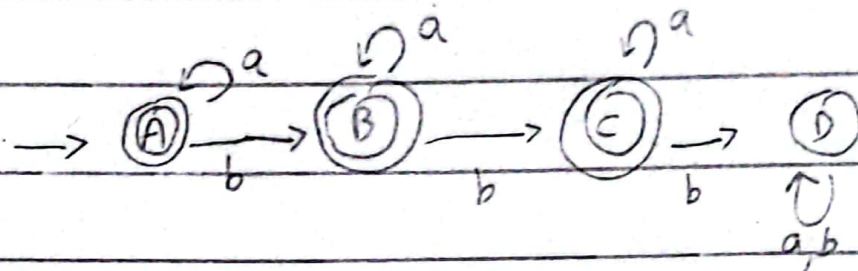
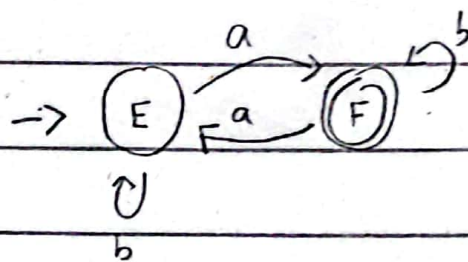


DFA for at most 2 b's and odd number of a's.

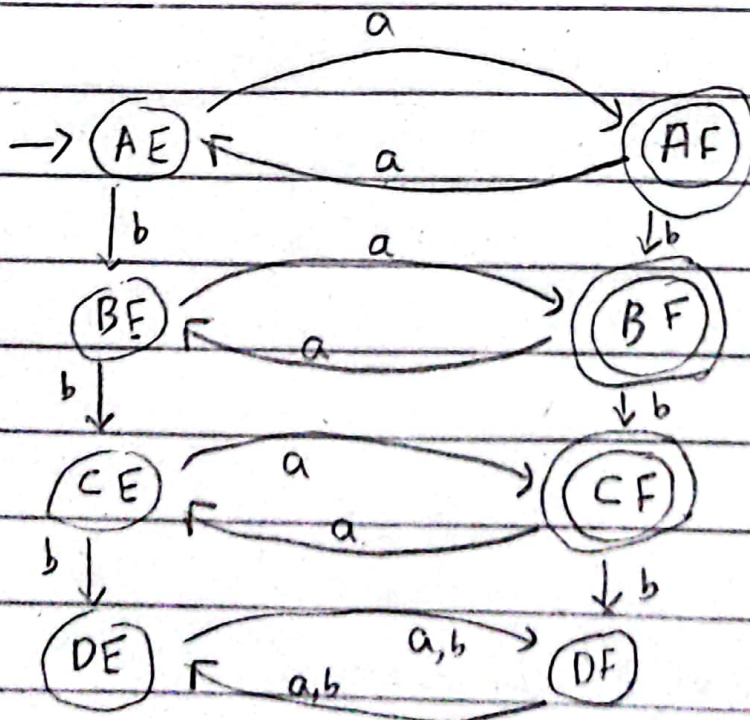
$L_1$  : At most 2 b's



$L_2$  : Odd Number of a's

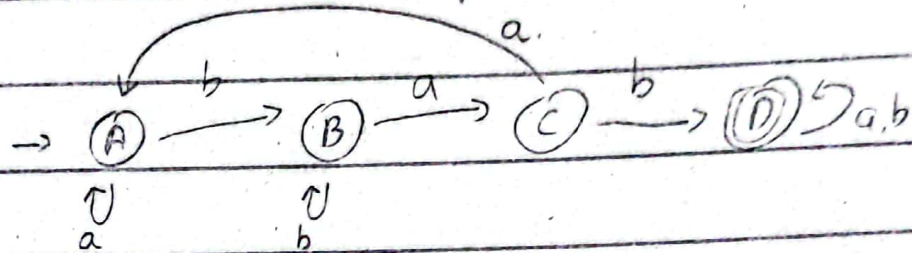


$L_1 \cap L_2$

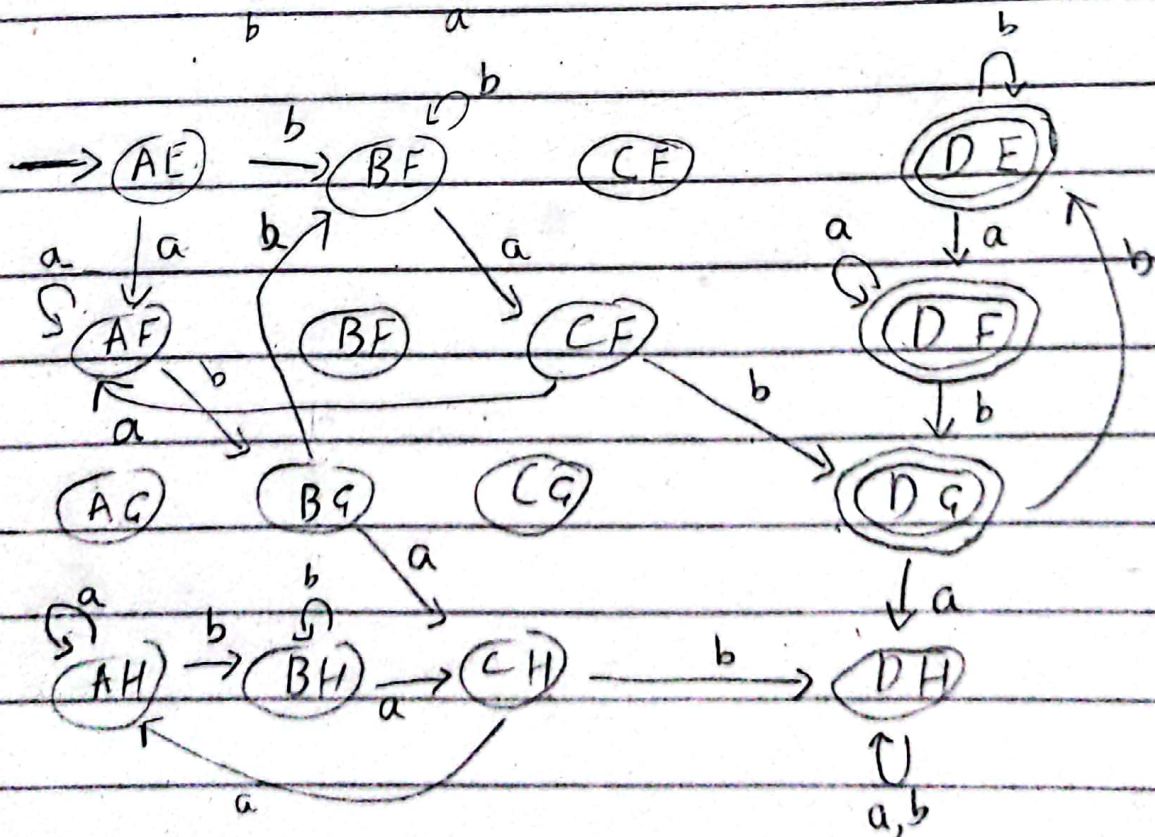
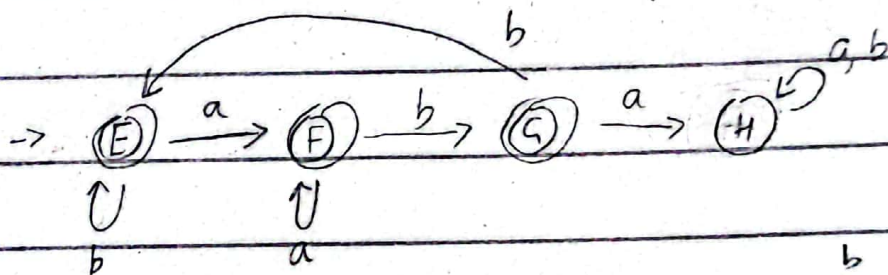


DFA for has 'bab' but not 'aba'

