$a,6$

$1,6$

$1,a,6$
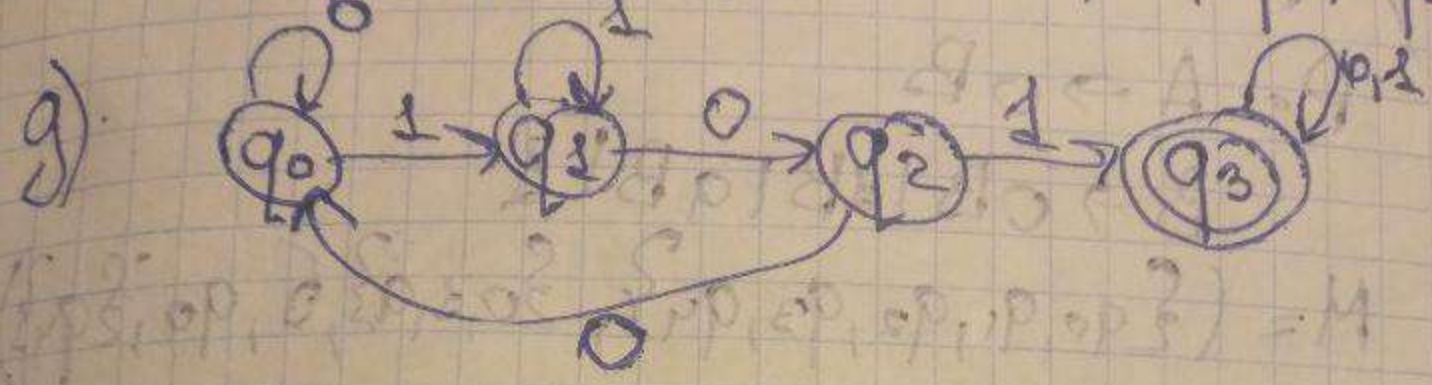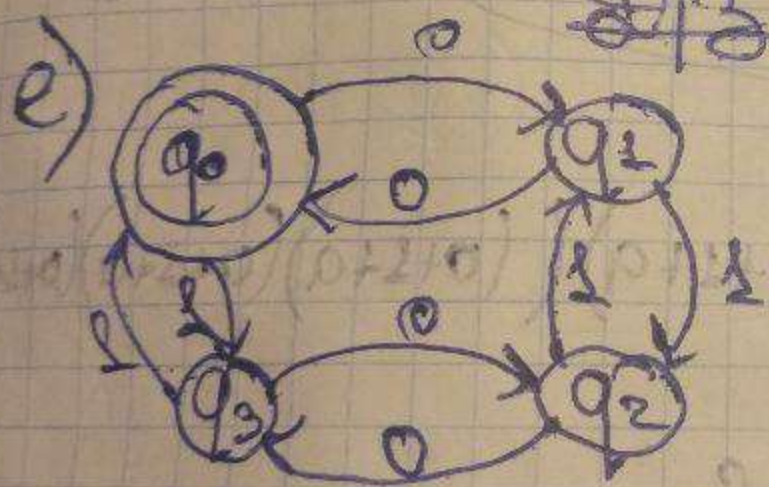
$$M = (\{q_0, q_1, q_2, q_3\}, \{0,1,a,6\}, 6, q_0, \{q_3\})$$

g)

$$M = (\{q_0, q_1, q_2, q_3\}, \{0,1\}, 6, q_0, \{q_3\})$$

e)

$$M = (\{q_1, q_2, q_3, q_0\}, \{0,1\}, 6, q_0, \{q_0\})$$
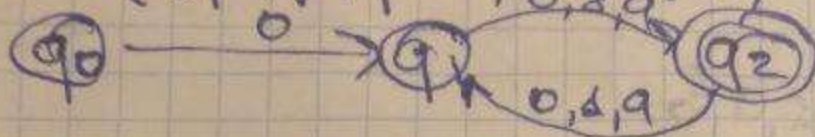
N17

a) $0(0+1+a)^* (0+1+a)^*$

P: $A \to 0B$
$B \to 0C \mid 1C \mid aC$
$C \to 0B \mid 1B \mid aB \mid \lambda$
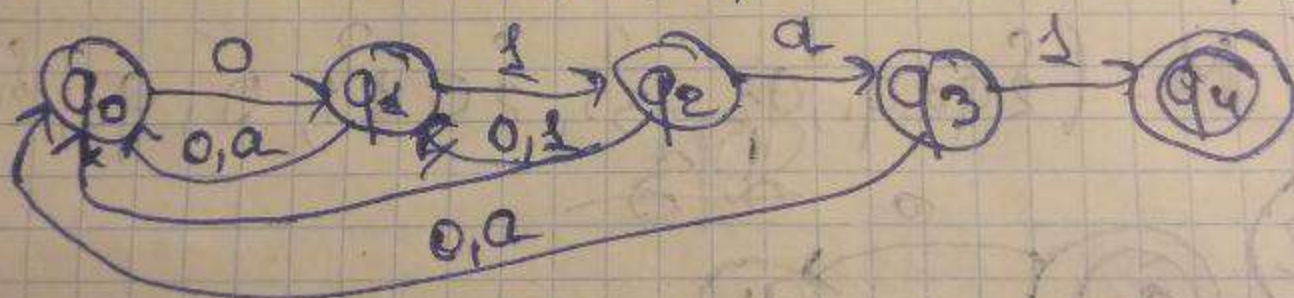
$M = (\{q_0, q_1, q_2\}, \{0, 1, a\}, \delta, q_0, \{q_2\})$

d) $0\{0+1+a\}^* 1$

P: $A \to 0B$
$B \to 0B \mid 1B \mid aB \mid 1$

$M = (\{q_0, q_1, q_2, q_3, q_4\}, \{0, 1, a\}, \delta, q_0, \{q_4\})$.

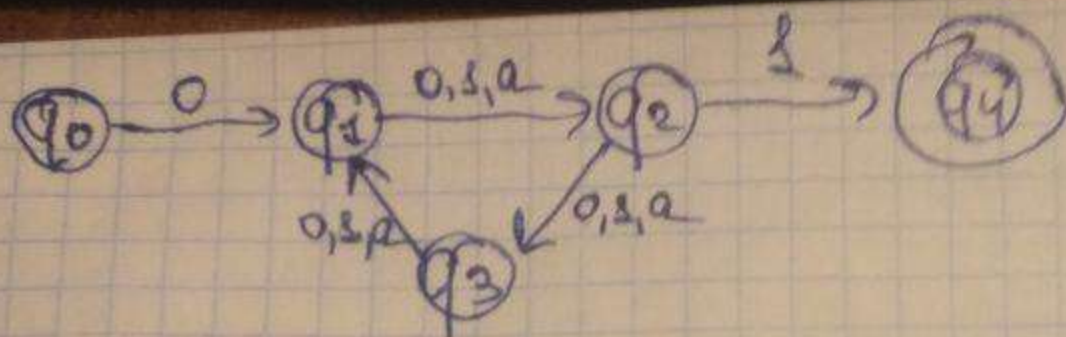B) $\cancel{0\{0+1+a\}^*}\ 0(0+1+a)((0+1+a)(0+1+a)(0+1+a)1$

P: $A \to 0B$
$B \to 0R \mid 1C \mid aC$
$C \to 0D \mid 1D \mid aD \mid 1$
$D \to 0B \mid 1B \mid aB$

$M = (\{q_0, q_1, q_2, q_3, q_4\}, \{0, 1, a\}, \delta, q_0, \{q_4\})$

g) $(a+b+c)^* bb$

P: $A \to aA \mid bA \mid cA \mid B$

$B \to bC$

$C \to b$

M = ({q_0, q_1, q_2, q_3}...)

a, c

a, b

a, c

$M = (\{q_0, q_1, q_2, q_3, q_4, q_5\}, \{a, b, c\}, \delta, q_0, \{q_5\})$