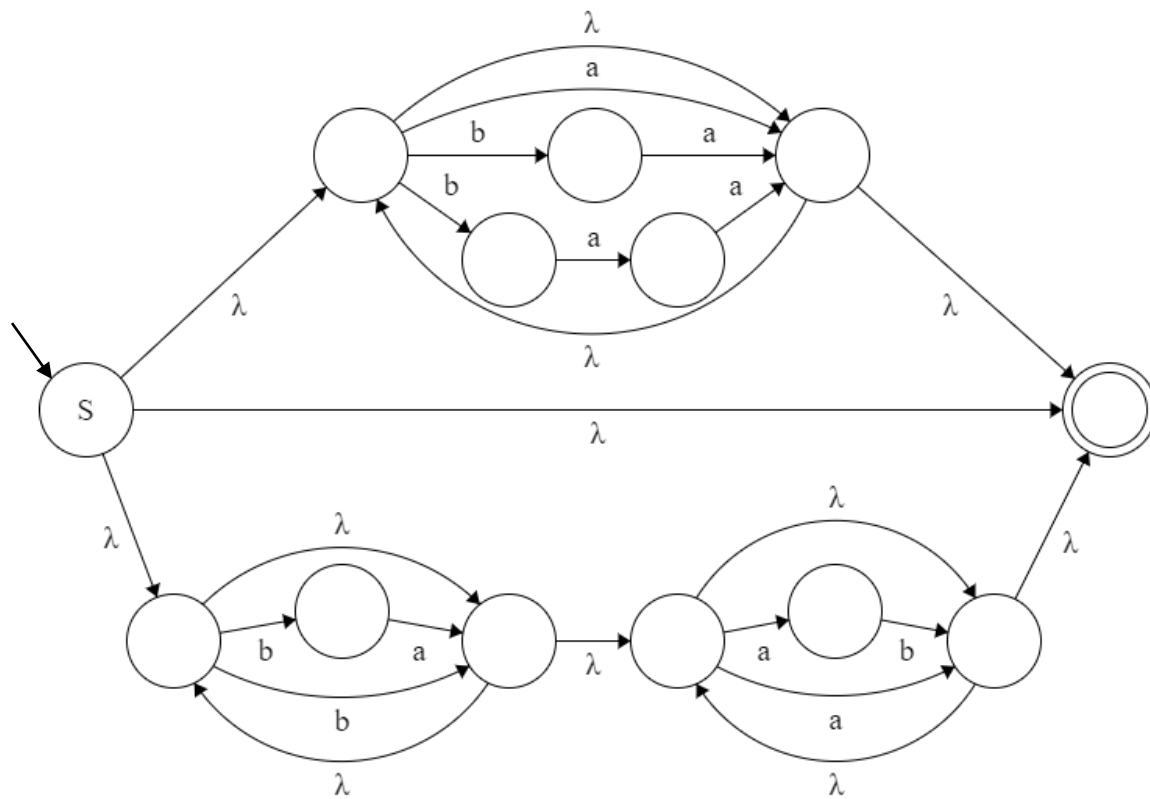


1)

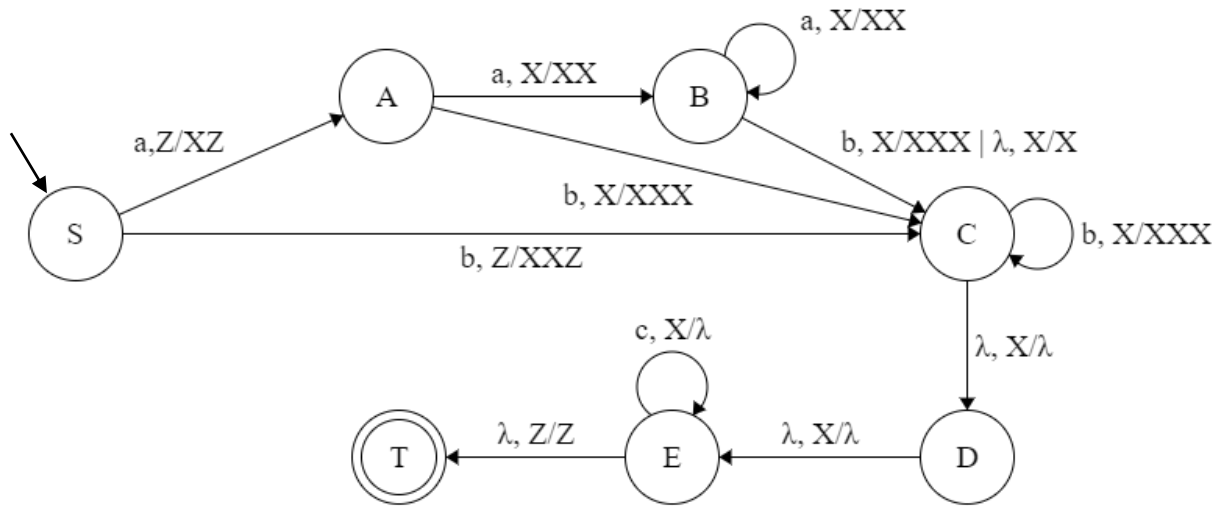


2)

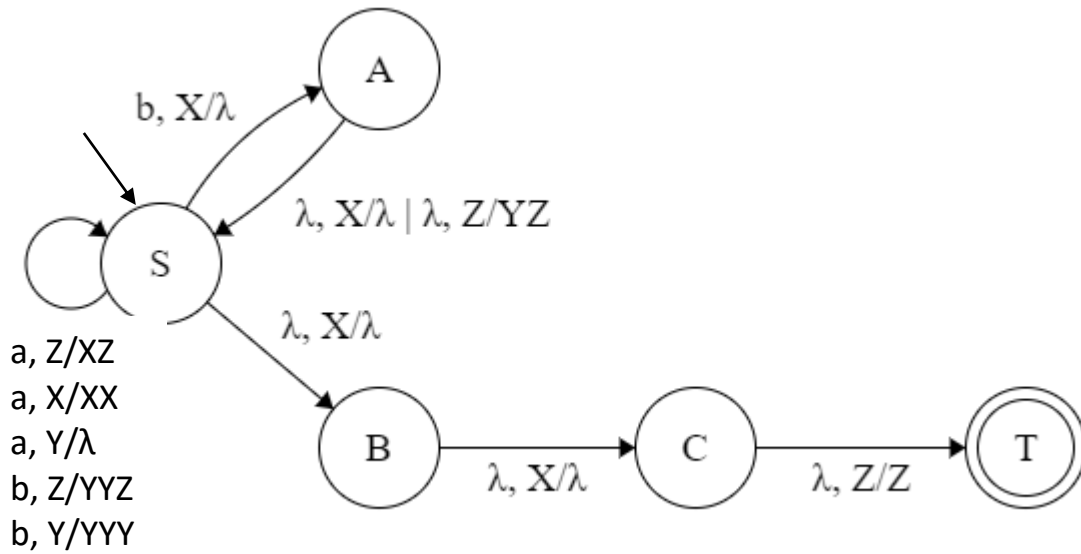
$S \rightarrow aA \mid bY$
 $A \rightarrow aA \mid bB$
 $B \rightarrow aA \mid bB \mid \underline{\lambda}$
 $Y \rightarrow aZ \mid bY$
 $Z \rightarrow aZ \mid bY \mid \underline{\lambda}$

3) $a(a+bb^*a)^*bb^* + b(b+aa^*b)aa^*$

4)



5)



6) $S \rightarrow aaA \mid abBc \mid bB$

$A \rightarrow aAc \mid \lambda \mid B$

$B \rightarrow bBcc \mid \lambda$

7) $S \rightarrow aaB \mid aBa \mid aaB \mid$

$B \rightarrow baaB \mid baBa \mid bBaa \mid Bbaa \mid abaB \mid abBa \mid aBba \mid Baba \mid aabB \mid aaBb \mid aBab \mid Baab \mid \lambda$