$L_1$  = Has bab substring



$L_2$  = NOT have aba substring.

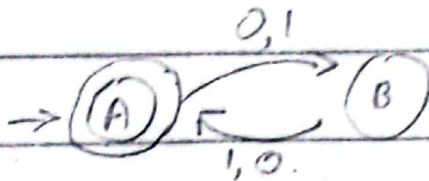


\* Unused states can be removed.

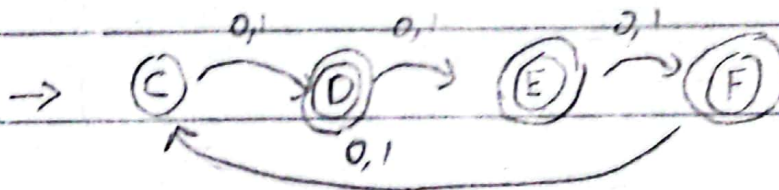


DFA for  $|x|$  divisible by 2 but not by 4.

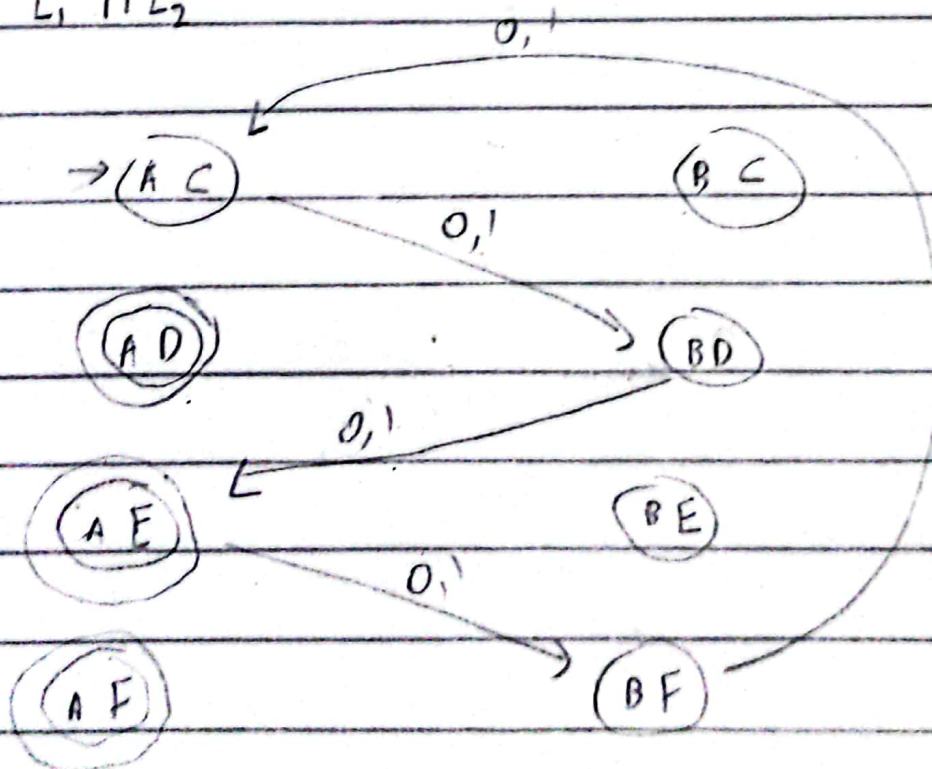
$L_1 = \text{Divisible by } 2$



$L_2 = \text{NOT divisible by } 4$



$L_1 \cap L_2$



\* BC, AD, BE, AF can be erased.