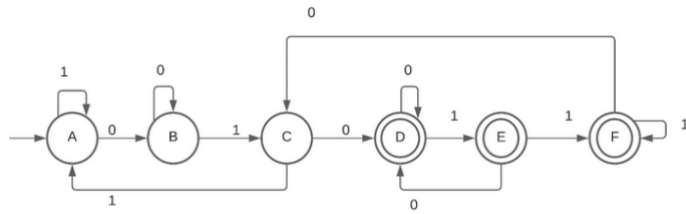
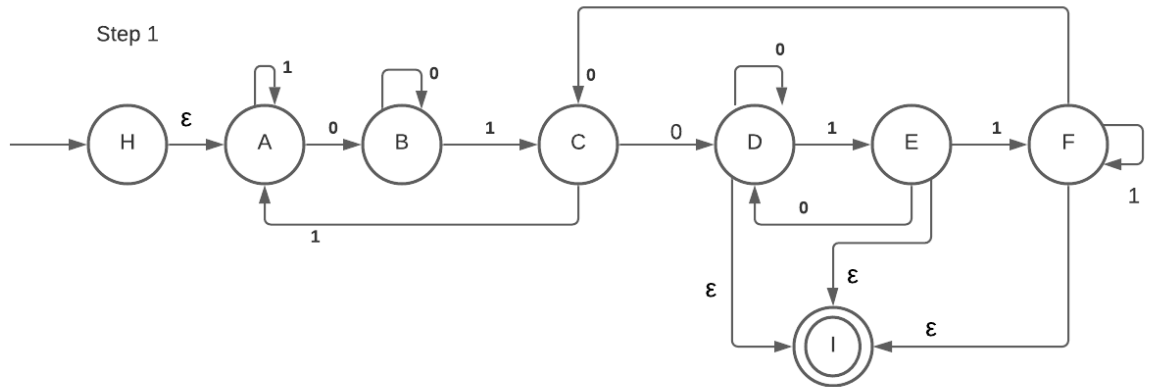


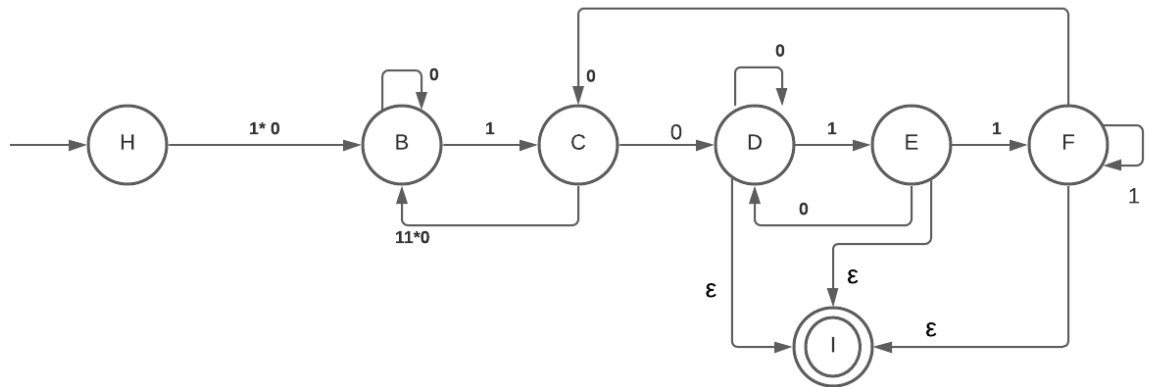
Question 1



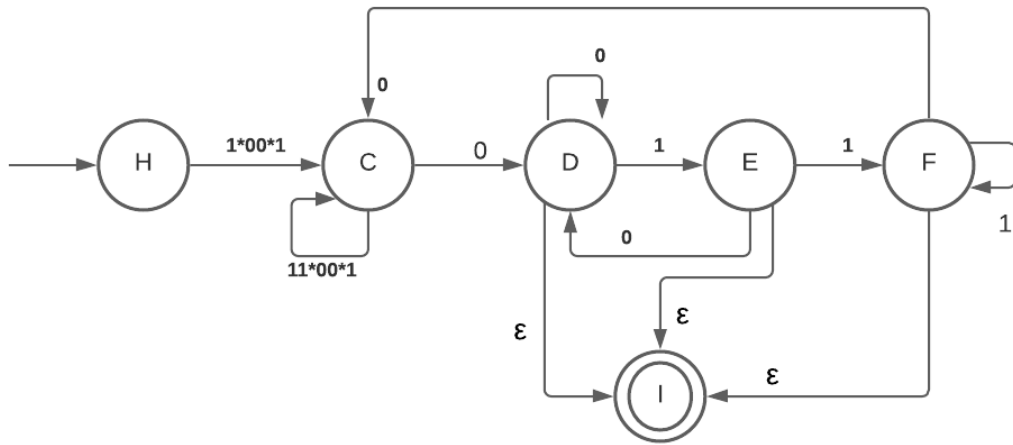
Step 1



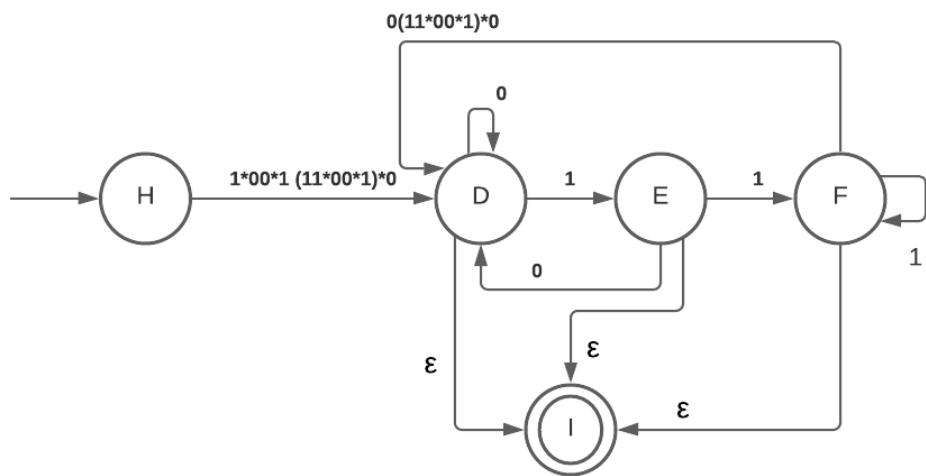
Step 2



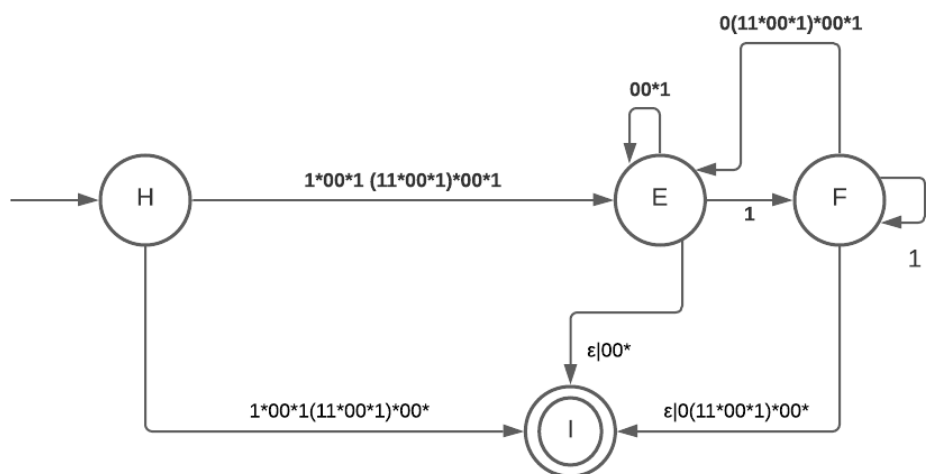
Step 3



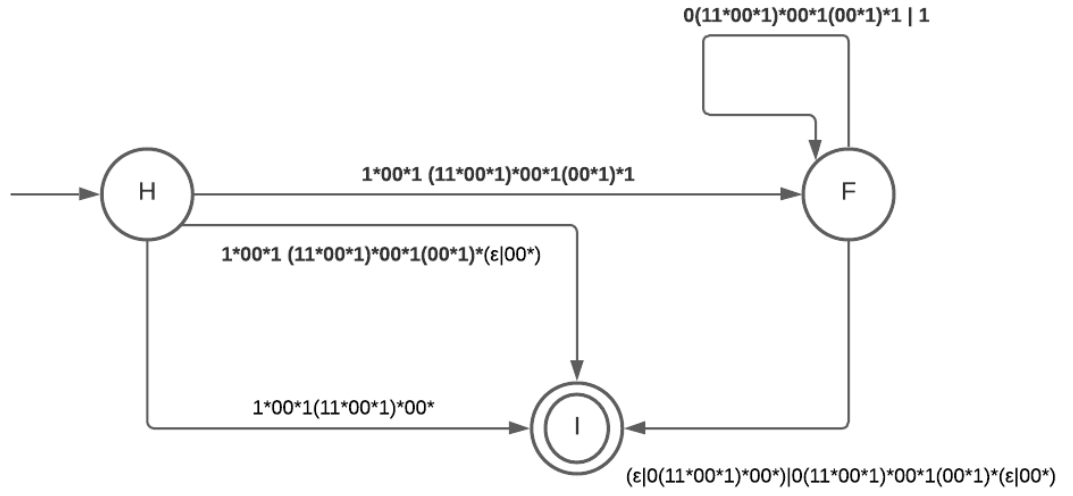
Step 4



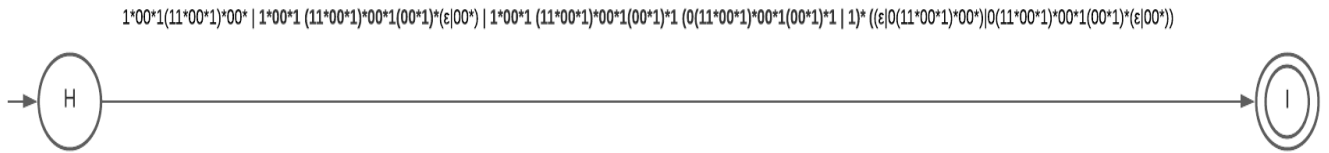
Step 5



Step 6



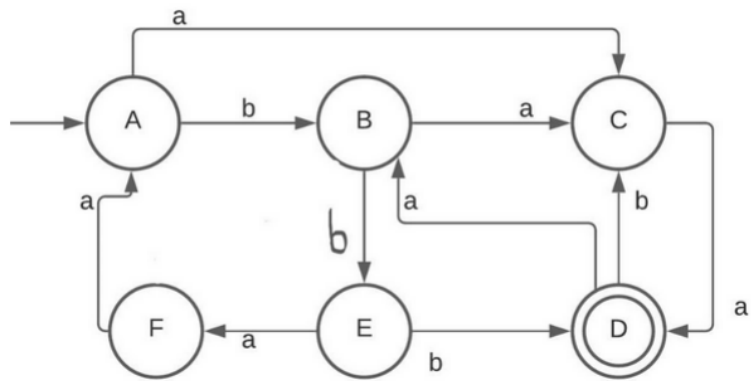
Step 7



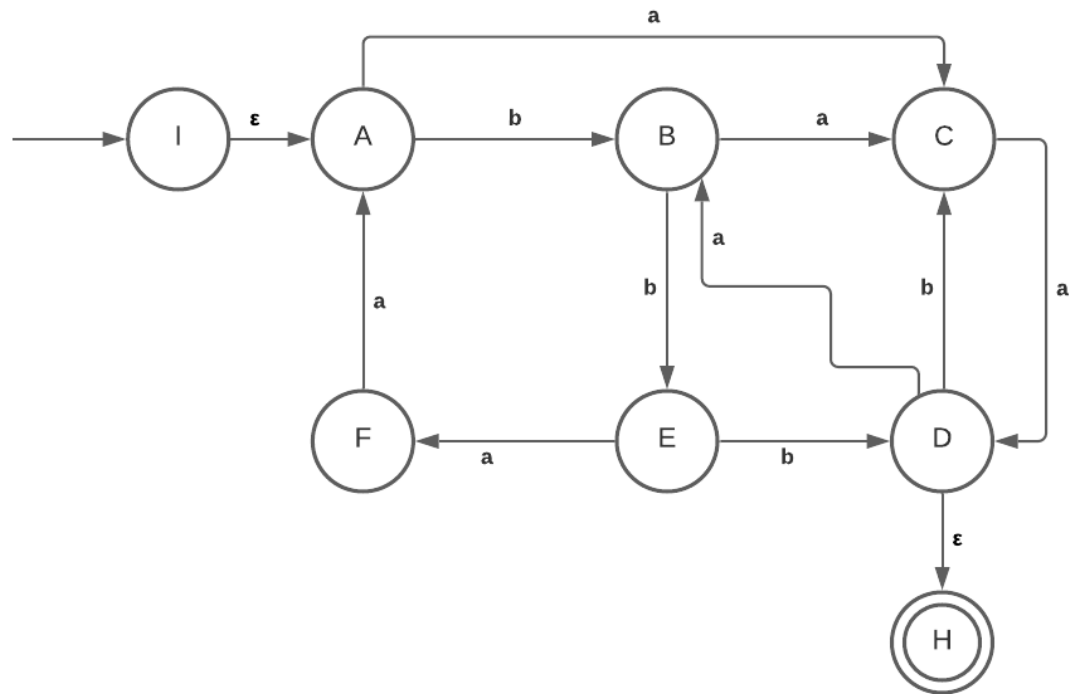
Regex: $1^*00^*1(11^*00^*1)^*00^* \mid 1^*00^*1(11^*00^*1)^*00^*1(00^*1)^*(\epsilon \mid 00^*) \mid 1^*00^*1(11^*00^*1)^*00^*1(00^*1)^*1(0(11^*00^*1)^*00^*1(00^*1)^*1 \mid 1)^*(\epsilon \mid 0(11^*00^*1)^*00^*) \mid 0(11^*00^*1)^*00^*1(00^*1)^*(\epsilon \mid 00^*)$

