Figure 1: Q01:  $L_1 = (a+b)^*a$ 

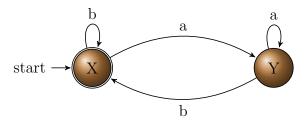


Figure 2: Q01:  $L_2 = b(a+b)^*$ 

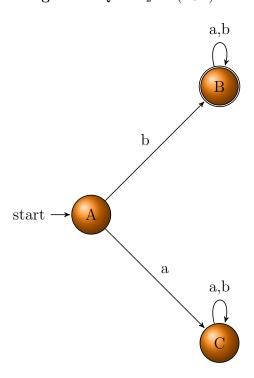


Figure 3: Q01:  $L_1 \cap L_2$ XA start a b YC ХВ b a YB YC XC b a b b XC YB ХВ

**Figure 4:** Q01:  $L_3 = b(b+aa*b)*$ 

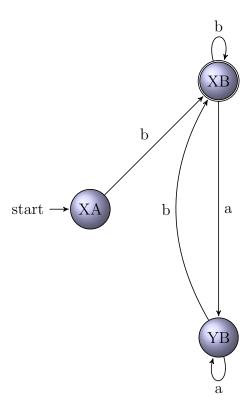
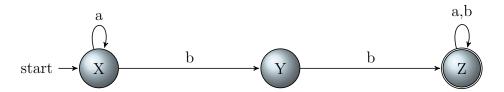


Figure 5: Q02:  $L_1 = (a+b)b(a+b)^*$ 



**Figure 6:** Q02:  $L_2 = b(a+b)^*$ 

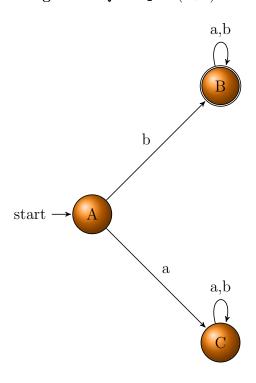


Figure 7: Q02:  $L_1 \cap L_2$ 

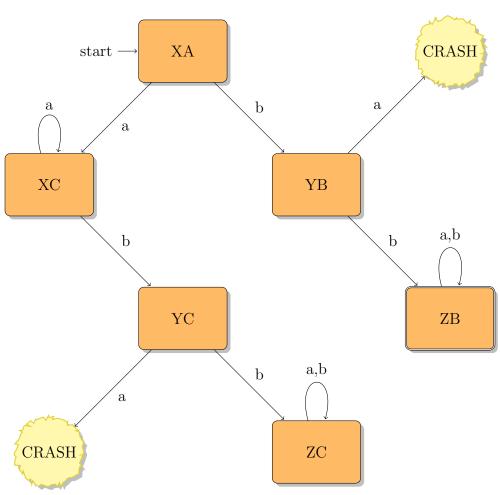


Figure 8: Q02:  $L_3 = ab(a+b)^*$ 

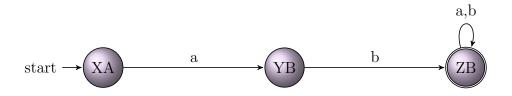


Figure 9: Q03:  $L_1 = (b+ab)^*(a+\Lambda)$ 

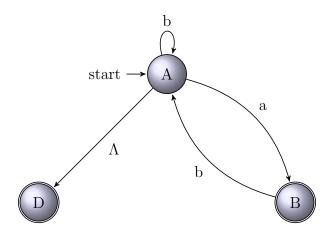


Figure 10: Q03:  $L_2 = (a+b)*aa(a+b)*$ 

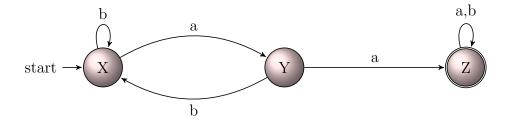


Figure 11: Q02:  $L_1 \cap L_2$ 

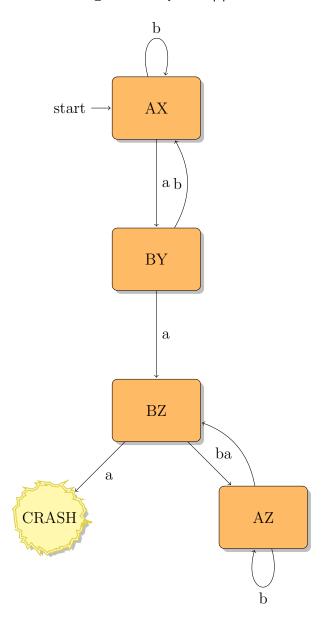


Figure 12: Q03:  $L_3 = (b+ab)*aa(bb*a)*$ 

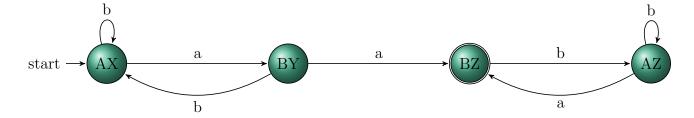
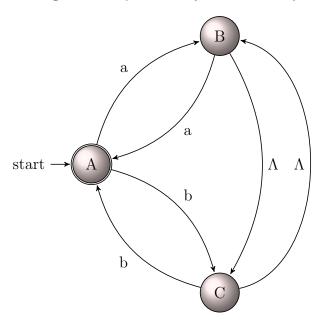
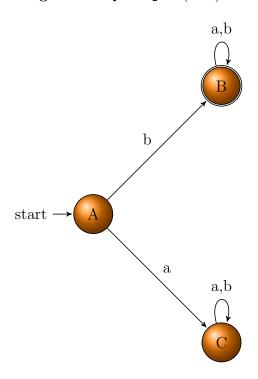


Figure 13: Q04:  $L_1 = (aa + ab + ba + bb)^*$ 



**Figure 14:** Q04:  $L_2 = b(a+b)^*$ 



**Figure 15:** Q04:  $L_1 \cap L_2$ AA start b ВС СВ a+ba+bb a AC AB b a+ba

10

ВВ

CC

a+b

Figure 16: Q04:  $L_3 = b(a+b)(b(a+b)+a(a+b))$ 

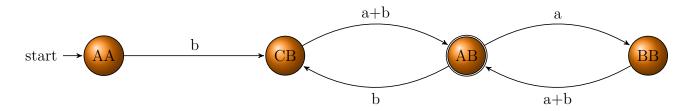


Figure 17: Q05:  $L_1 = (aaa + bbb)^*$ 

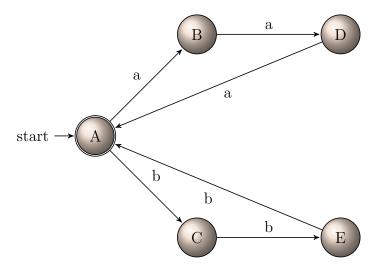


Figure 18: Q05:  $L_2 = a(a+b)^*$ 

