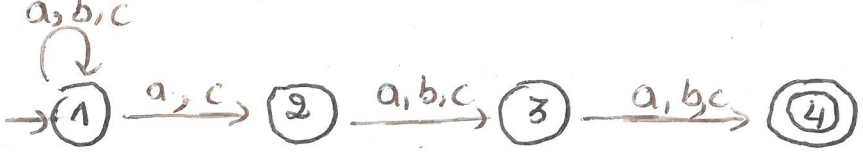


e)- L'ensemble de mots contenant exactemant un b:



f)- L'ensemble de mots ne contenant aucun b :

h)- Au moins 3 lettres dont la 3ème a partir de la fin est un a ou c :



Exercice (6):

a). ER: $(a+b)^* c$

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