Question 2

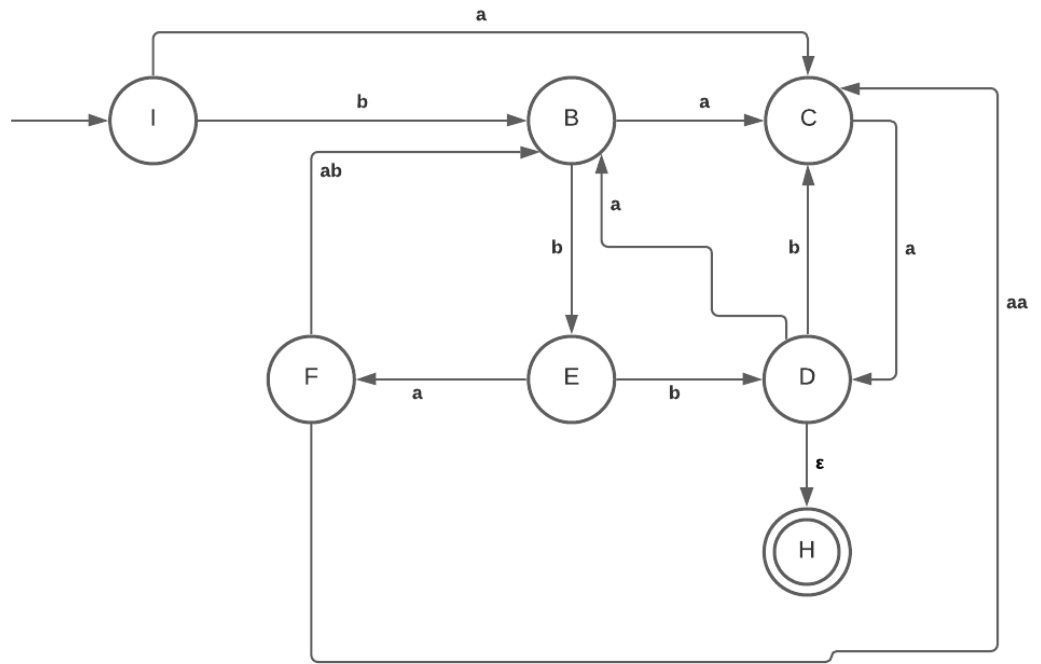
2.



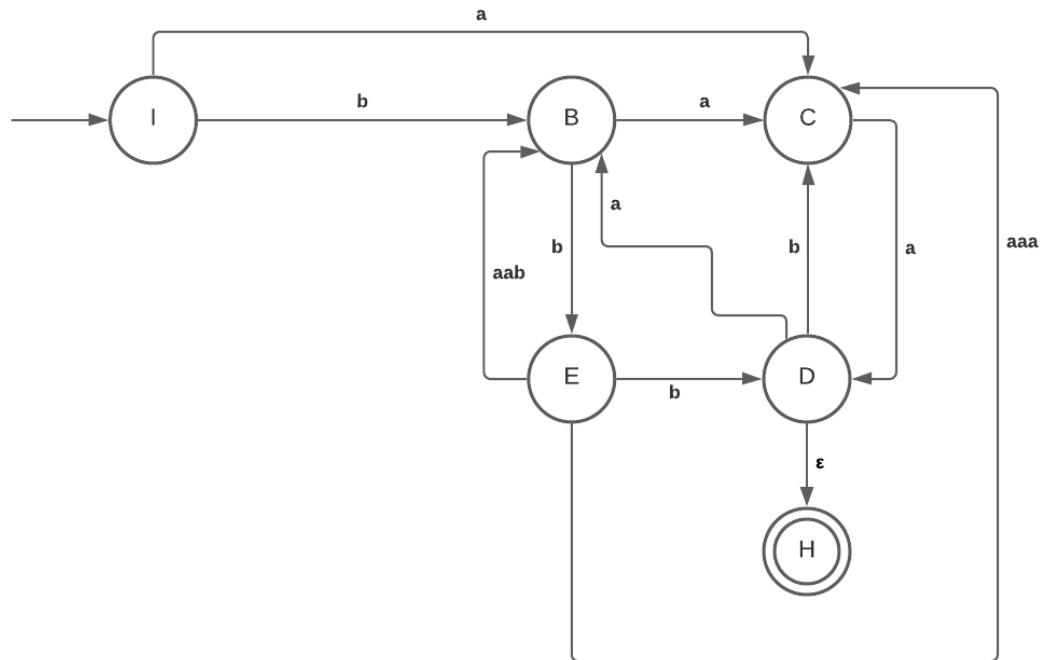
Step 1



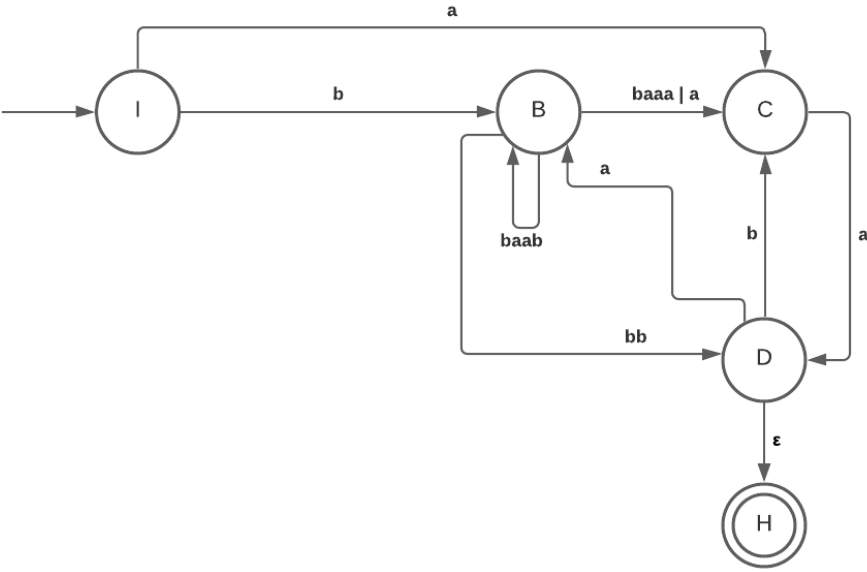
Step 2



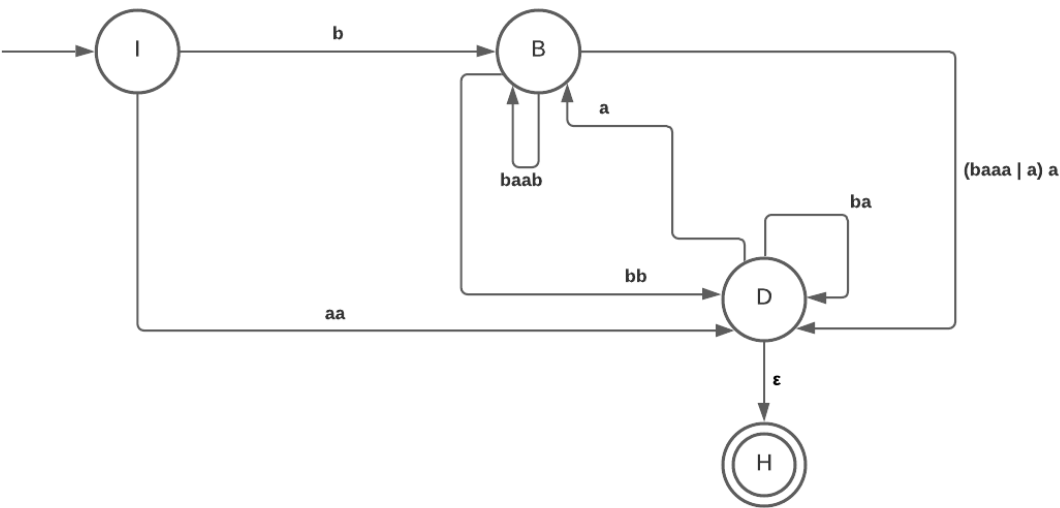
Step 3



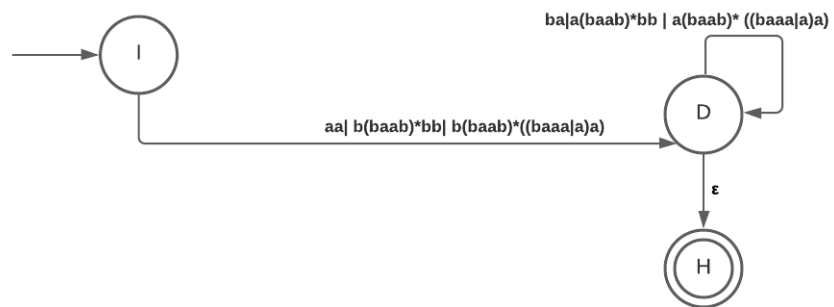
Step 4



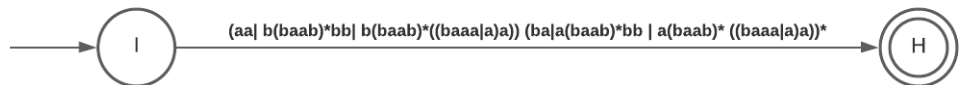
Step 5



Step 6



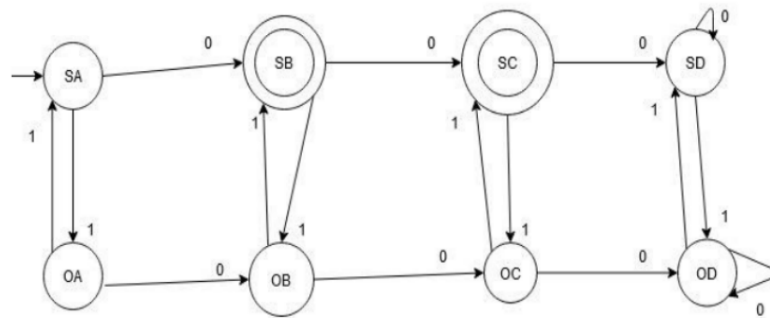
Step 7



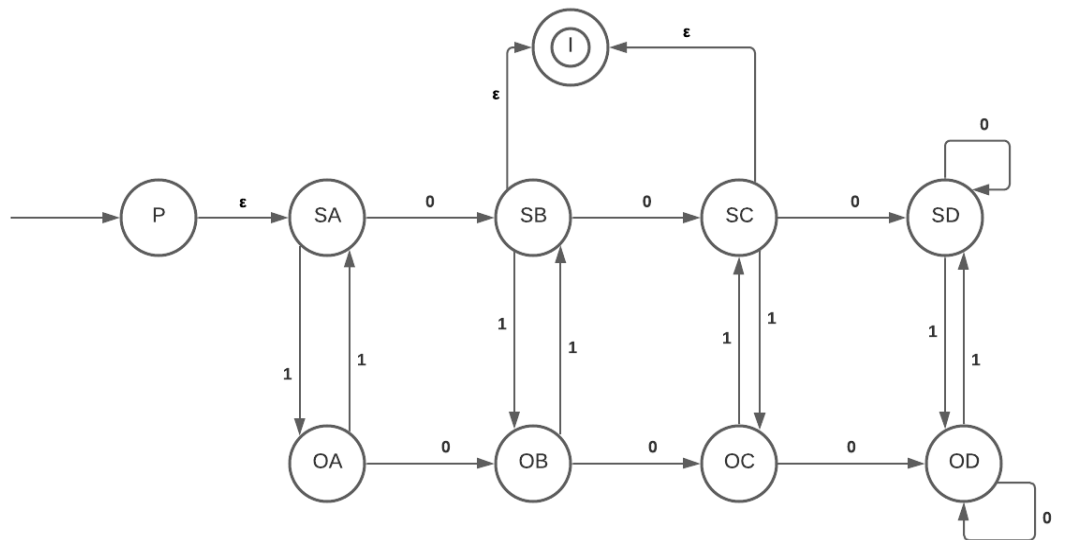
Regex: $(aa \mid b(baab)^*bb \mid b(baab)^*((baaa|a)a)) (ba|a(baab)^*bb \mid a(baab)^*((baaa|a)a))^*$

Question 3

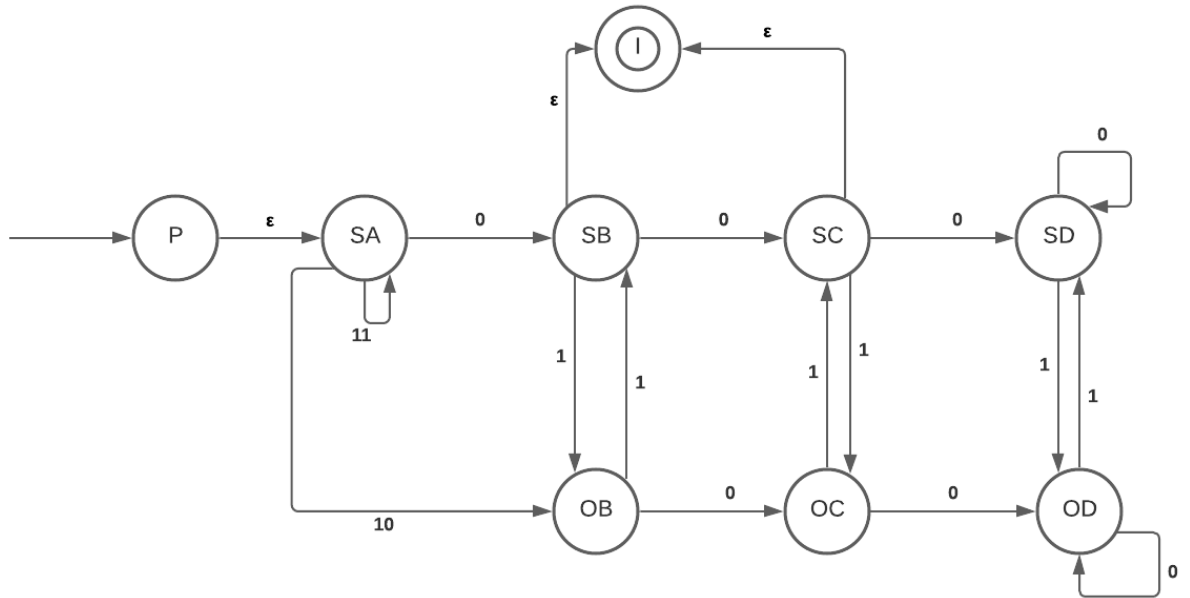
3.



