

By :-

Ameel Hamza

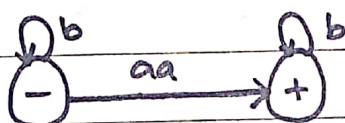
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Subject:-

Automata Theory

Question # 1:-

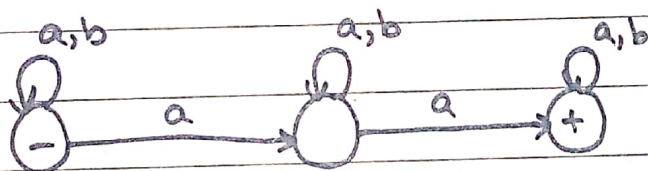
1) i) $b^*aa b^*$



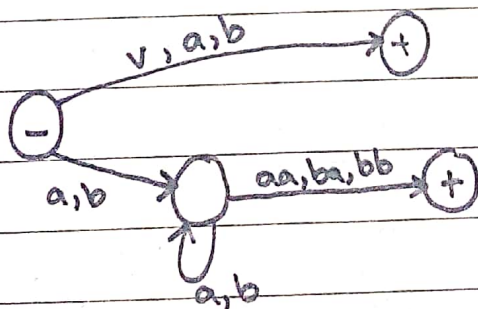
ii) $b^*a b^*a b^*$



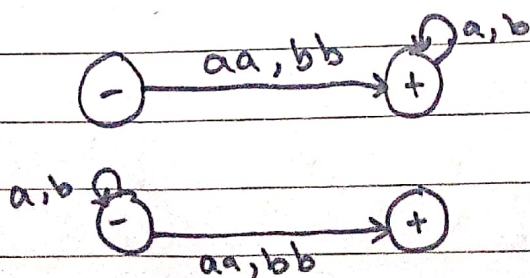
2) $(a+b)^* a (a+b)^* a (a+b)^*$



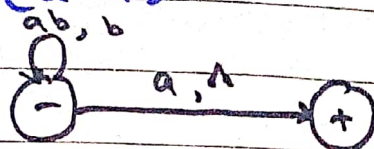
3) $1 + a + b + (a+b)^* (aa + ba + bb)$



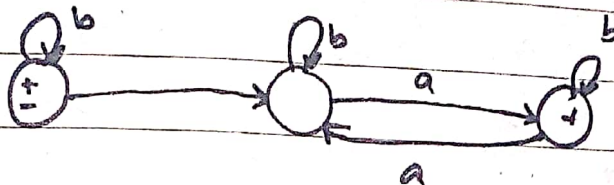
4) $(aa + bb)(a+b)^* + (a+b)^* (aa + bb)$



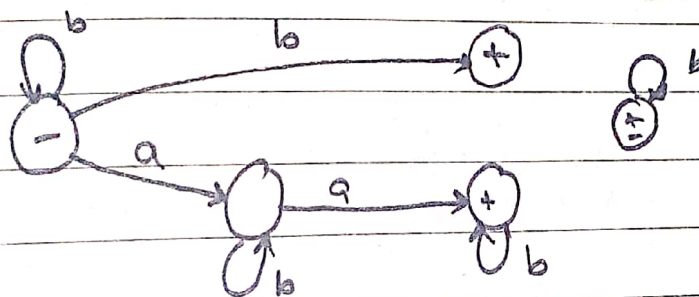
5) $(ab + b)^* (a + \Lambda)$



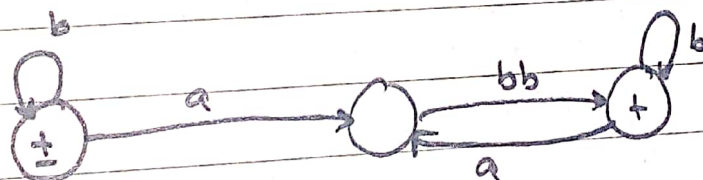
6) $(aa + b + ab^*a)^*$



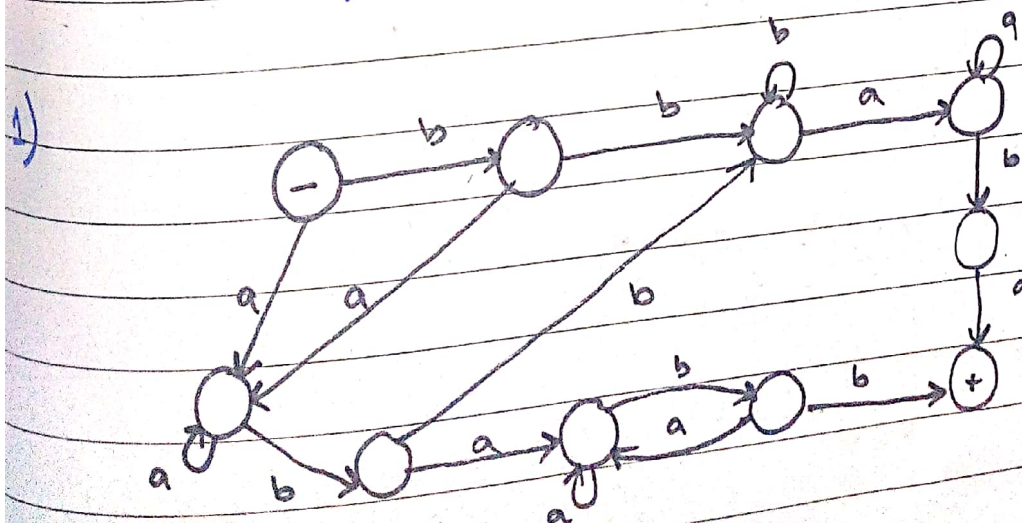
7) $(b + (ab + b)^* (a + \Lambda))^* + b^* aab^*$



