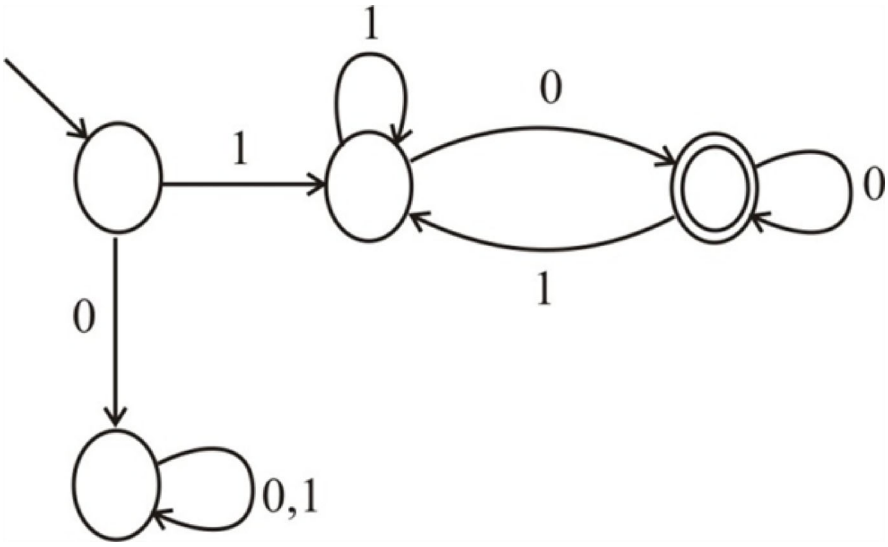
获得的答案 **返回**

(a)

Language $L = \{w \mid w$ begins with a 1 and ends with a 0$\}$

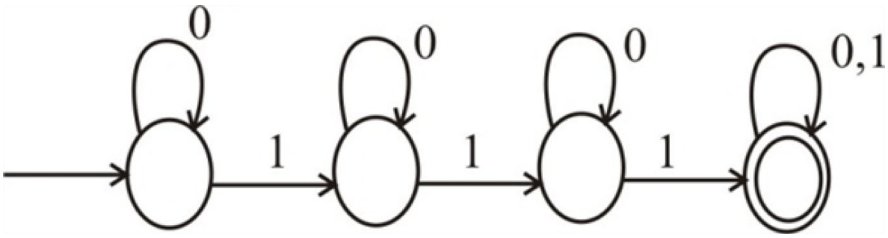
State diagram of *DFA* that recognizes *L* is given by:



(b)

Language $L = \{w \mid w$ contains at least three 1s$\}$

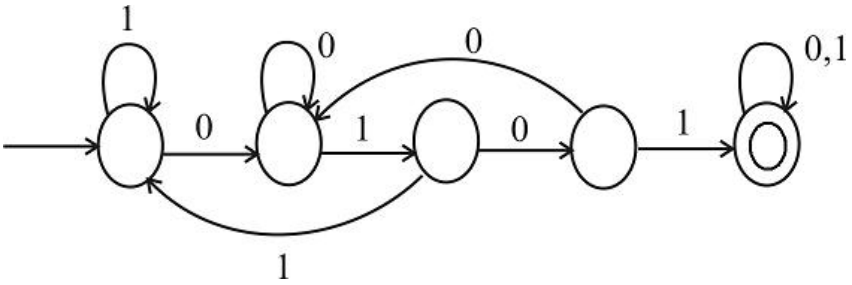
State diagram of *DFA* that recognizes *L* is given by:



(c)

Language $L = \{w \mid w$ contains the substring 0101, i.e. $w = x0101y$ for some *x* and *y*$\}$