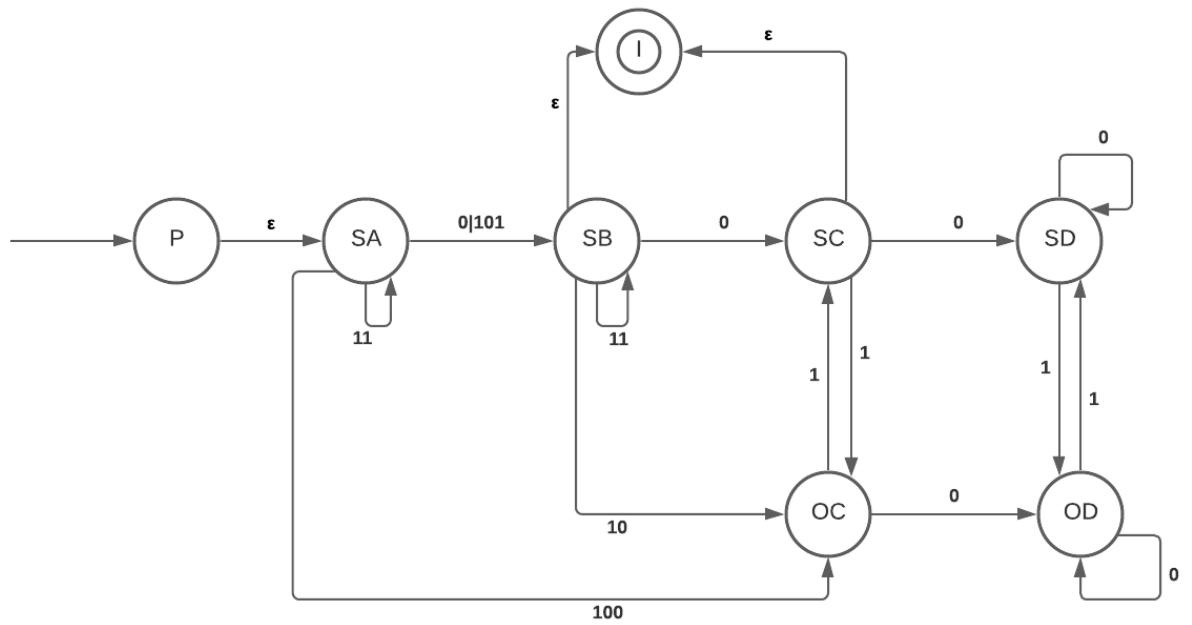
Step 1



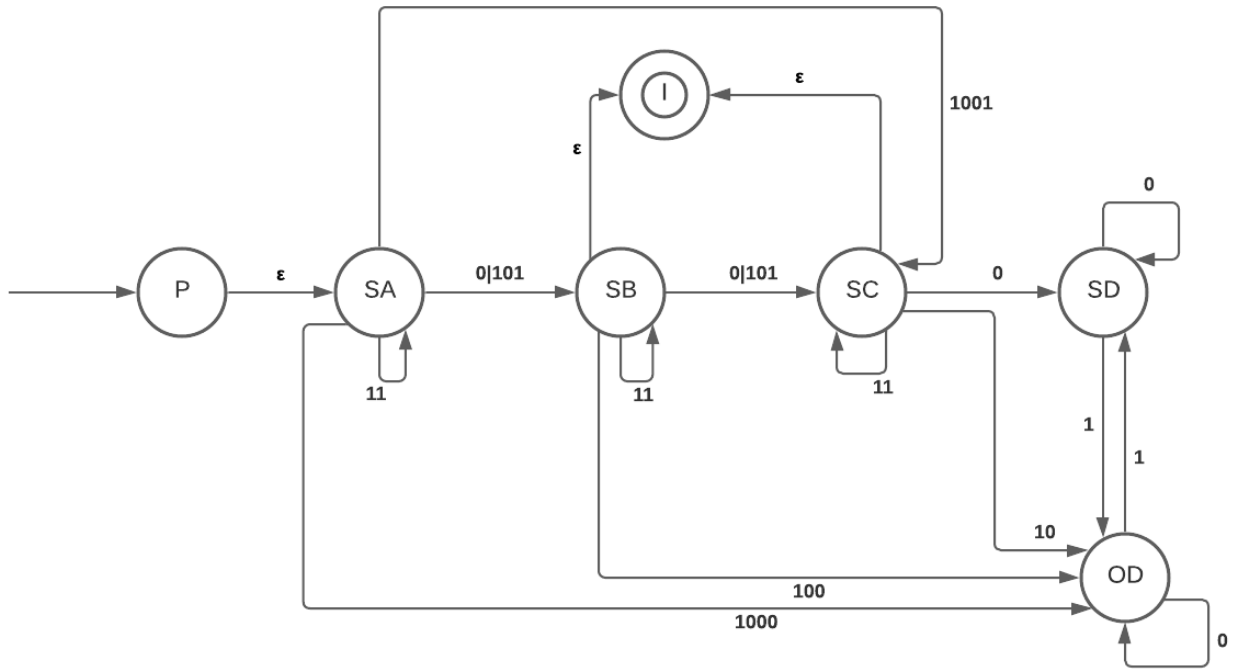
Step 2



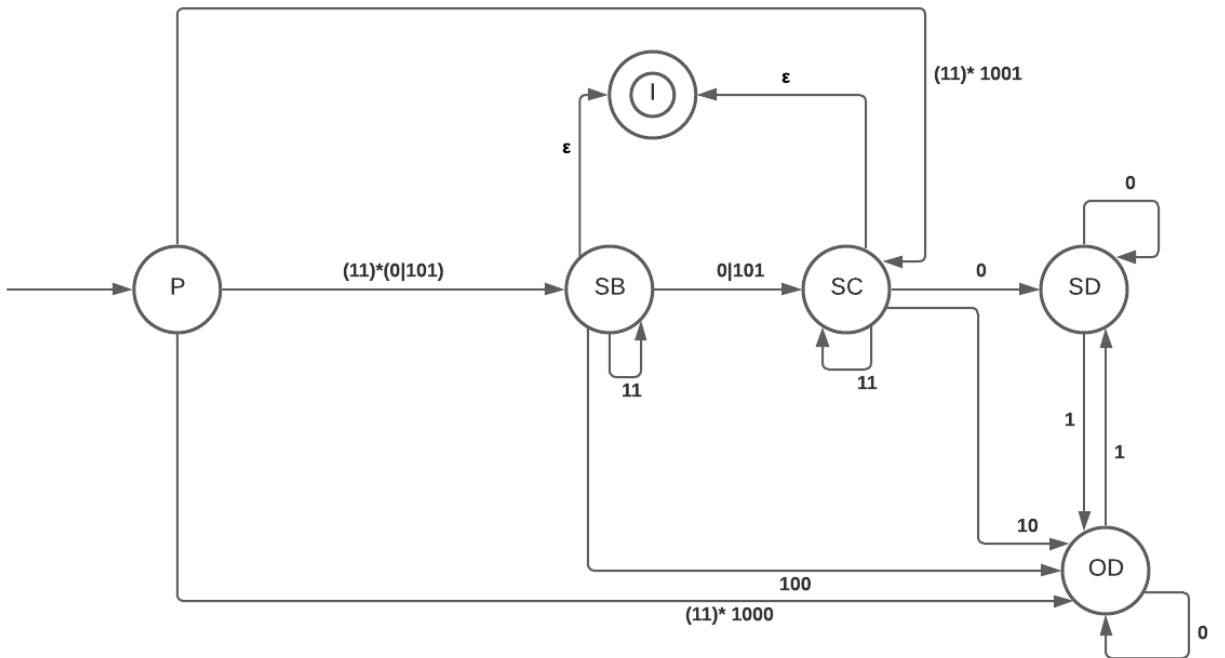
Step 3



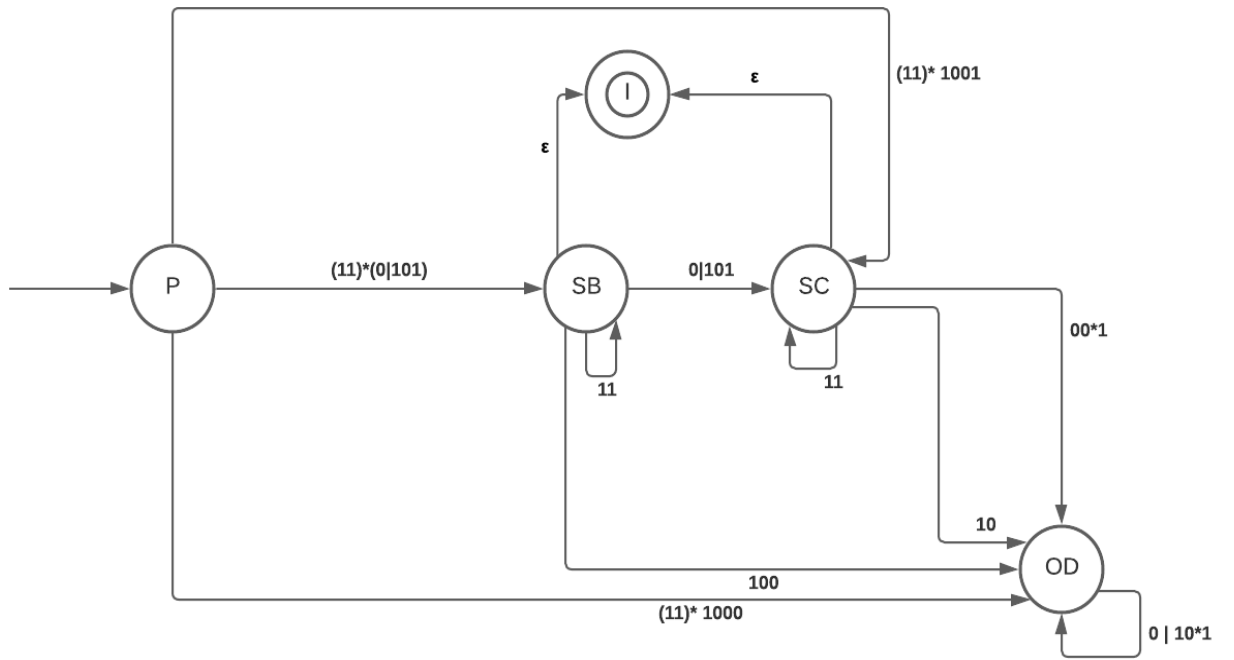
Step 4



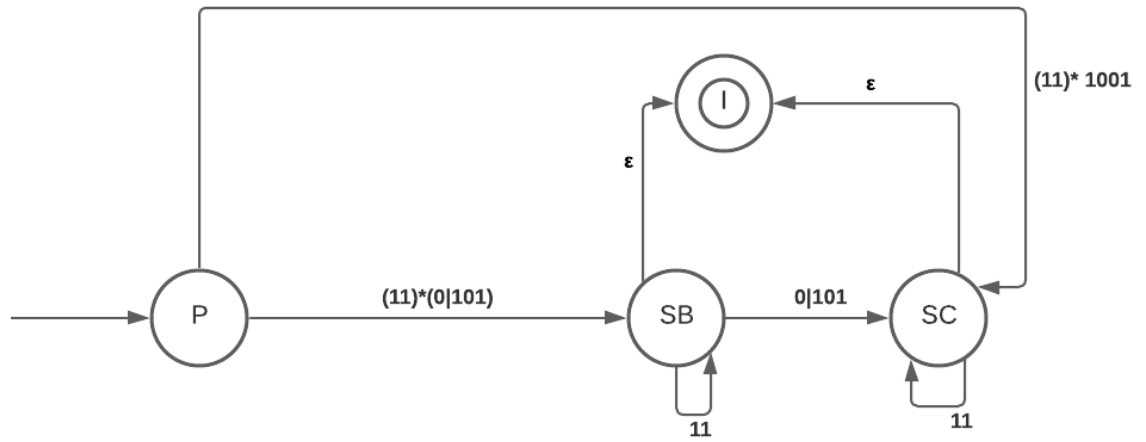
Step 5



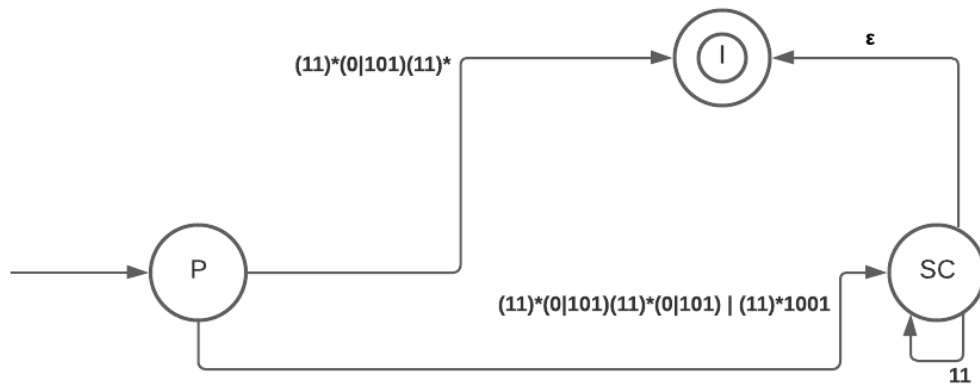
Step 6



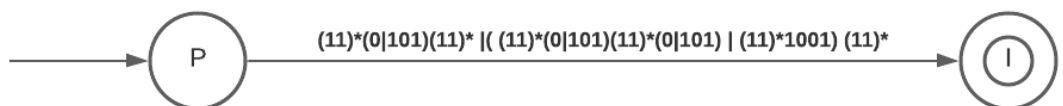
Step 7



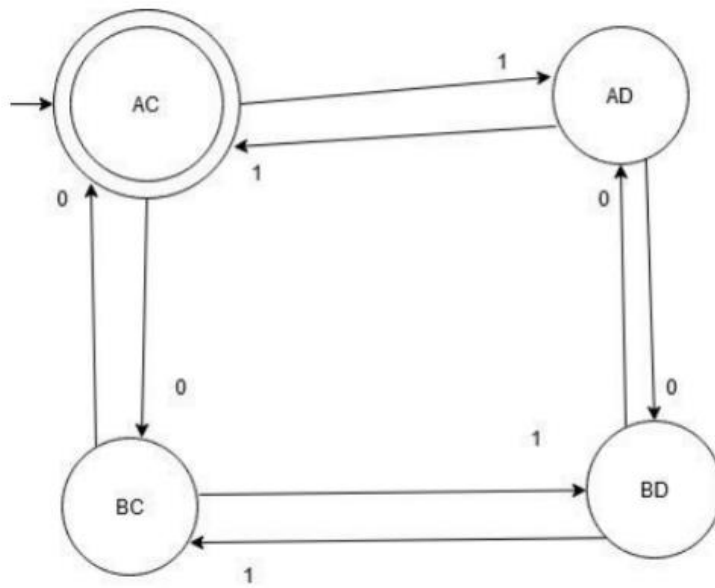
Step 8



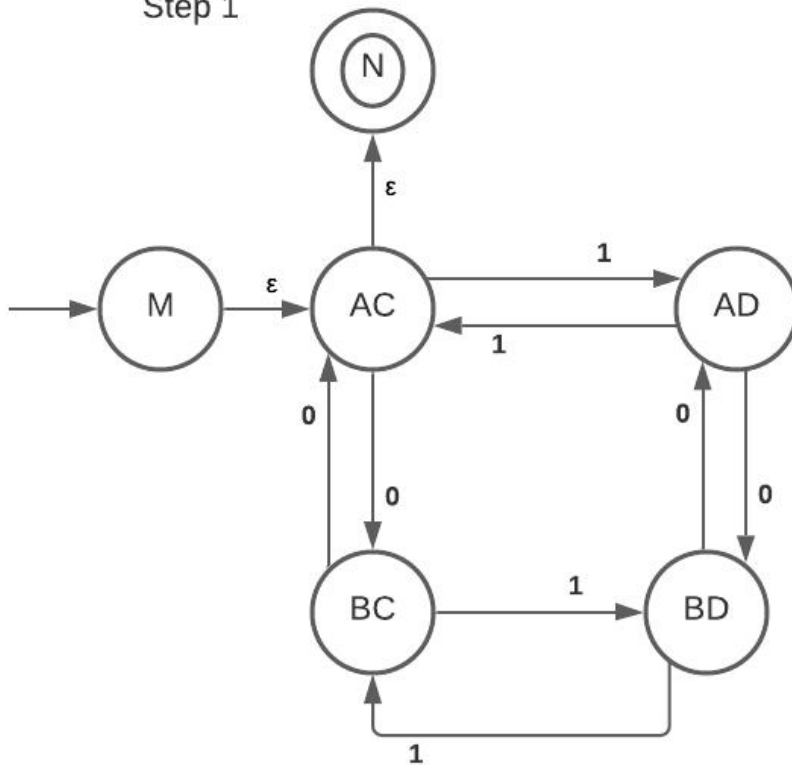
Step 9



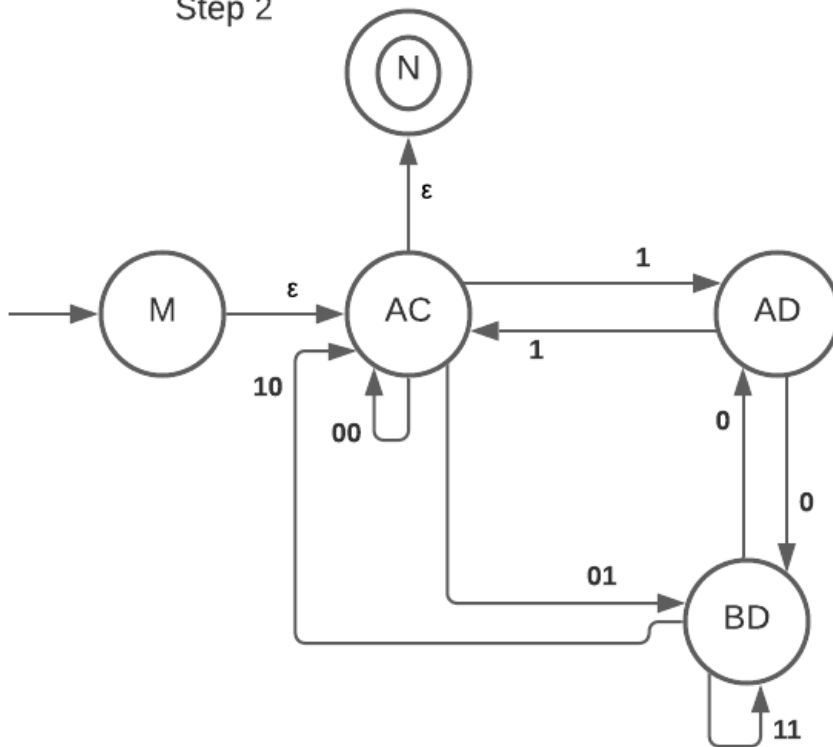
Question 4



