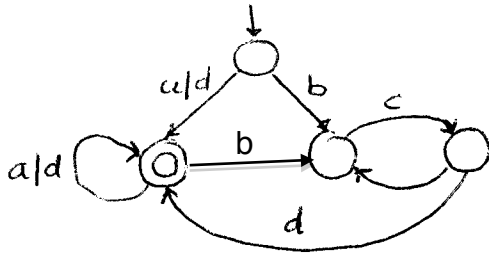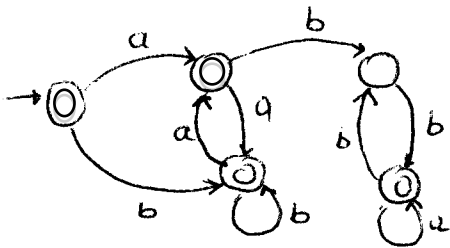# 1. Construct DFAs for the given regular expressions:

a) $(a \mid (bc)^*d)^+$

b) $(aa \mid b)^* (a \mid bb)^*$

c) $((\epsilon \mid a)b^*)^*$

2. Construct regular expressions corresponding to the following DFAs:

a)

$\longrightarrow (ac^*a \mid ac^*) \mid (ca^*c \mid ca^*)$

b)

$\longrightarrow (abc^+)^+$