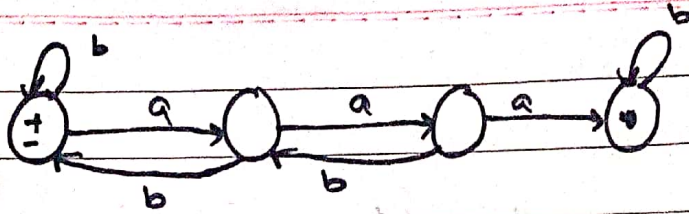
8) $(abb + b)^*$



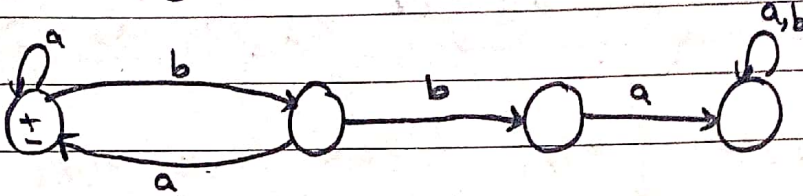
Question # 2:-
(FA)



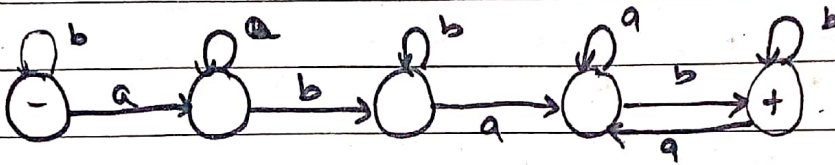
2)



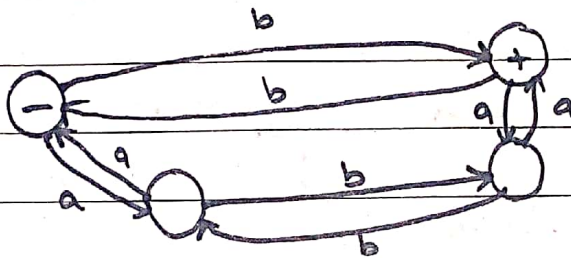
3)



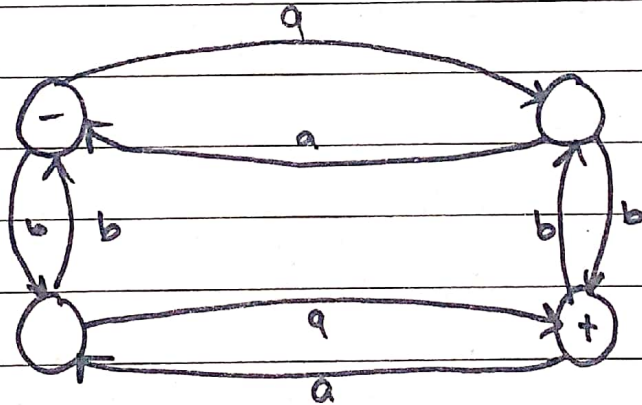
4)



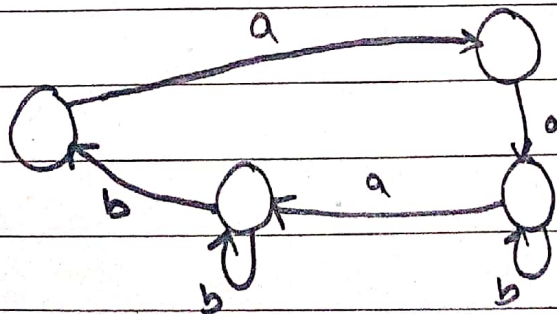
5)



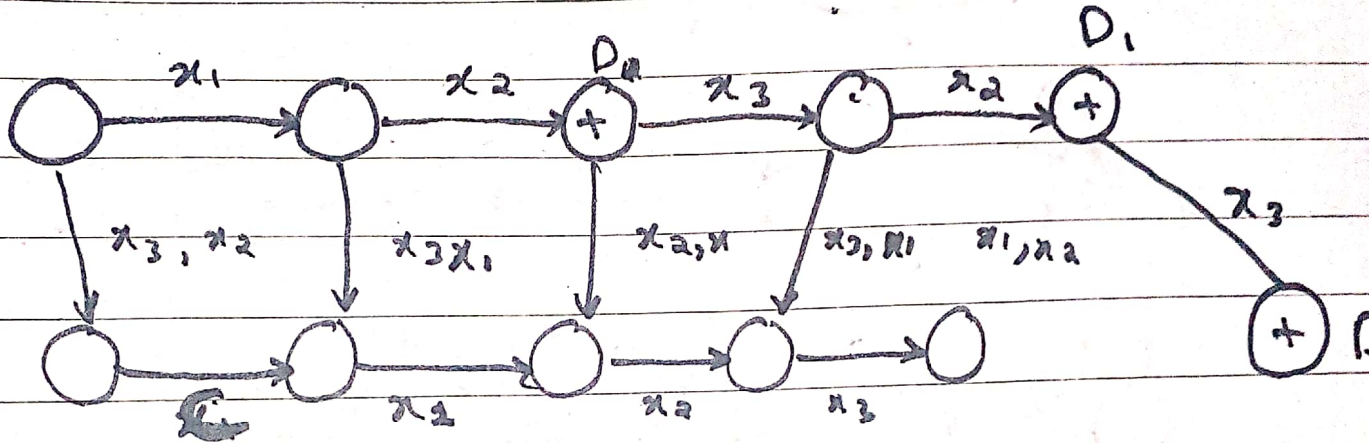
6)



7)



Question # 3:-



Question # 4:-