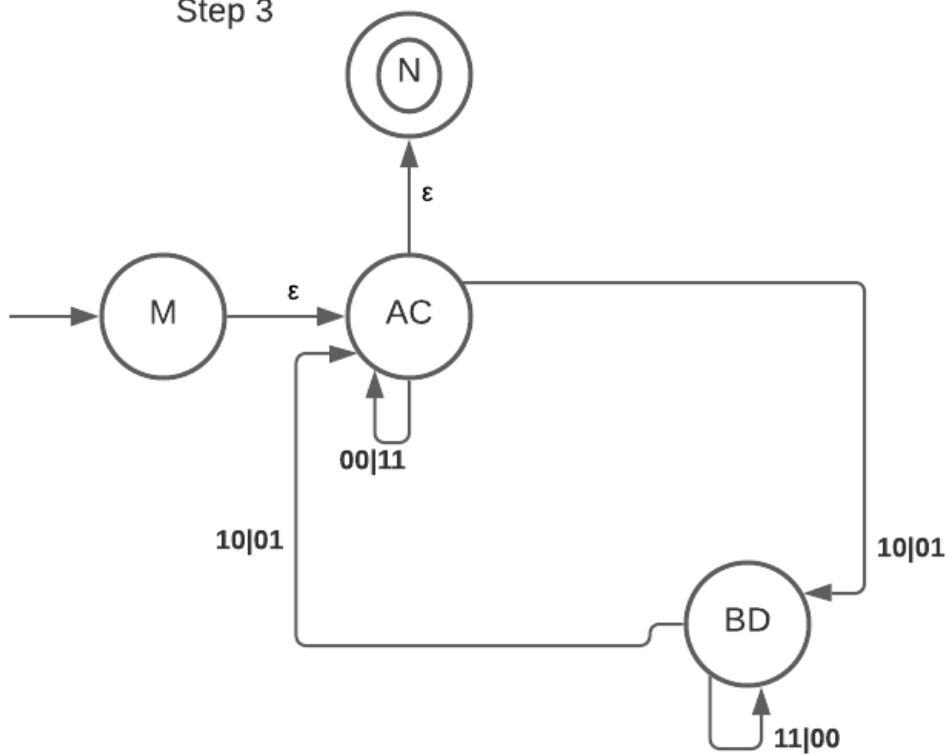
Step 1



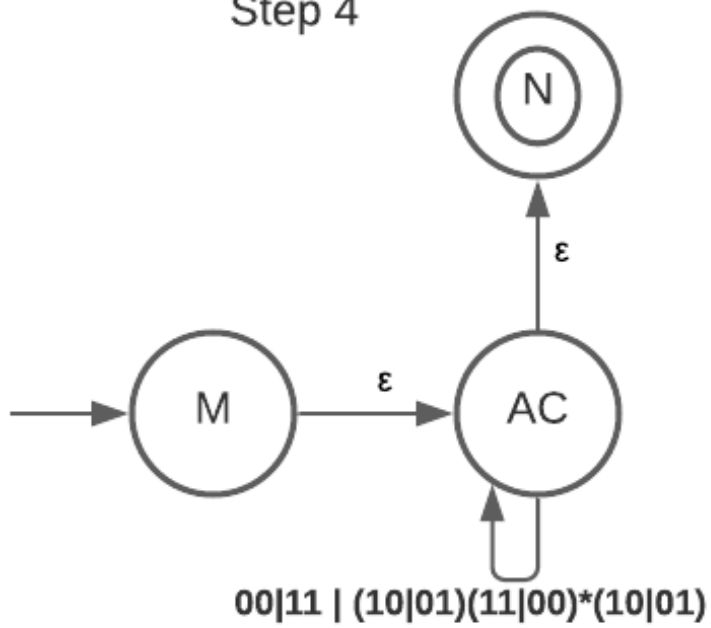
Step 2



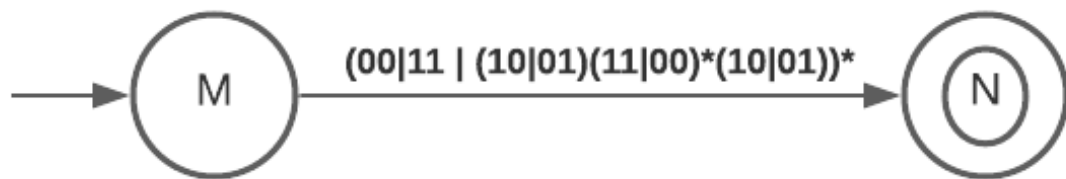
Step 3



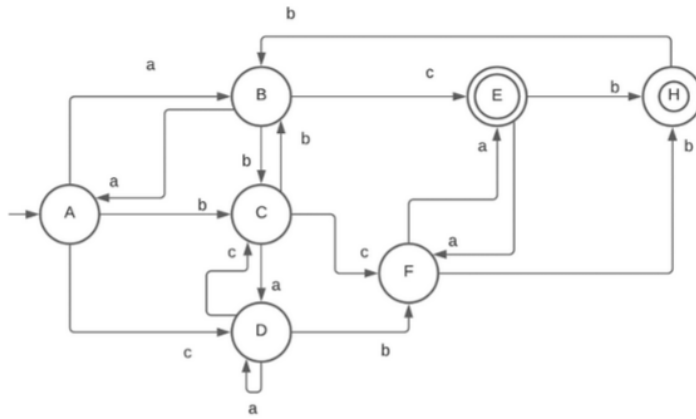
Step 4



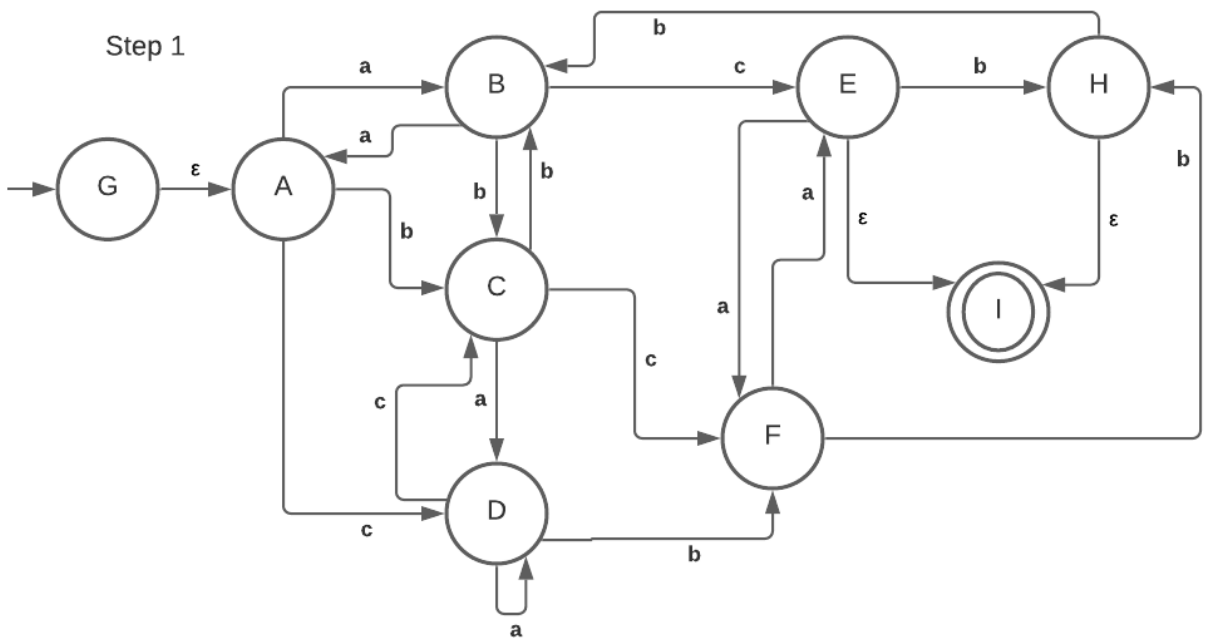
Step 5

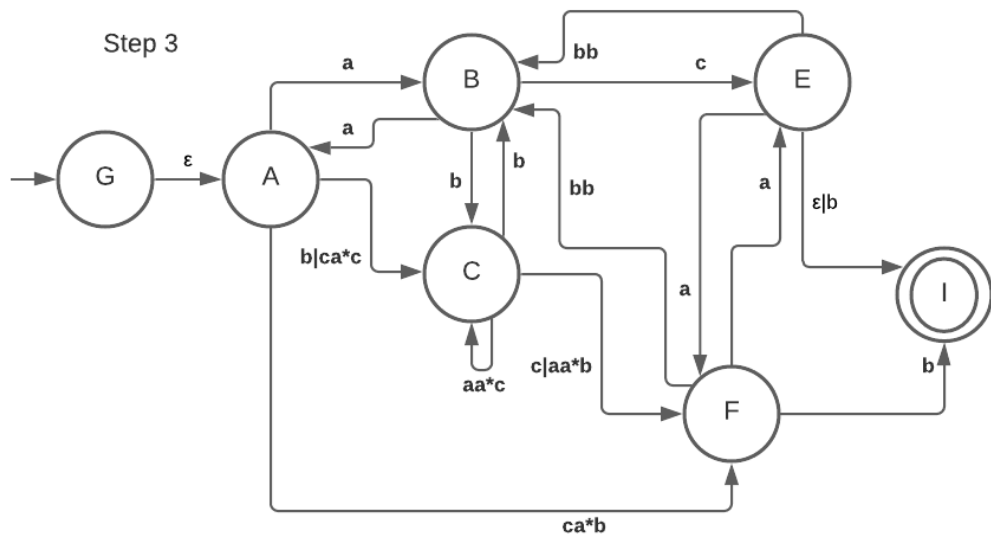
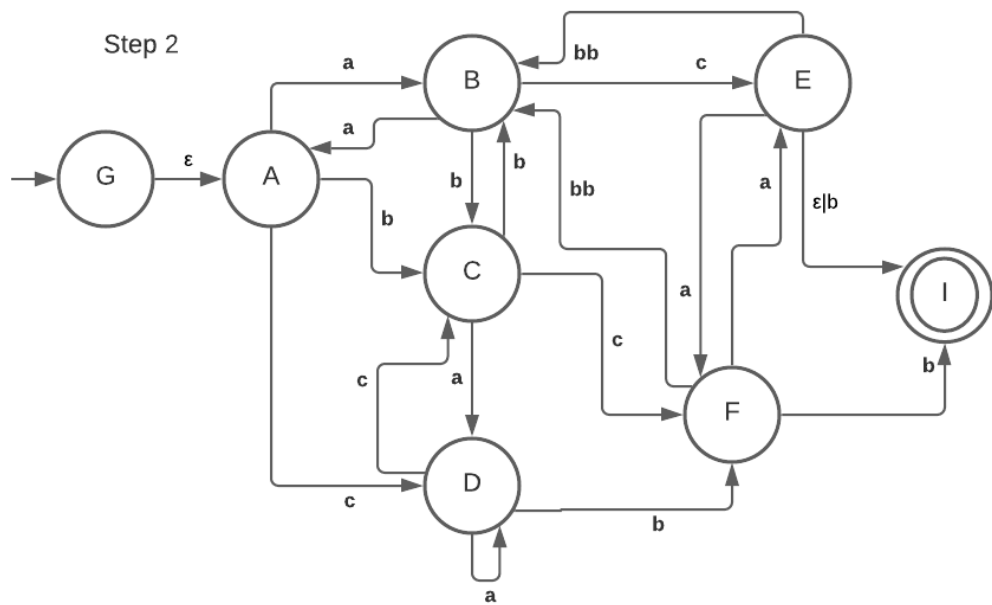


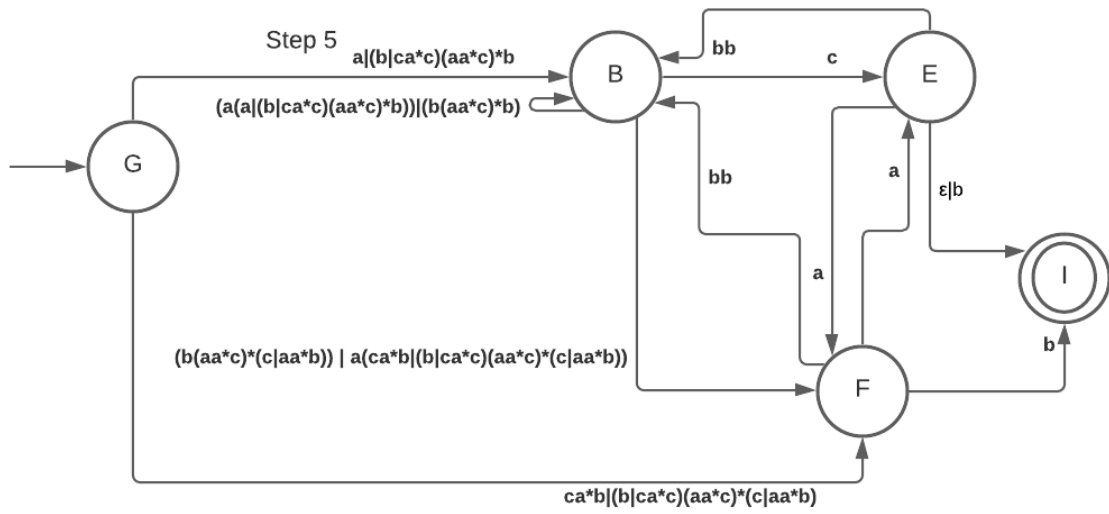
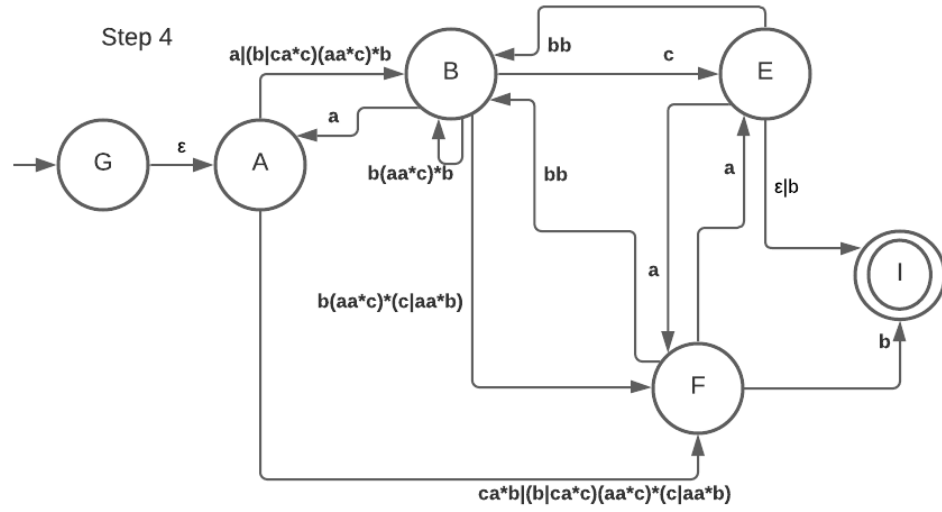
Question 5

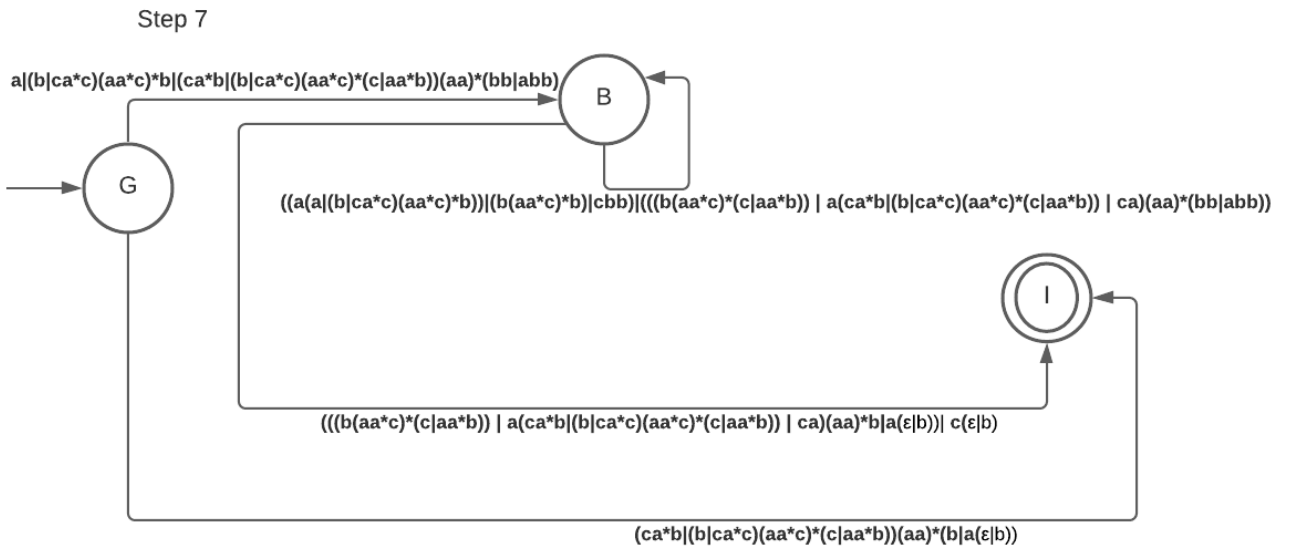
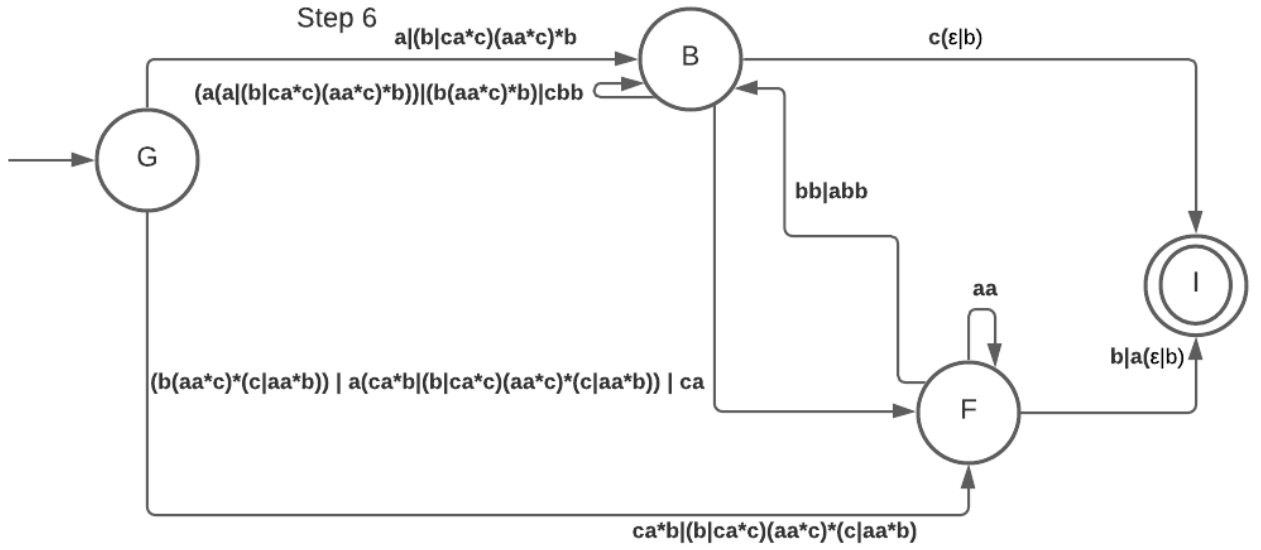


Step 1

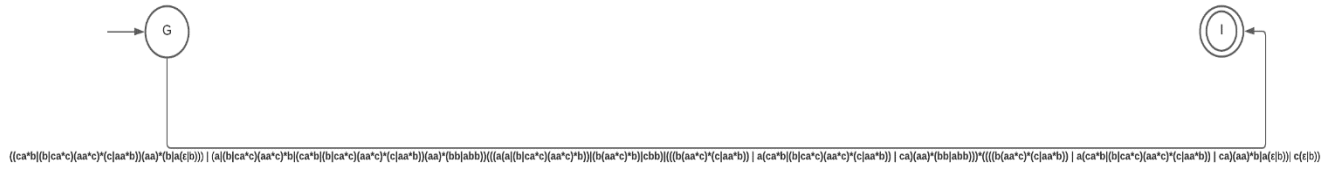






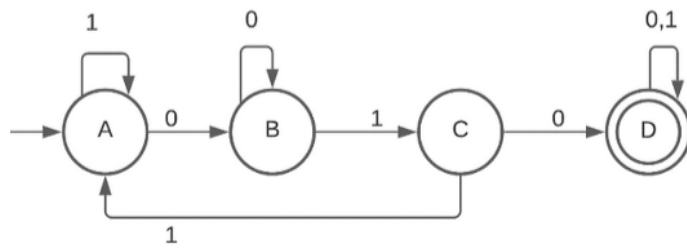


Step 8

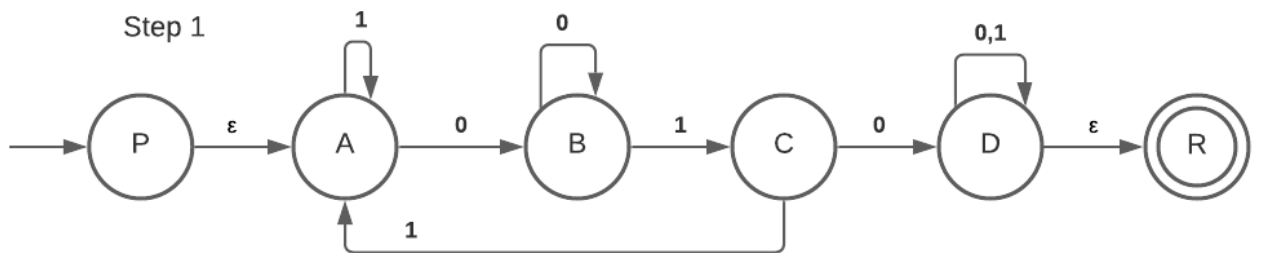


Regex: $((ca^*b|(b|ca^*c)(aa^*c)^*(c|aa^*b))(aa)^*(b|a(\epsilon|b))) |$
 $(a|(b|ca^*c)(aa^*c)^*b|(ca^*b|(b|ca^*c)(aa^*c)^*(c|aa^*b))(aa)^*(bb|abb))(((a(a|(b|ca^*c)(aa^*c)^*b)|$
 $(b(aa^*c)^*b)|cbb)|(((b(aa^*c)^*(c|aa^*b)) | a(ca^*b|(b|ca^*c)(aa^*c)^*(c|aa^*b)) |$
 $ca)(aa)^*(bb|abb)))^(((b(aa^*c)^*(c|aa^*b)) | a(ca^*b|(b|ca^*c)(aa^*c)^*(c|aa^*b)) |$
 $ca)(aa)^*b|a(\epsilon|b)) | c(\epsilon|b))$

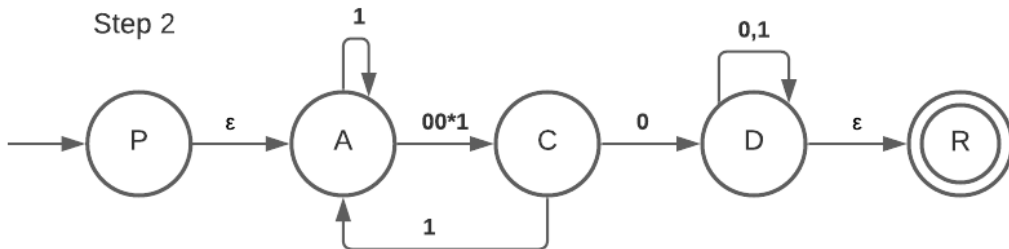
Question 6



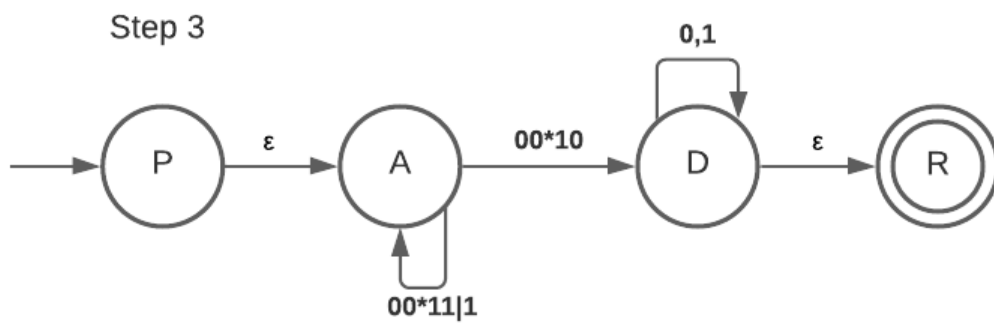
Step 1



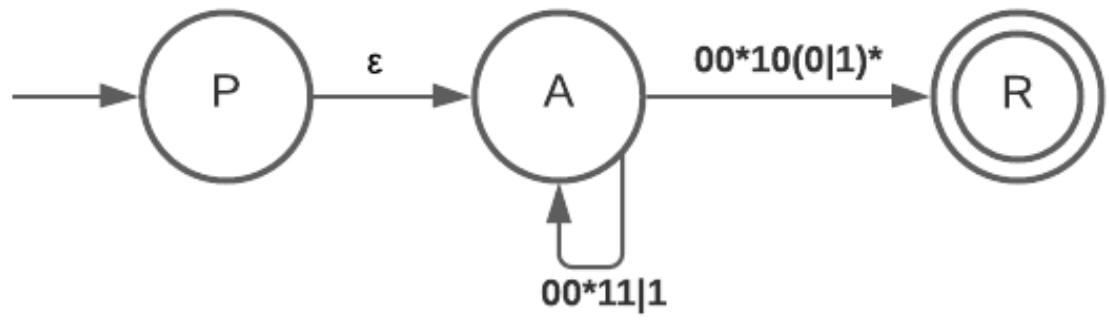
Step 2



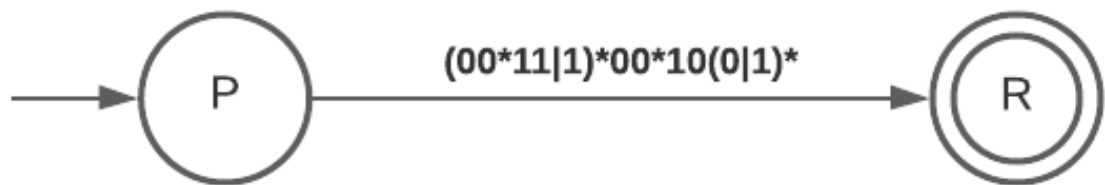
Step 3



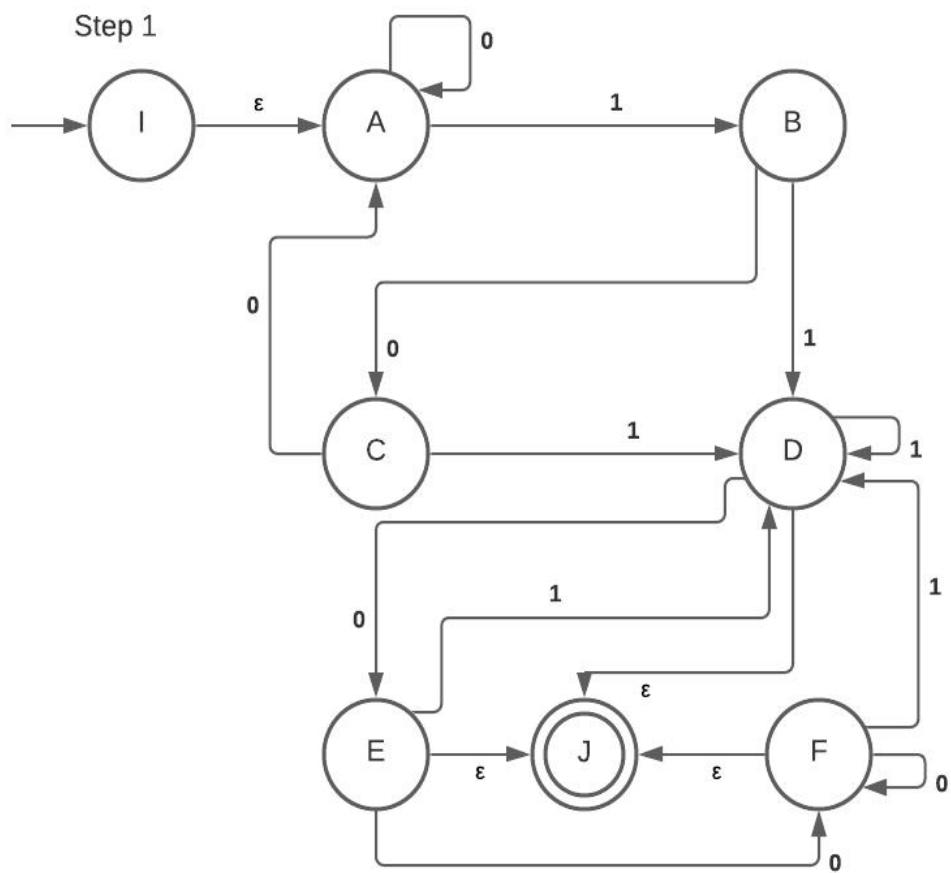
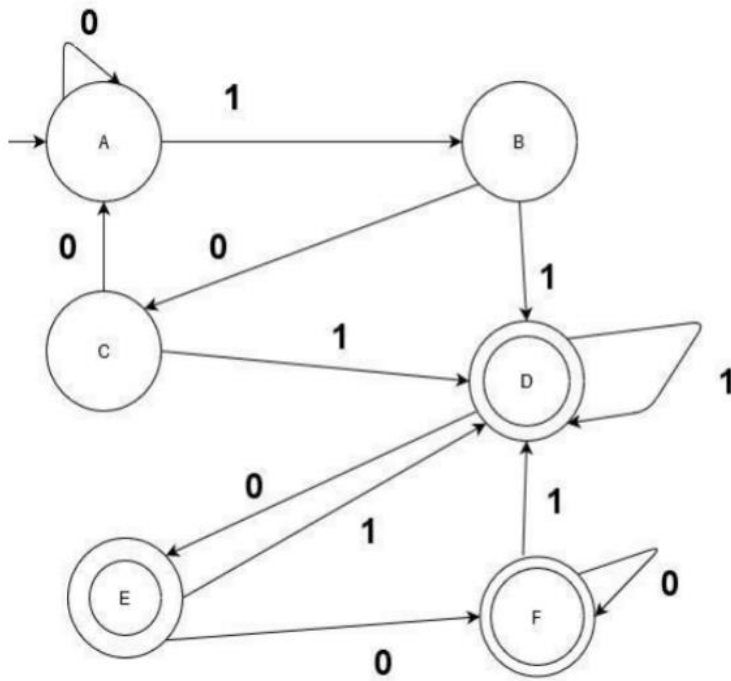
Step 4

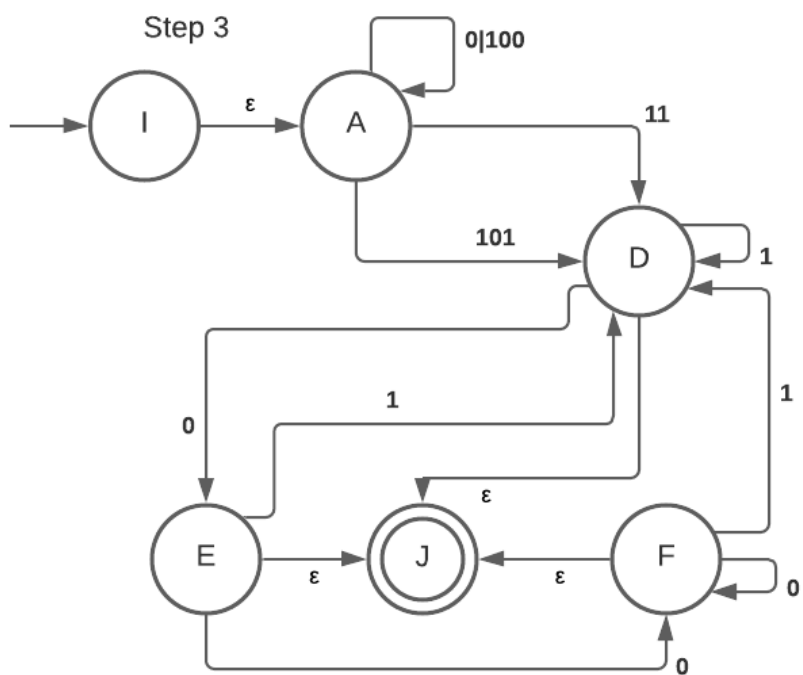
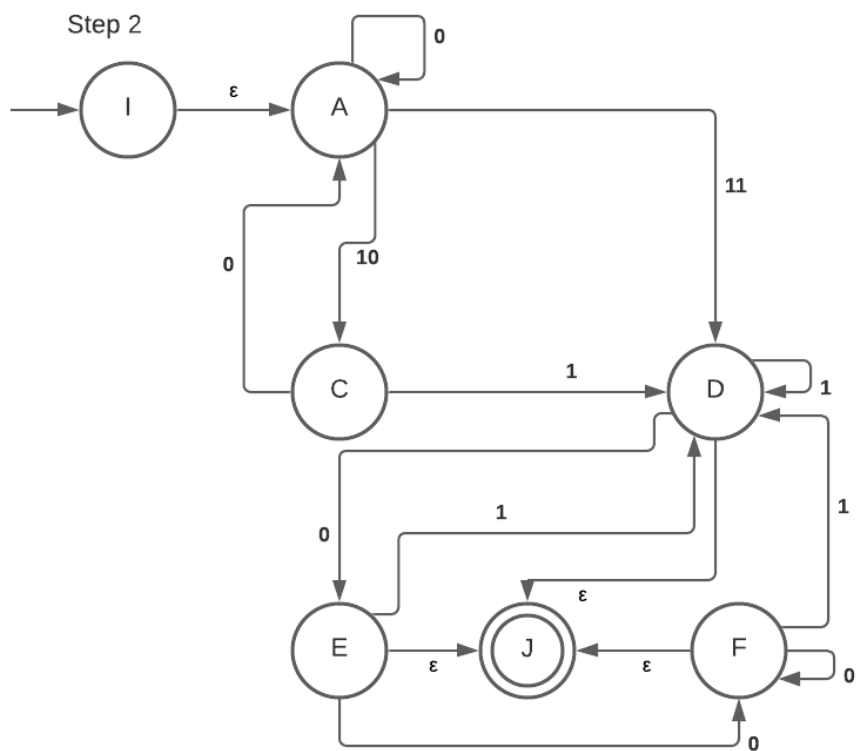