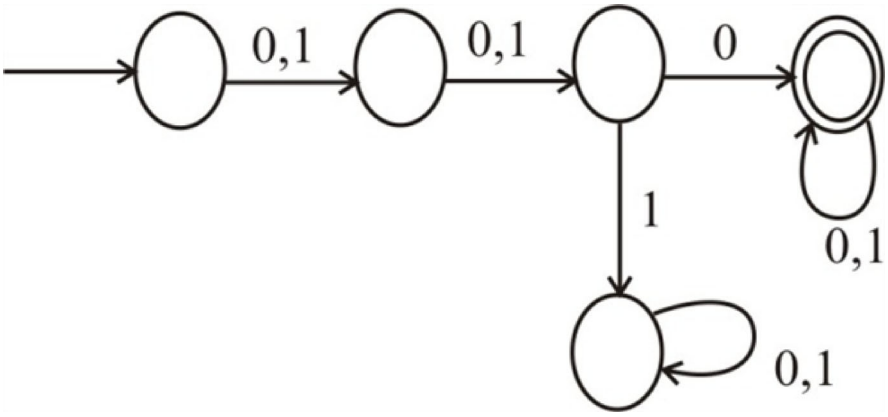
State diagram of *DFA* that recognizes *L* is given by:



(d)

Language $L = \{w \mid w$ has length at least 3 and its third symbol is a 0$\}$

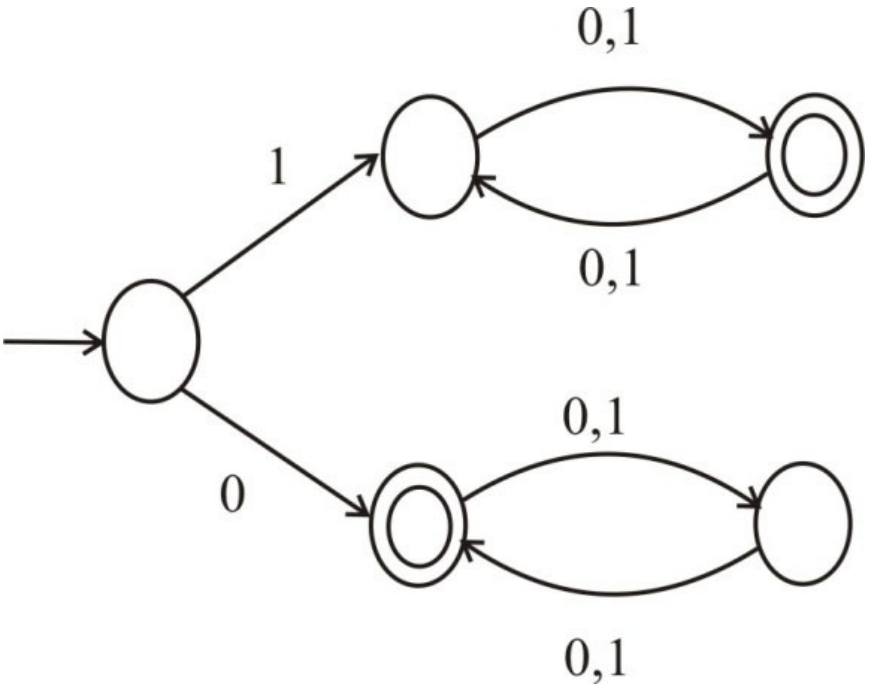
State diagram of *DFA* that recognizes *L* is given by:



(e)

Language $L = \{w \mid w$ starts with 0 and has odd length, or starts with 1 and has even length$\}$

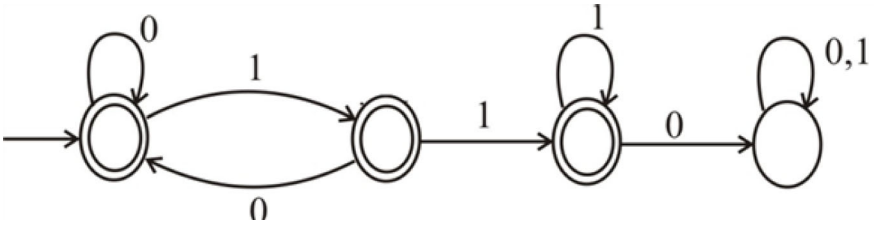
State diagram of *DFA* that recognizes *L* is given by:



(f)

Language $L = \{w \mid w$ doesn't contain the substring 110$\}$

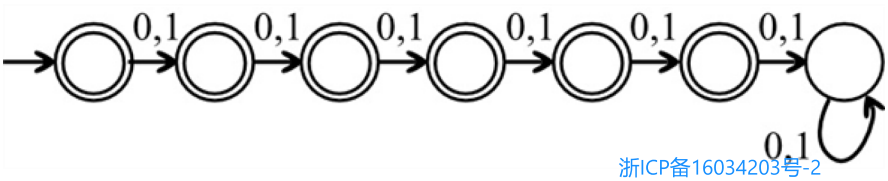
State diagram of *DFA* that recognizes *L* is given by:



(g)

Language $L = \{w \mid$ length of w is at most 5$\}$

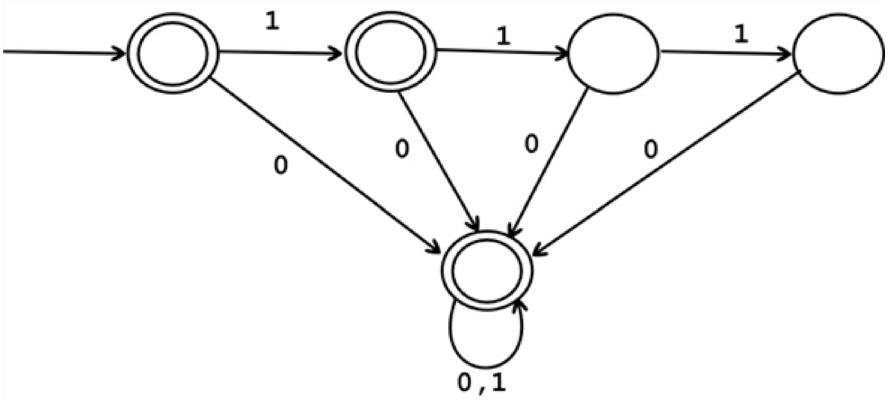
State diagram of *DFA* that recognizes *L* is given by:



(h)

Language $L = \{w \mid w$ is any string except 11 and 111$\}$

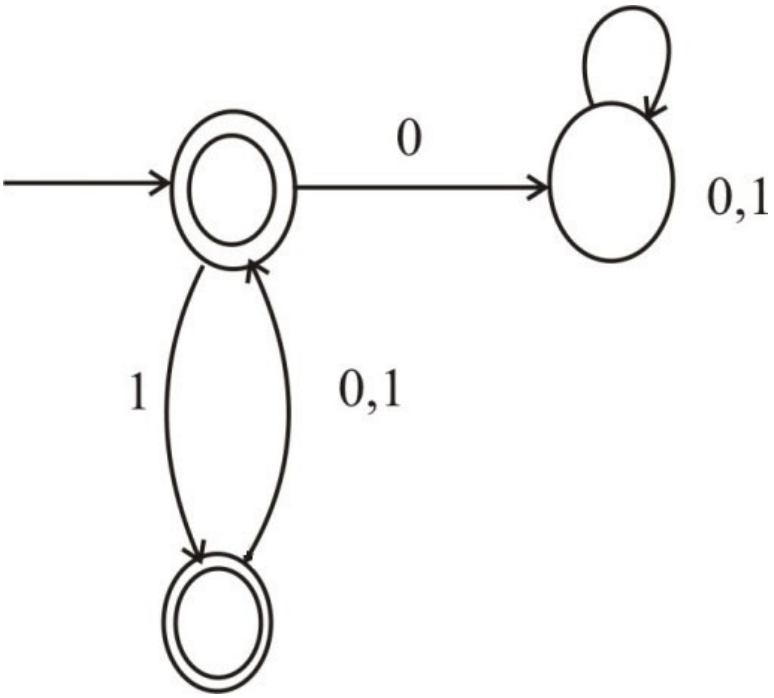
State diagram of *DFA* that recognizes *L* is given by:



(i)

