

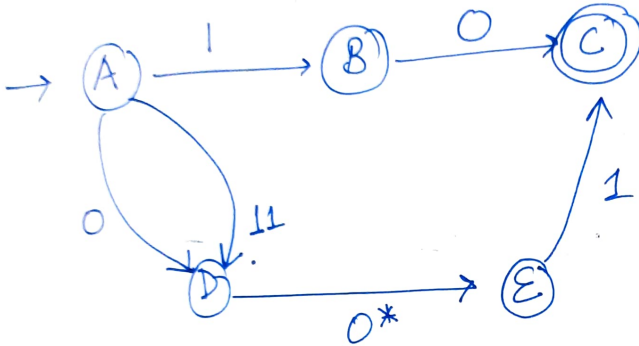
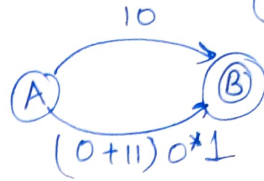
It Represents a

F-A

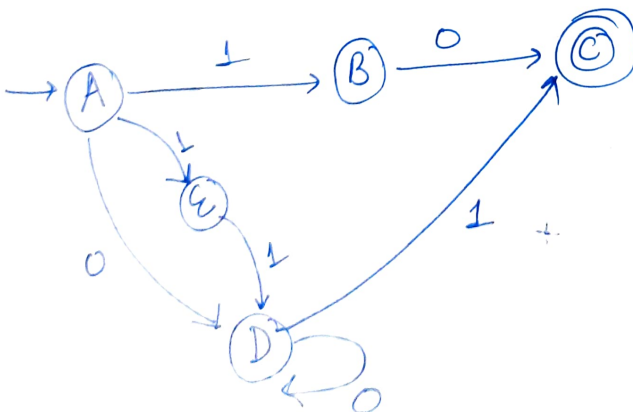
(99)

(4)

$$4) 10 + (0+11)0^*1 \Rightarrow$$



$\Downarrow$

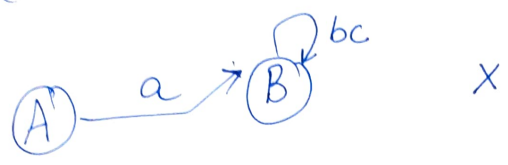


$\Leftarrow$  NFA

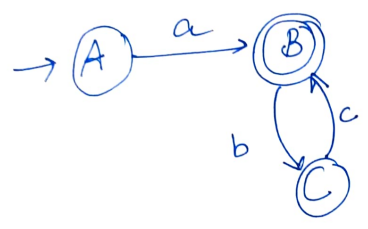
①

③

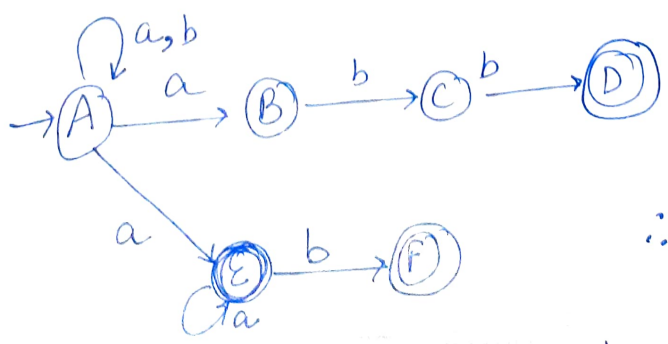
Pr  
- 3)  $a.(bc)^*$



$\rightarrow a, ab\underline{c}, abcb\underline{c}, abcbcb\underline{c} \dots$



④  $(a|b)^* (abb|a^*b)$   
 $(a+b)^* (abb + a^*b) = abb + b$

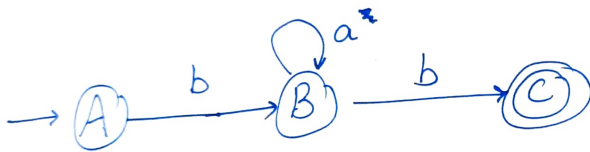


NFA  
 $\therefore$  Convert to DFA.

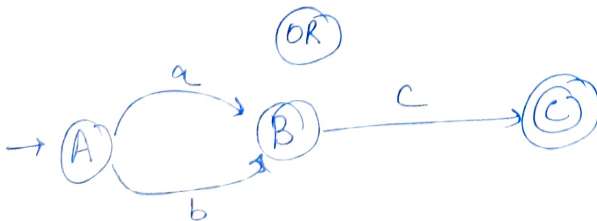
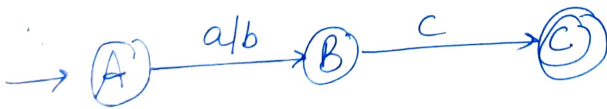
Ques: Convert the following RE to their equivalent FA:

Ans: i)  $b a^* b$  ↗ closure (self loop)

Ans:  $bb, bab, baab, baaab, ba \dots b$



2)  $(a + b) \cdot c$

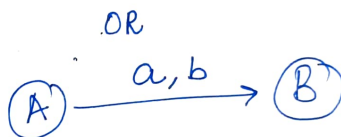
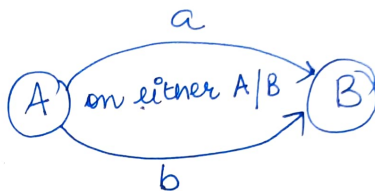


①

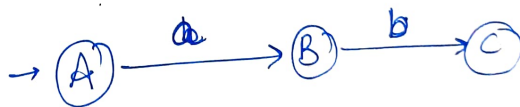
RE  $\Rightarrow$  DFA :-

• RULES :

1)  $a + b$   
(2 states)



2)  $a \cdot b$   
(3 states)



3)  $a^*$



RRP  
(4 + RRP) P  
= 9 + 9P + 9P<sup>2</sup>