Step 5

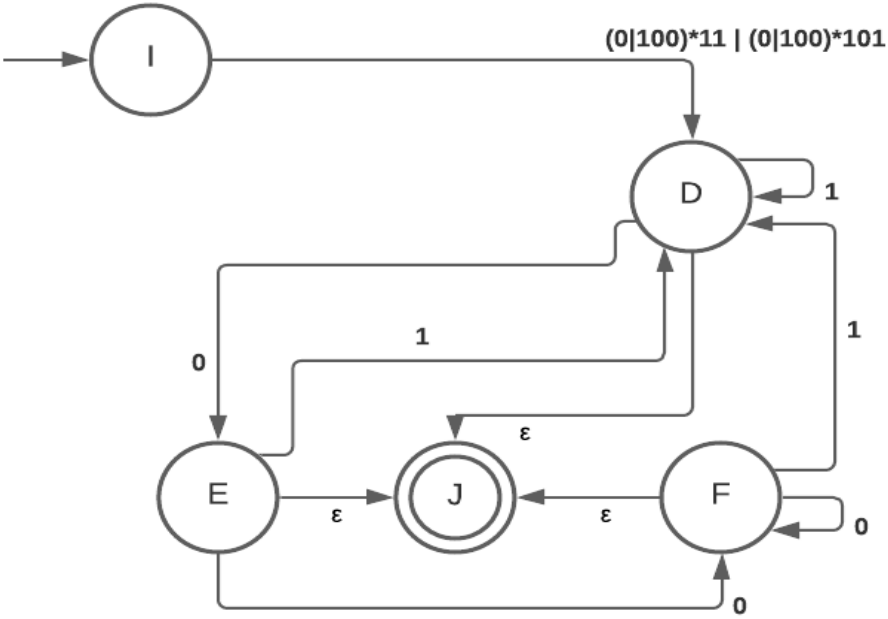


Question 7

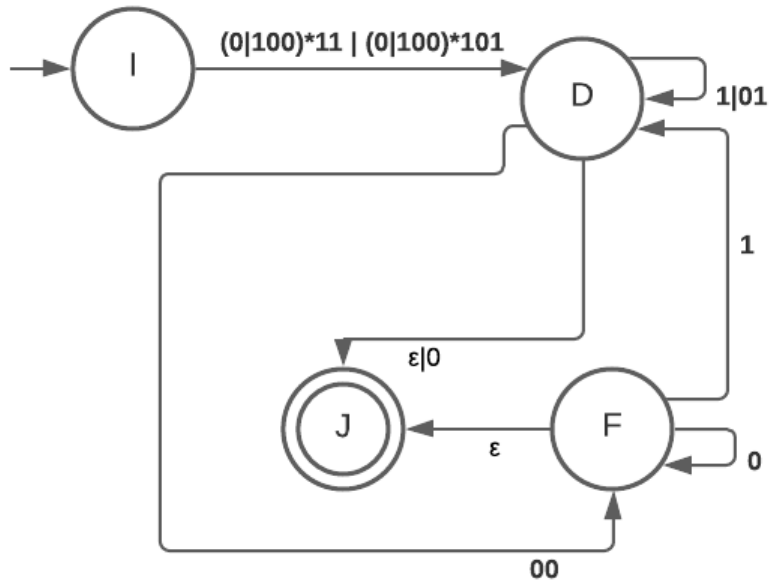




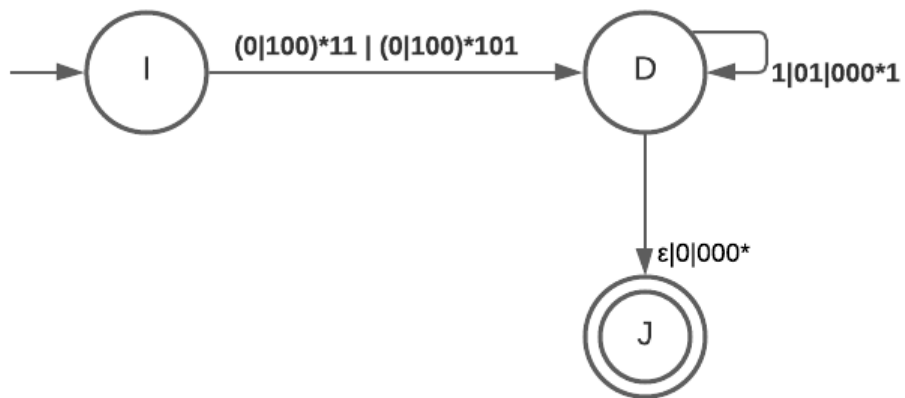
Step 4



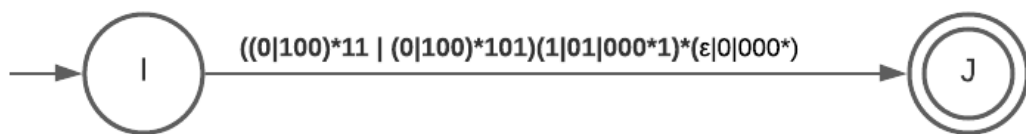
Step 5



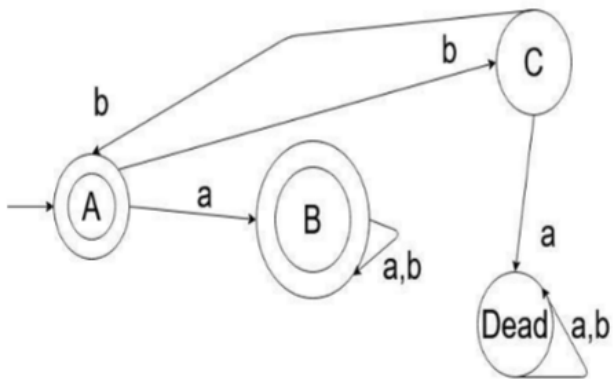
Step 6



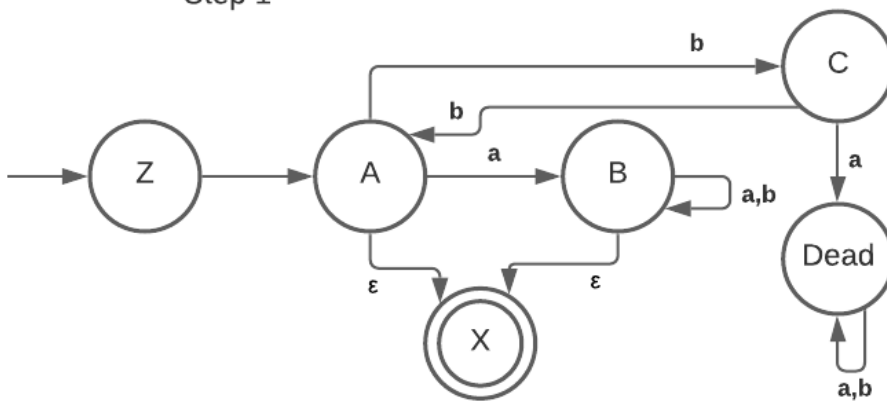
Step 7



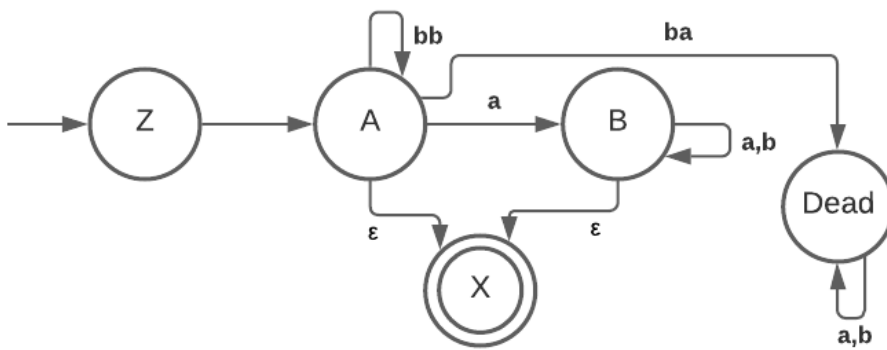
Question 8



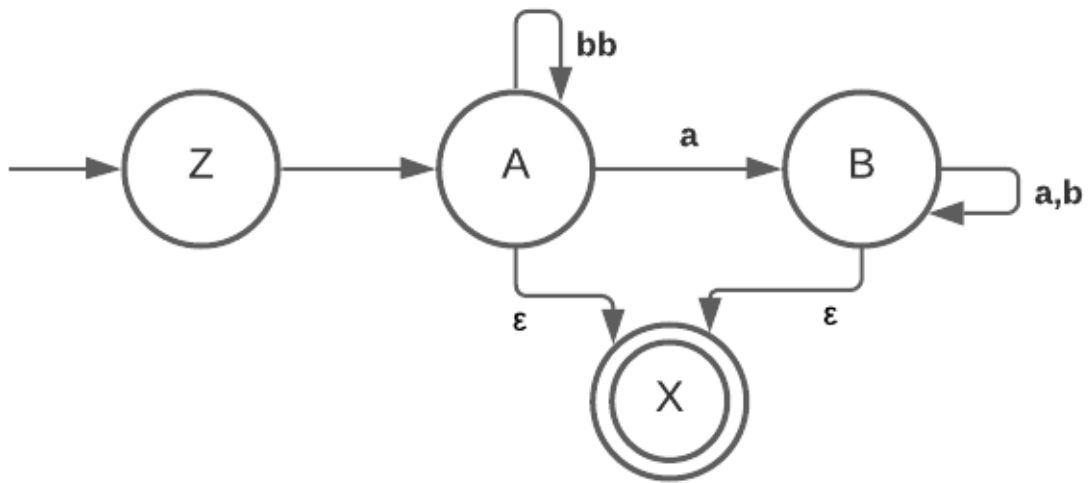
Step 1



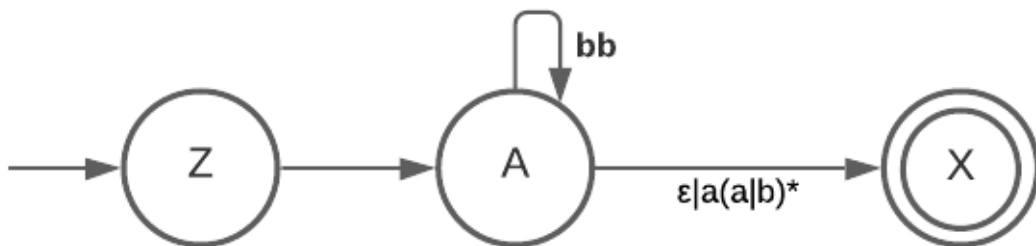
Step 2



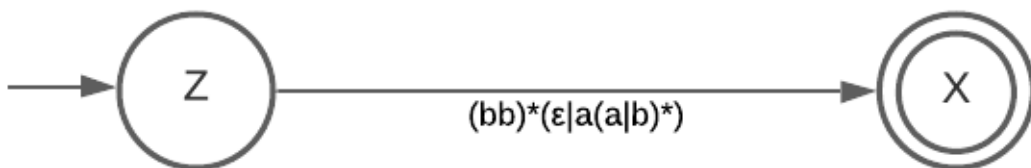
Step 3



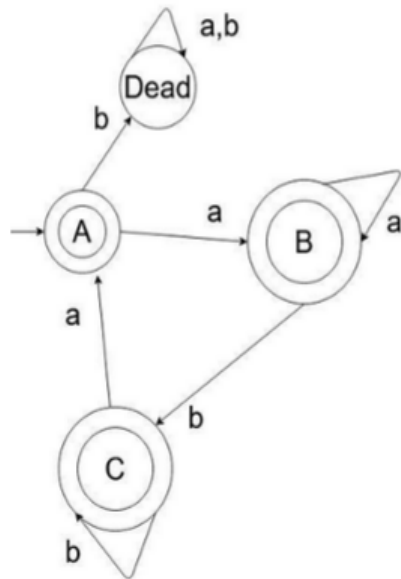
Step 4



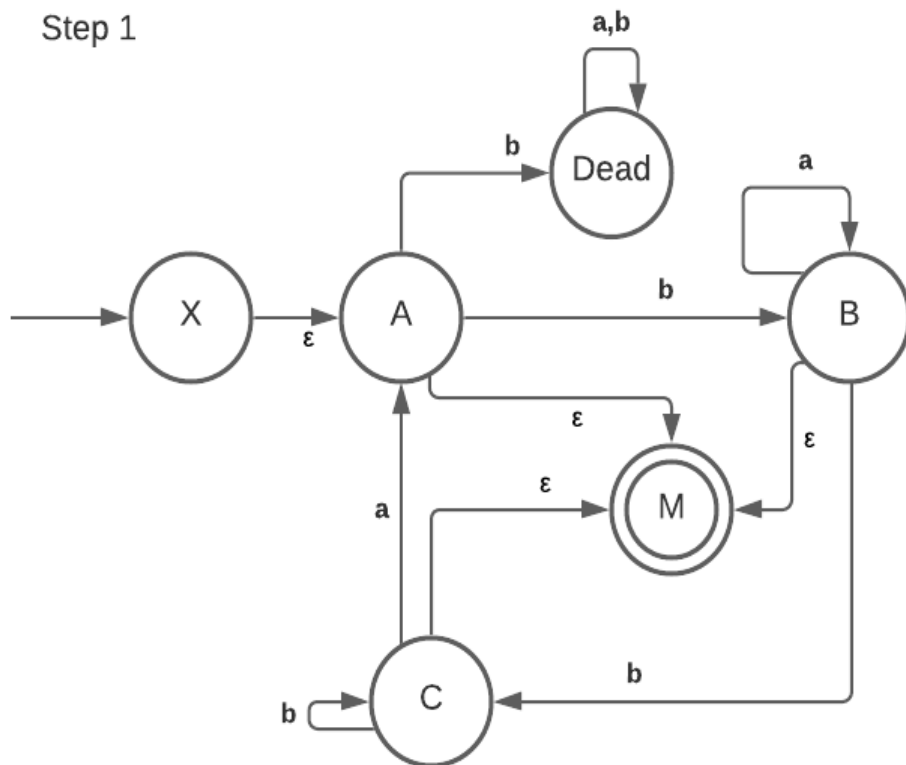
Step 5



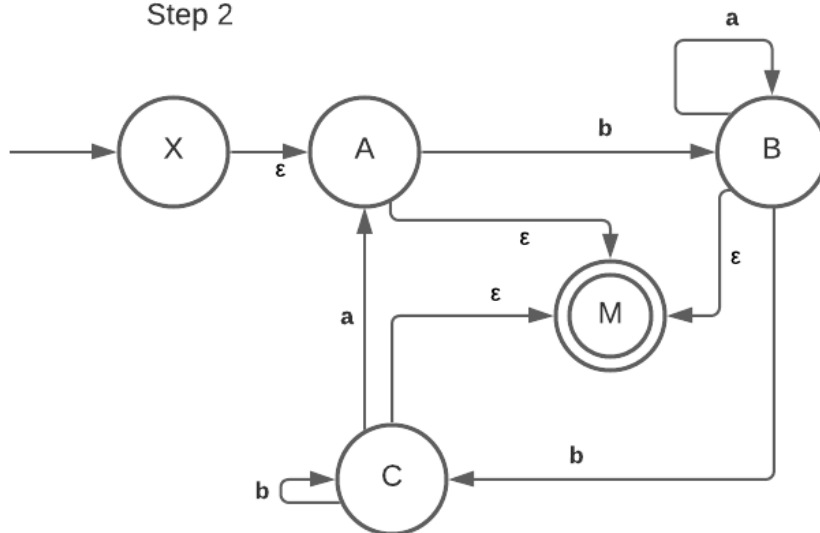
Question 9



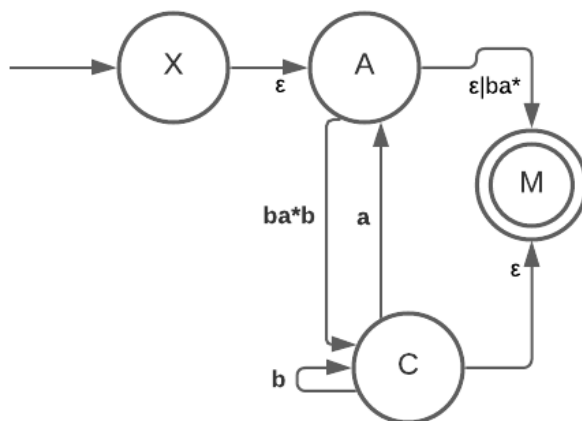
Step 1



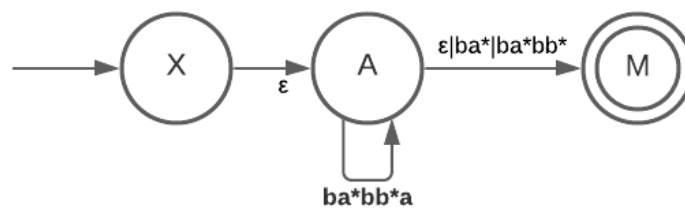
Step 2



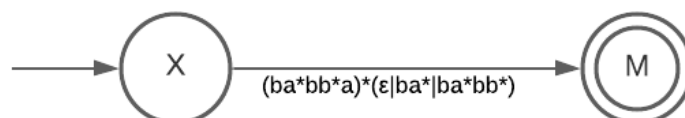
Step 3



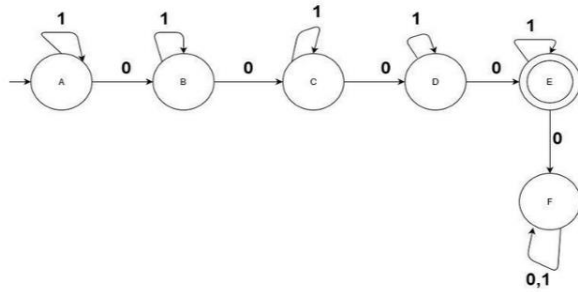
Step 4



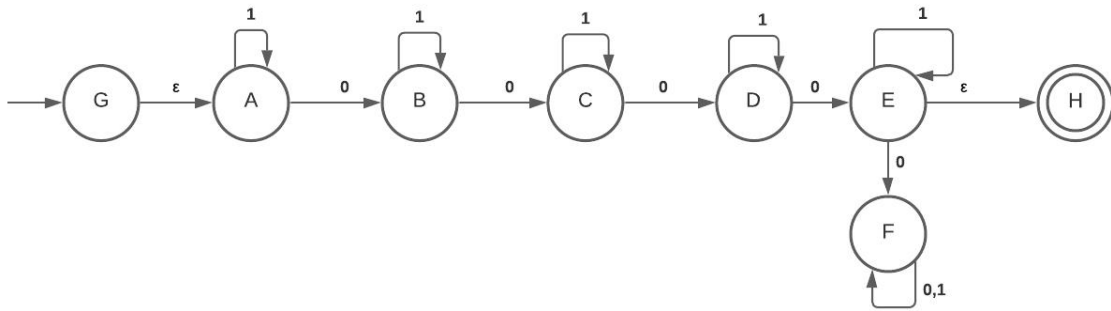
Step 5



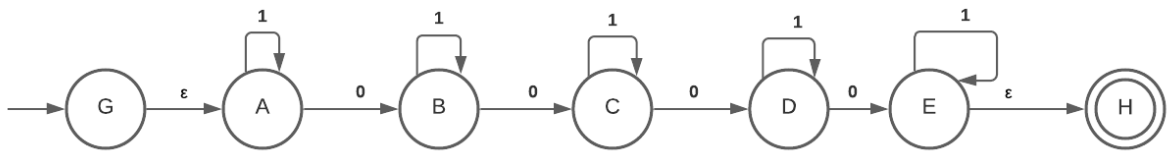
Question 10



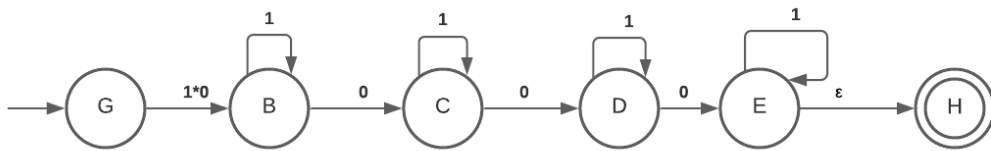
Step 1



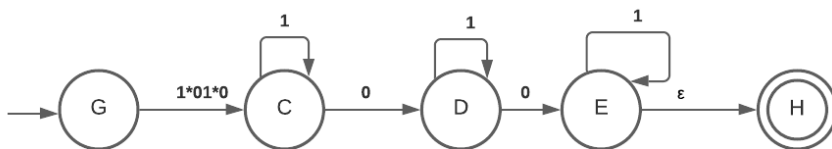
Step 2



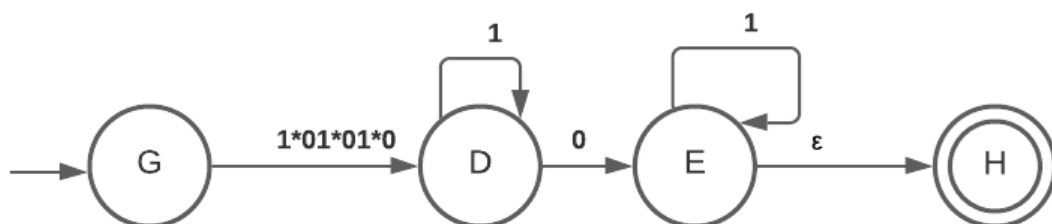
Step 3



Step 4



Step 5



Step 6



Step 7

