

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

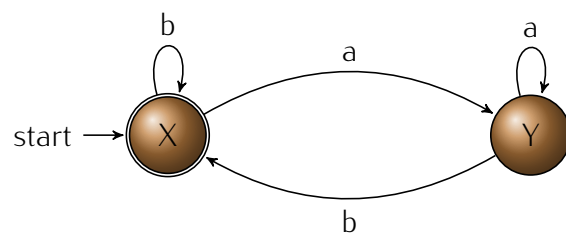


Figure 2: Q01:  $L_2 = b(a+b)^*$

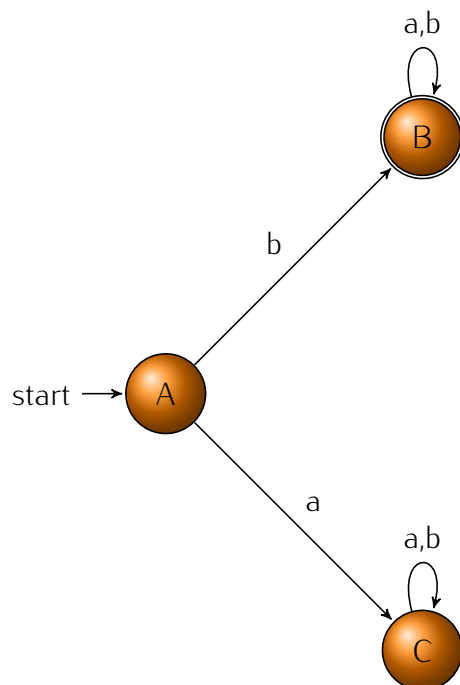


Figure 3: Q01:  $L_1 \cap L_2$

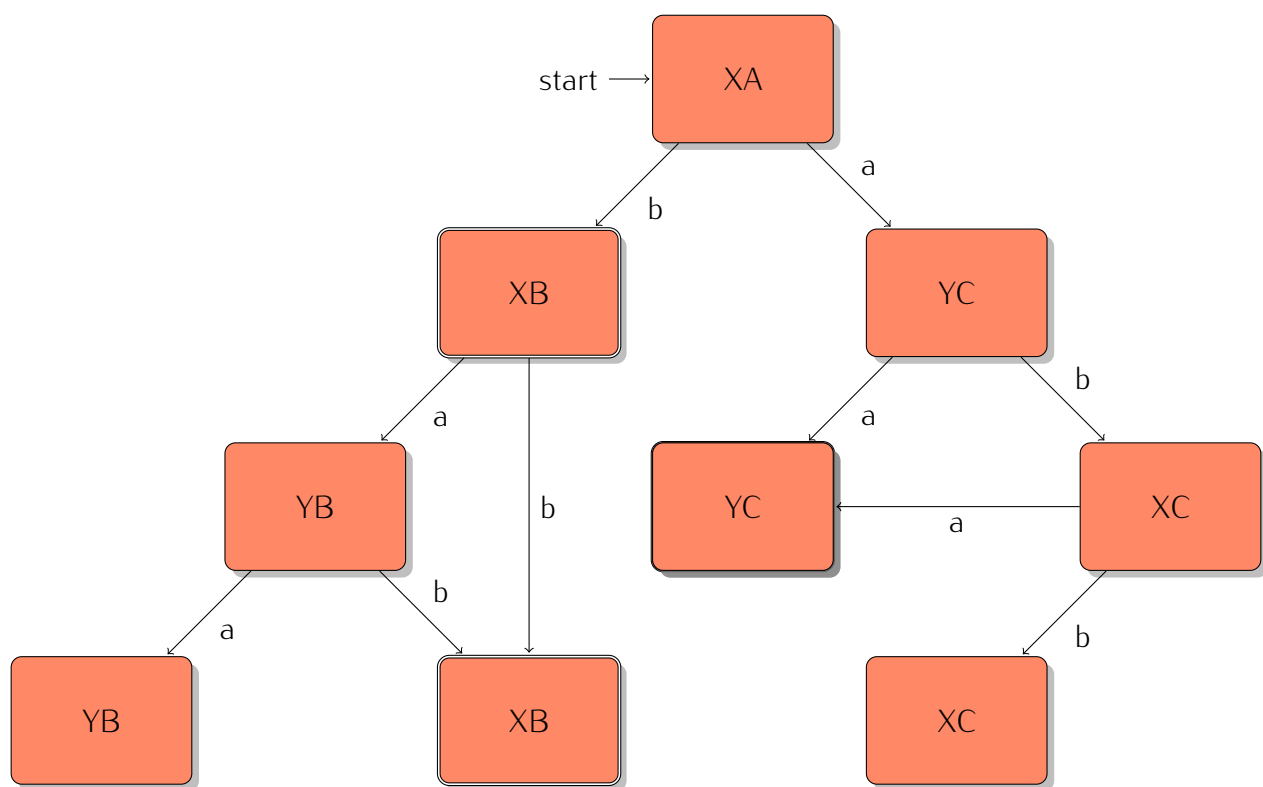


Figure 4: Q01:  $L_3 = b(b+aa^*b)^*$

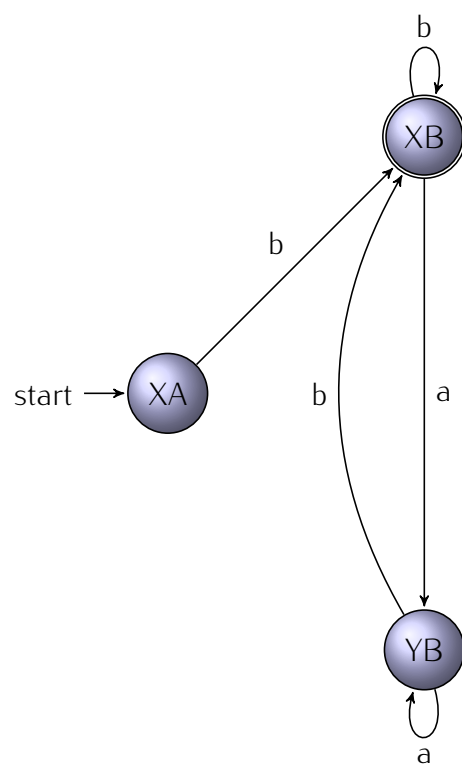


Figure 5: Q02:  $L_1 = (a+b)b(a+b)^*$

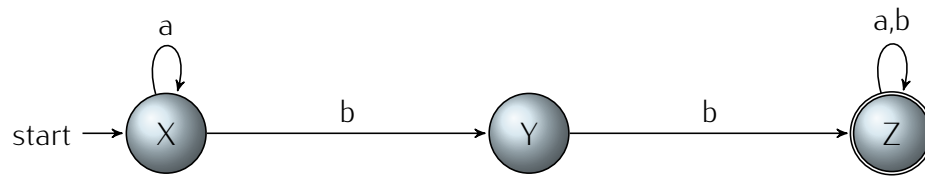


Figure 6: Q02:  $L_2 = b(a+b)^*$

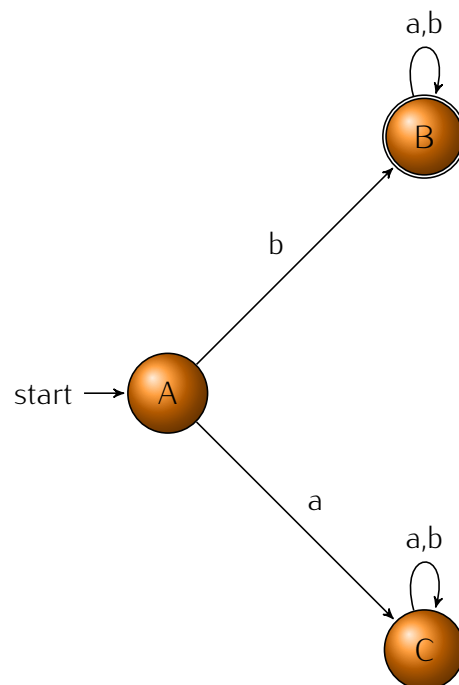


Figure 7: Q02:  $L_1 \cap L_2$

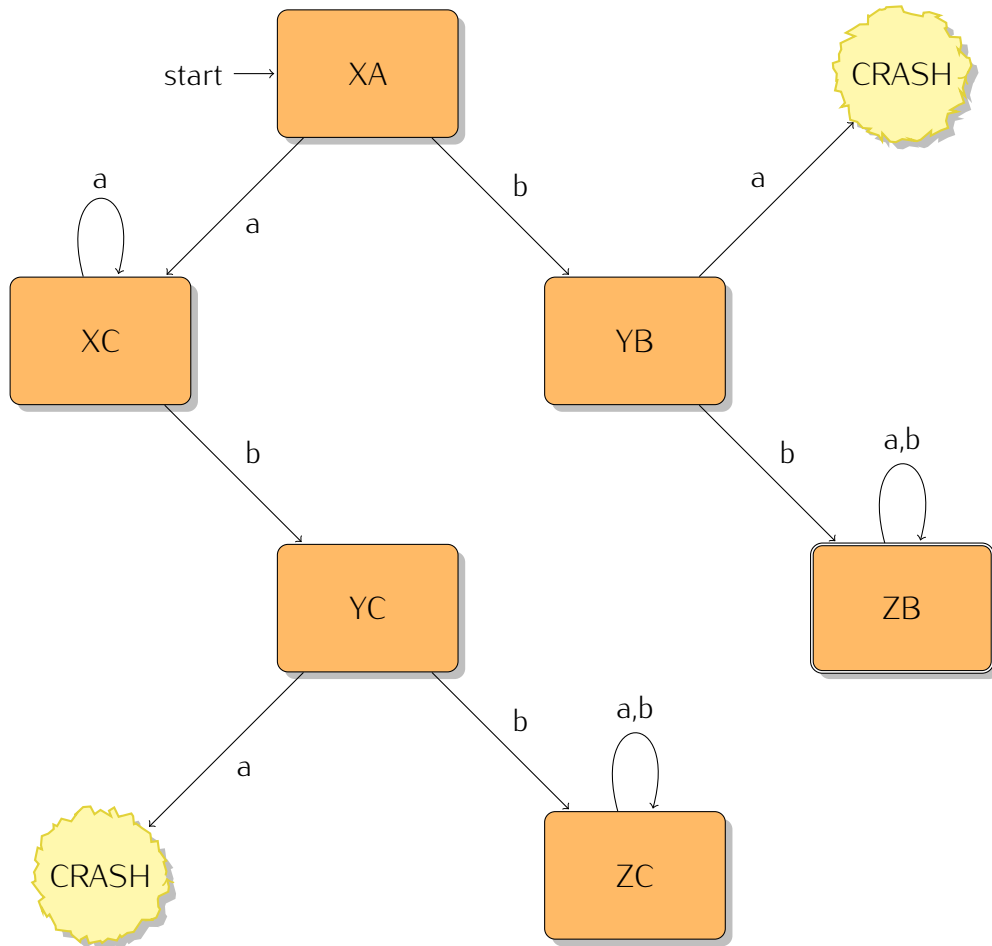


Figure 8: Q02:  $L_3 = ab(a+b)^*$

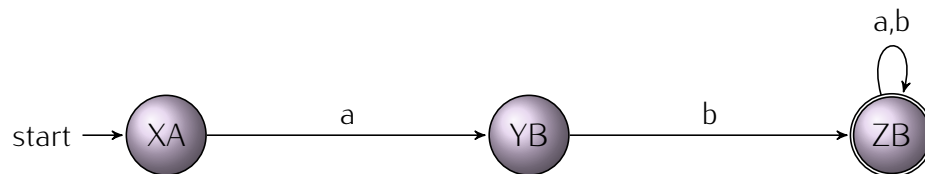


Figure 9: Q03:  $L_1 = (b+ab)^*(a+\Lambda)$

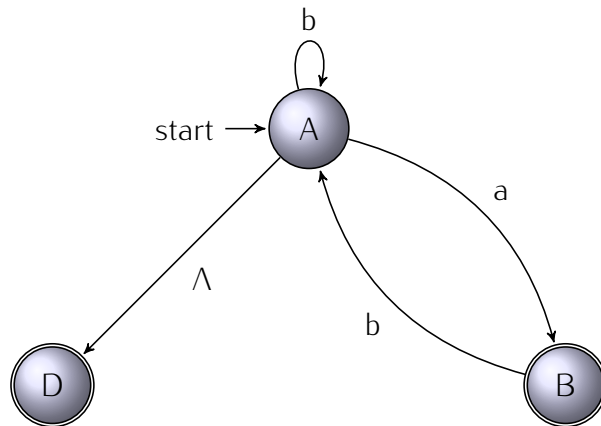


Figure 10: Q03:  $L_2 = (a+b)^*aa(a+b)^*$

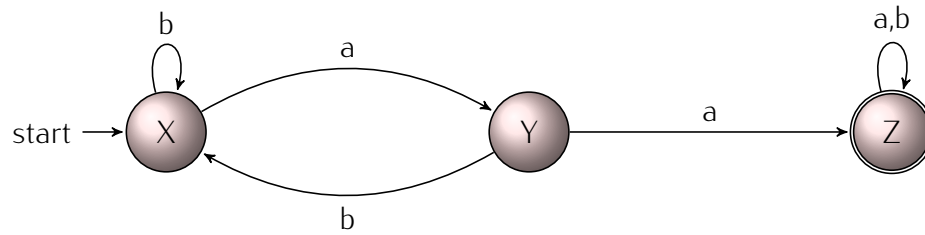


Figure 11: Q02:  $L_1 \cap L_2$

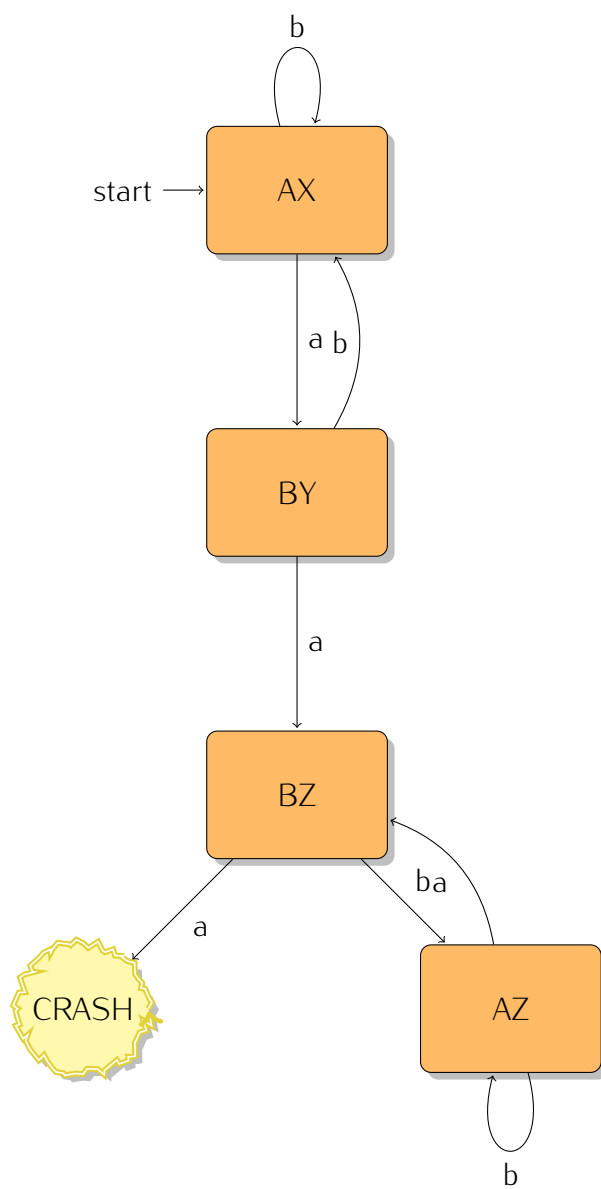


Figure 12: Q03:  $L_3 = (b+ab)^*aa(bb^*a)^*$

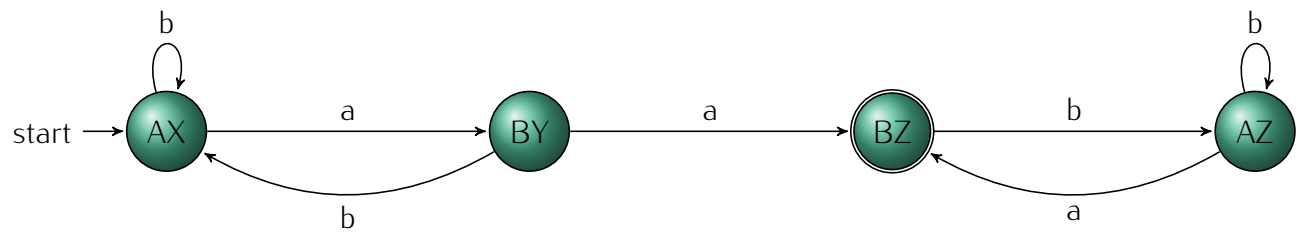




Figure 13: Q04:  $L_1 = (aa+ab+ba+bb)^*$

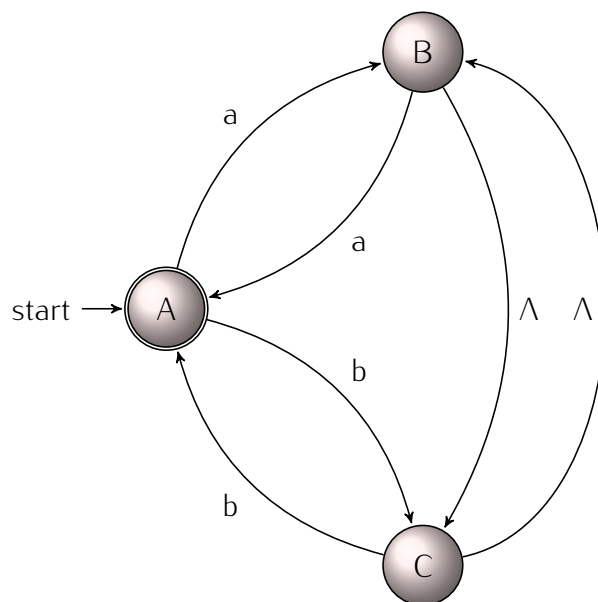


Figure 14: Q04:  $L_2 = b(a+b)^*$

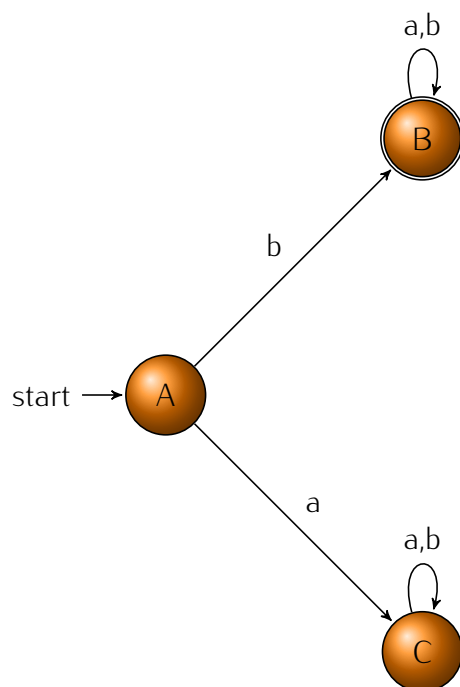


Figure 15: Q04:  $L_1 \cap L_2$

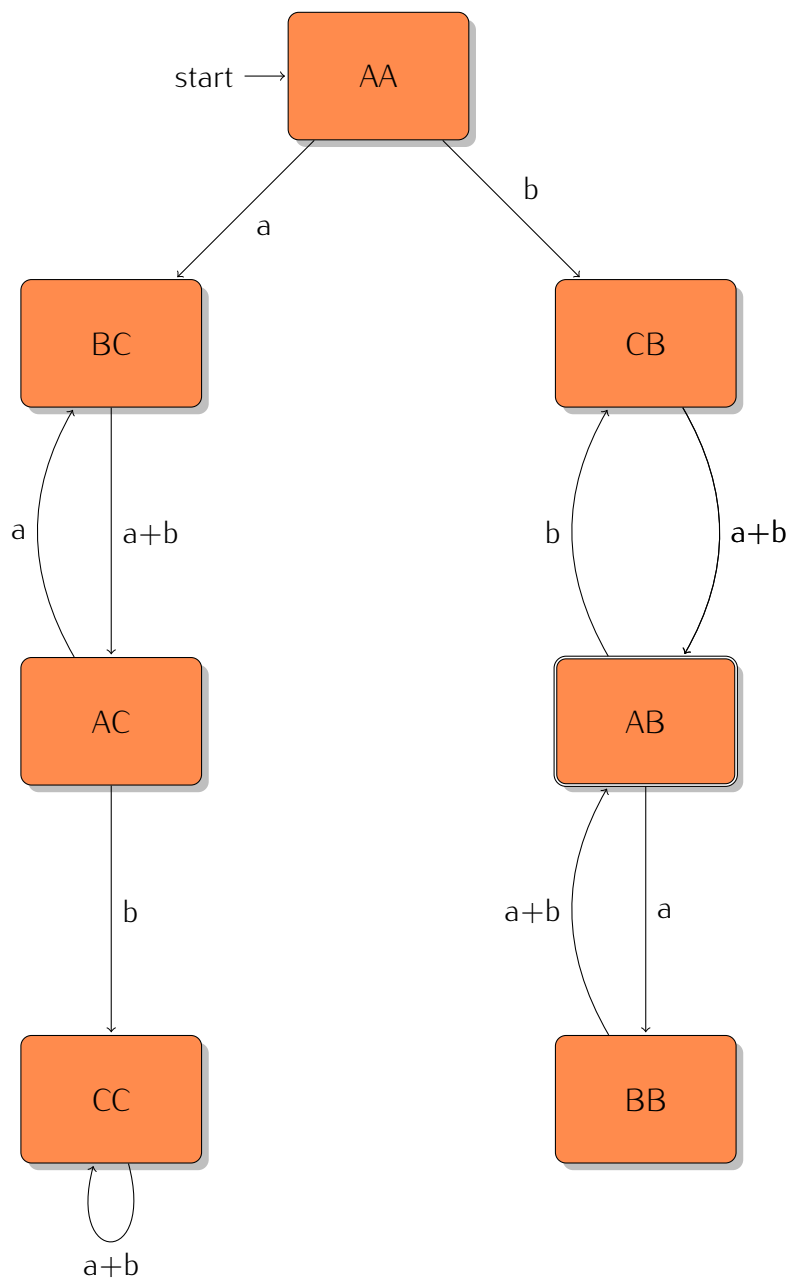


Figure 16: Q04:  $L_3 = b(a+b)(b(a+b)+a(a+b))$

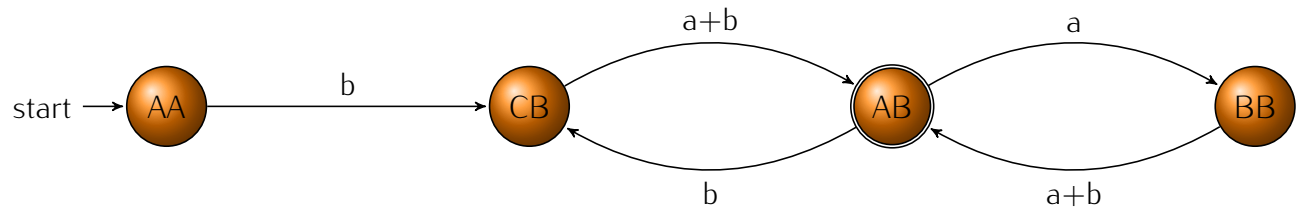


Figure 17: Q05:  $L_1 = (aaa+bbb)^*$

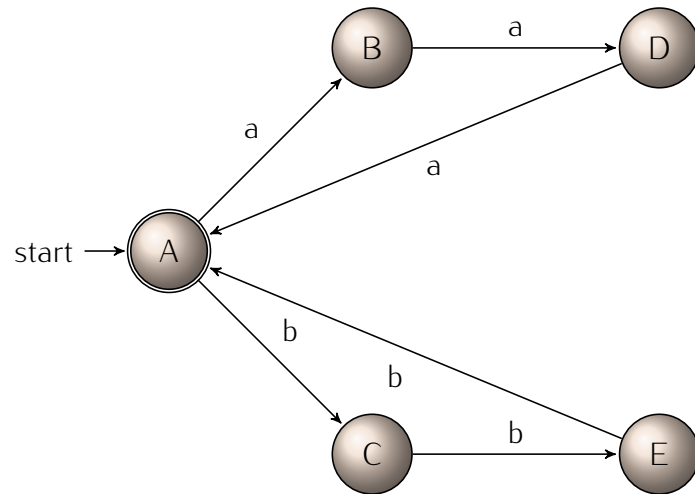


Figure 18: Q05:  $L_2 = a(a+b)^*$

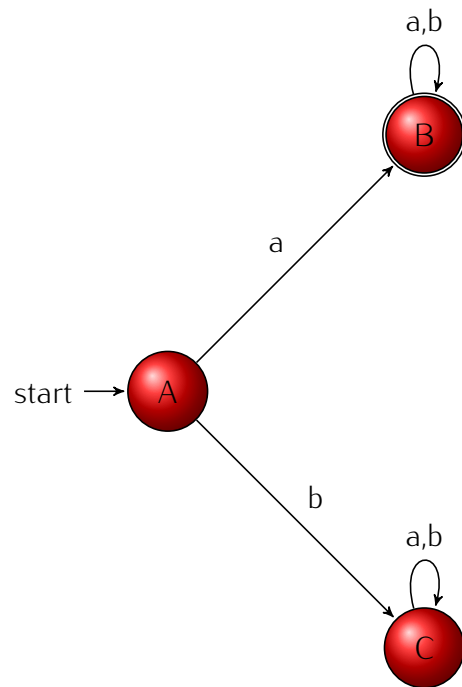


Figure 19: Q05:  $L_1 \cap L_2$

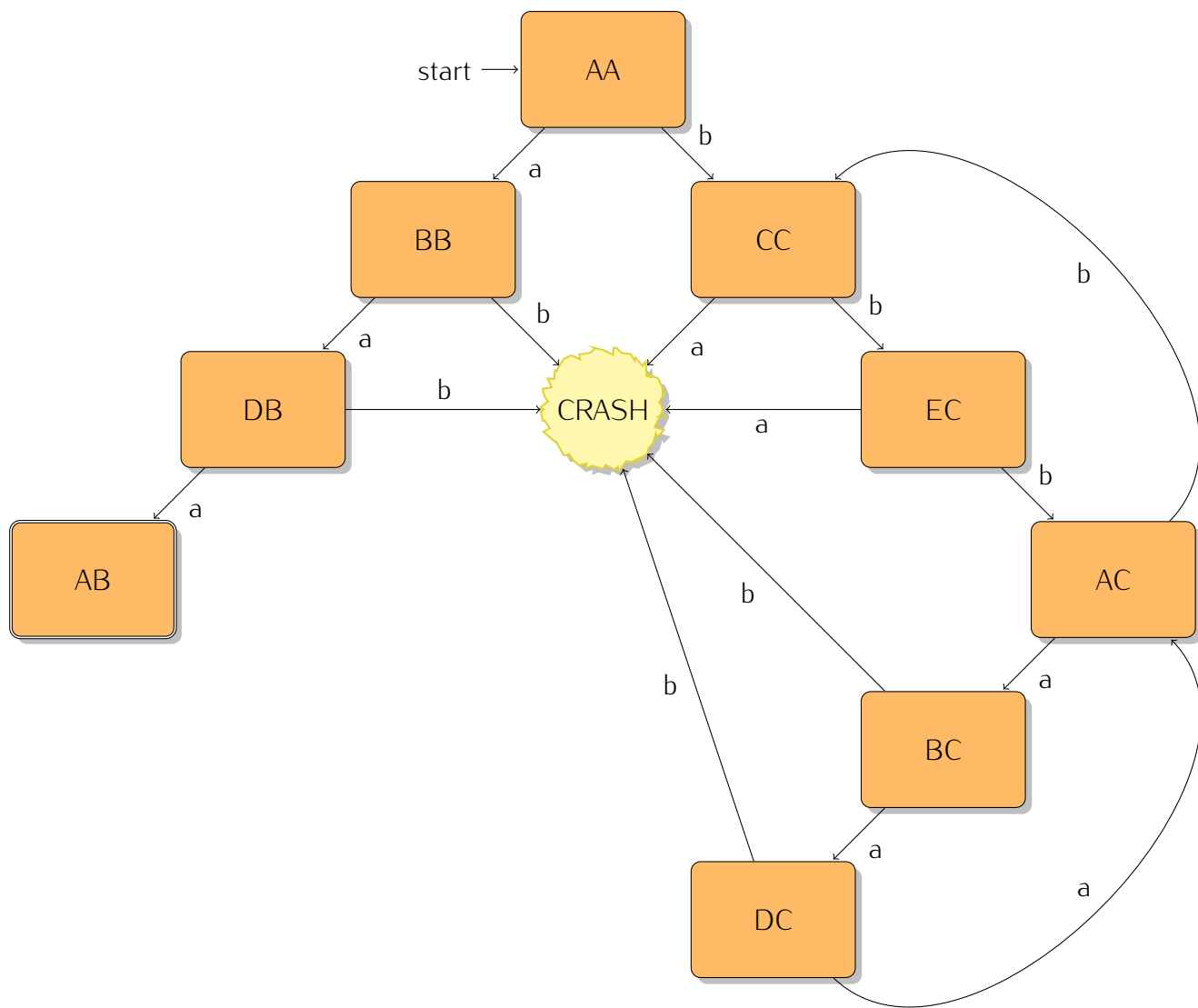


Figure 20: Q05:  $L_3 = aaa$

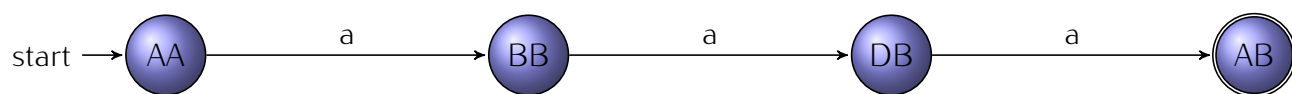


Figure 21: Q06:  $FA_1$

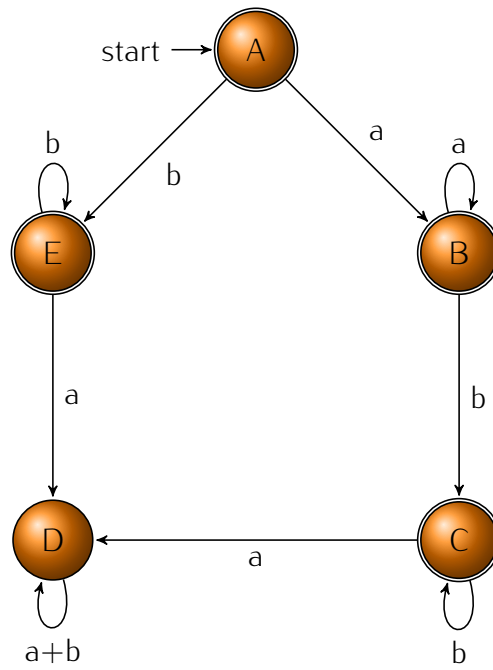


Figure 22: Q06:  $FA_2$

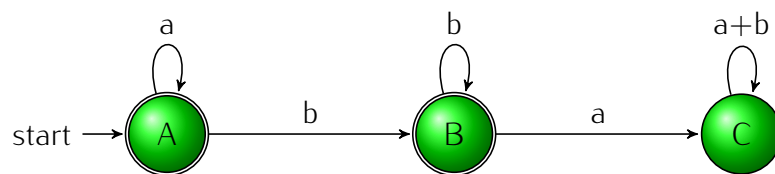
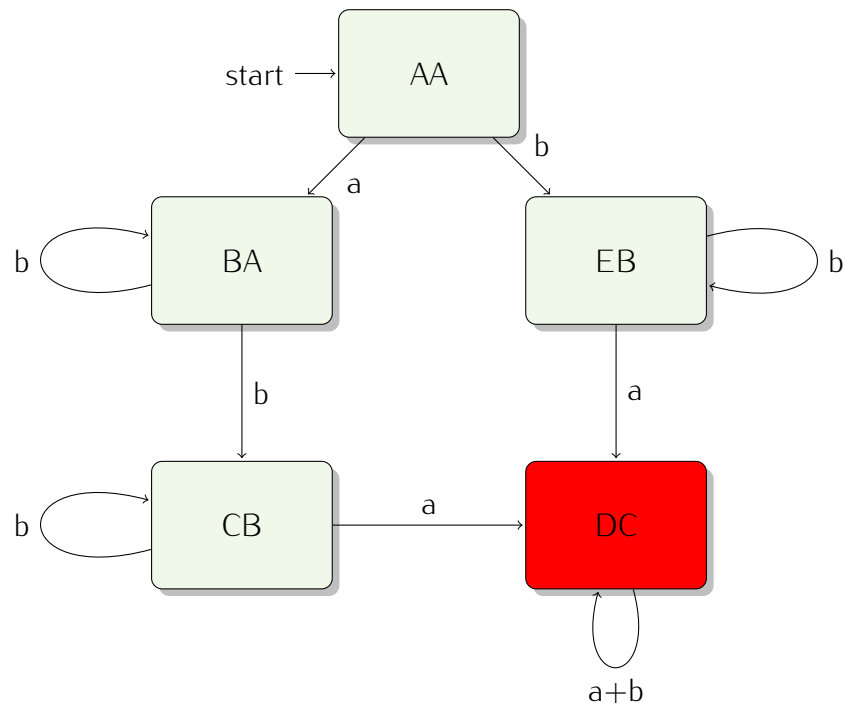


Figure 23: Q06:  $L_1 \cap L_2$



Not acceptable by  $L_1 \cap L_2$ : DC

Acceptable by  $L_1 \cap L_2$ : AA, BA, CB, EB

Figure 24: Q07:  $FA_1$

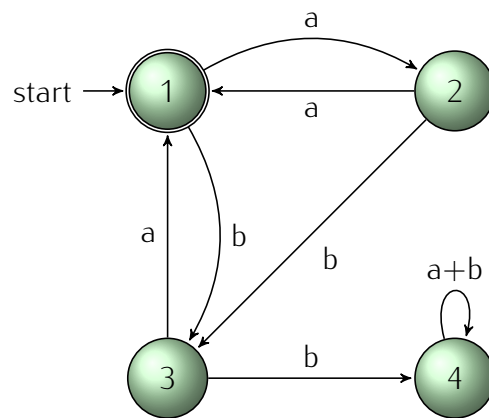


Figure 25: Q07:  $FA_2$

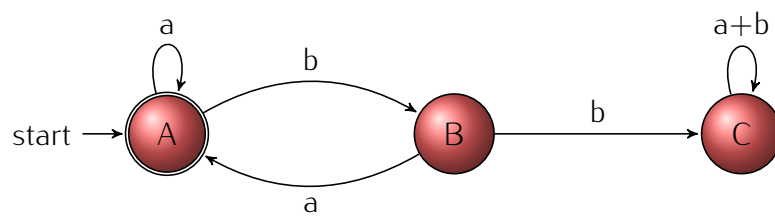




Figure 26: Q07:  $FA'_1$

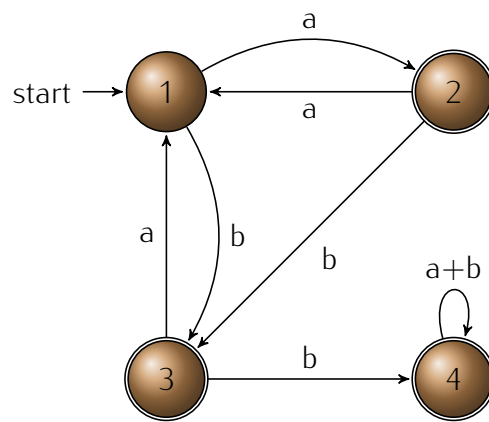
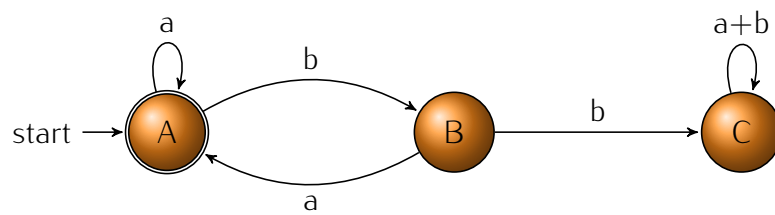


Figure 27: Q07:  $FA_2$



$$(FA'_1 + FA_2)'$$

Figure 28: Q07:  $FA_1$

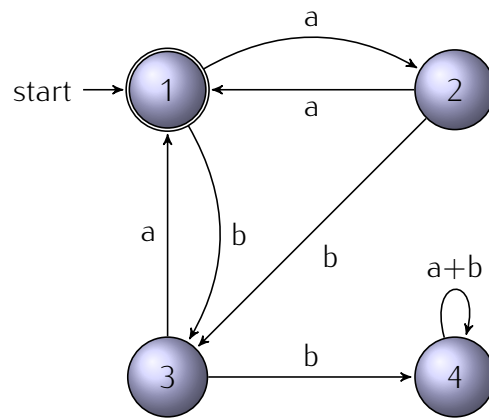
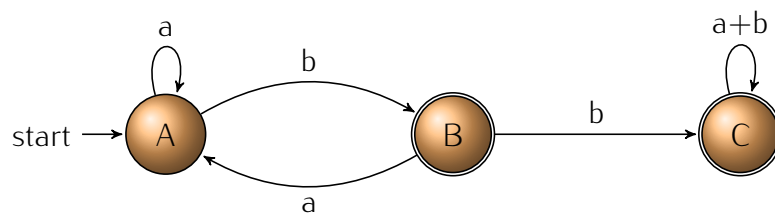


Figure 29: Q07:  $FA'_2$



$$(FA_1 + FA'_2)'$$