Language $L = \{w \mid w$ every odd position of w is a 1$\}$

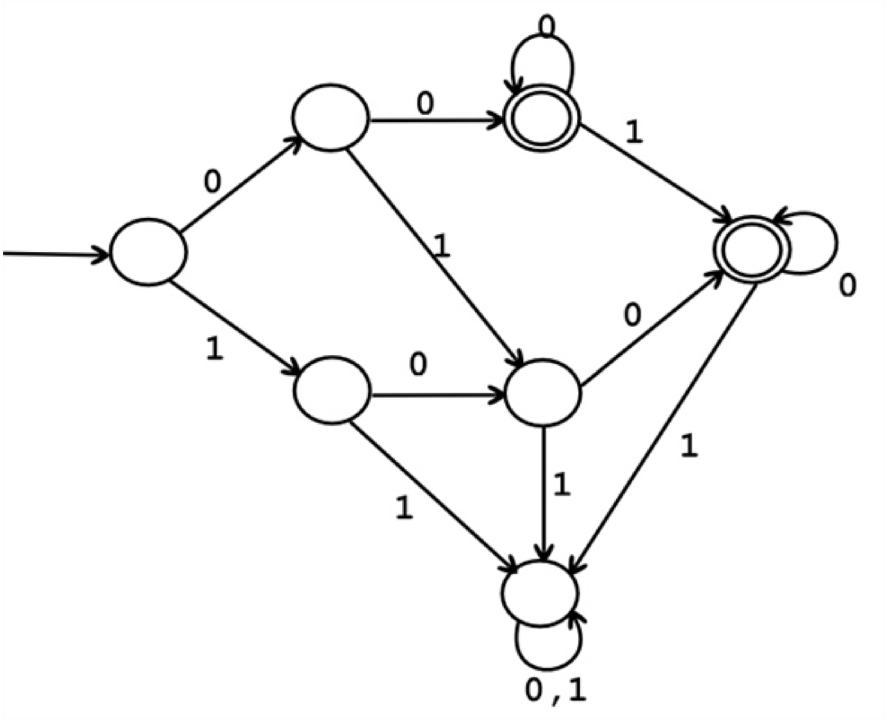
State diagram of *DFA* that recognizes *L* is given by:



(j)

Language $L = \{w \mid w$contain at least two 0s and at most one 1$\}$

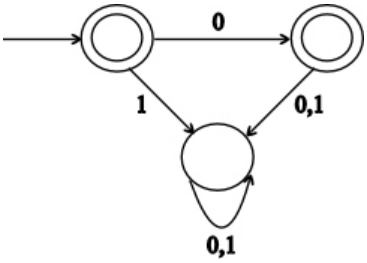
State diagram of *DFA* that recognizes *L* is given by:



(k)

Language $L = \{\in, 0\}$

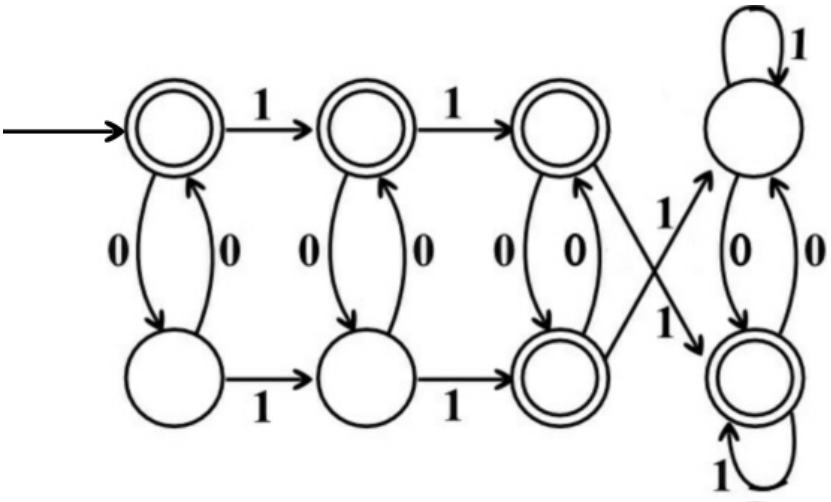
State diagram of *DFA* that recognizes *L* is given by:



(l)

Language $L = \{w \mid w$ contains an even number of 0s, or contains exactly two 1s$\}$.

State diagram of *DFA* that recognizes *L* is given by:



The language L accepts the strings that contain even number of 0s or contains exactly two 1s. This language accepts the string if any one of the two conditions is satisfied.

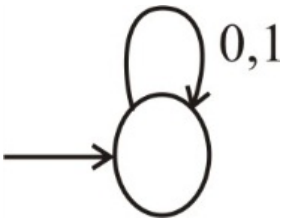
Consider the string 11, the string 11 contains zero number of 0s which is even. In this case, the first condition is accepted. Thus, the language L accepts the string 11.

(m)

Language L= {The empty set}

The empty set does not contain the null string. The language L does not accept any string even the null string.

State diagram of *DFA* that recognizes *L* is given by:



(n)

Language L ={all strings except the empty string}

State diagram of *DFA* that recognizes *L* is given by: