

CSE331

Automata & computability

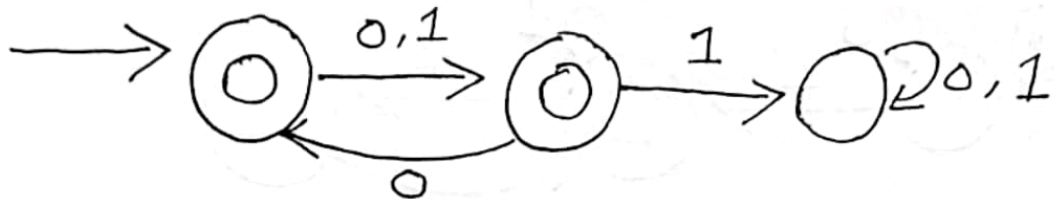
Assignment:-1
section : 02

Part A (10-18)

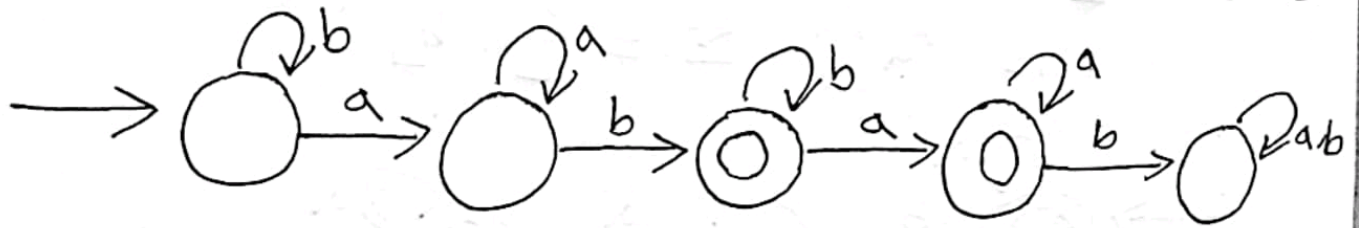
Submitted by,

1. Faiaz Abrar Zaman Prunoy - 22301061
2. Miss Nazmoon Nahar Aka - 22101649
3. Md. Fahmidur Rahman - 20301436
4. Kefaiat Lamia Ehsani - 17201097
5. Arif Abrar Tonish - 22101324

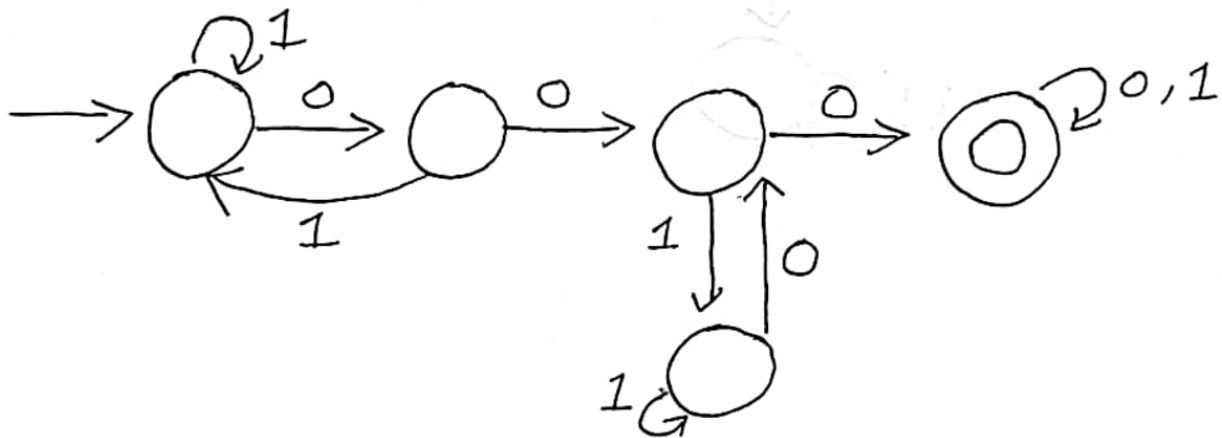
10. (b) $\{w \text{ has } 0 \text{ in all even position}\}$
 $\Sigma = \{0, 1\}$



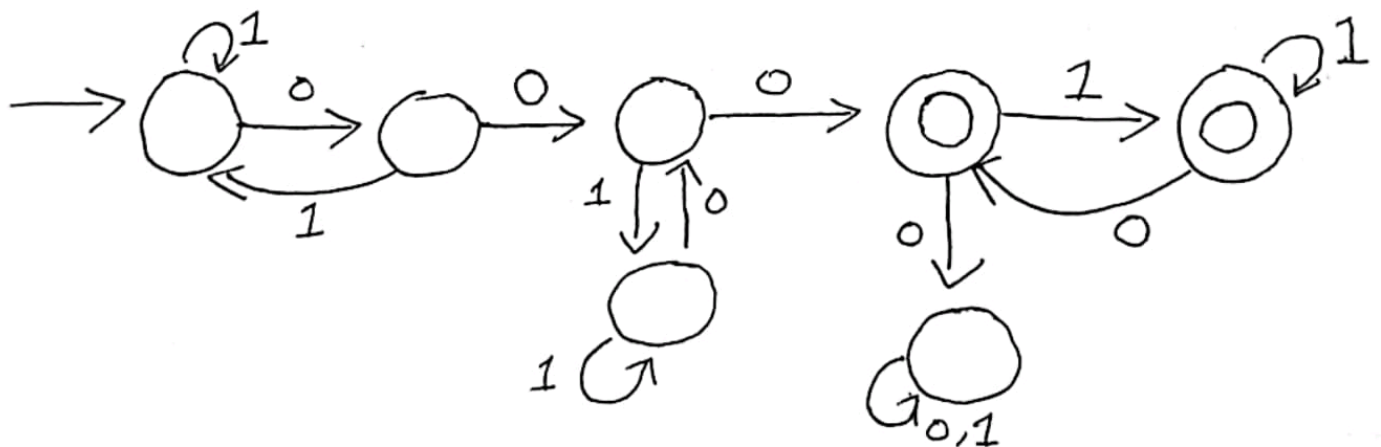
11. (a) DFA ^{which} accepts exactly one 'ab' $\Sigma = \{a, b\}$



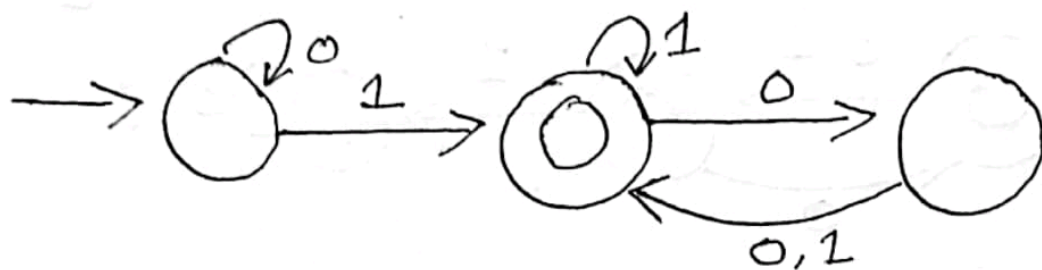
12. DFA which accepts at least two 00. $\Sigma = \{0, 1\}$



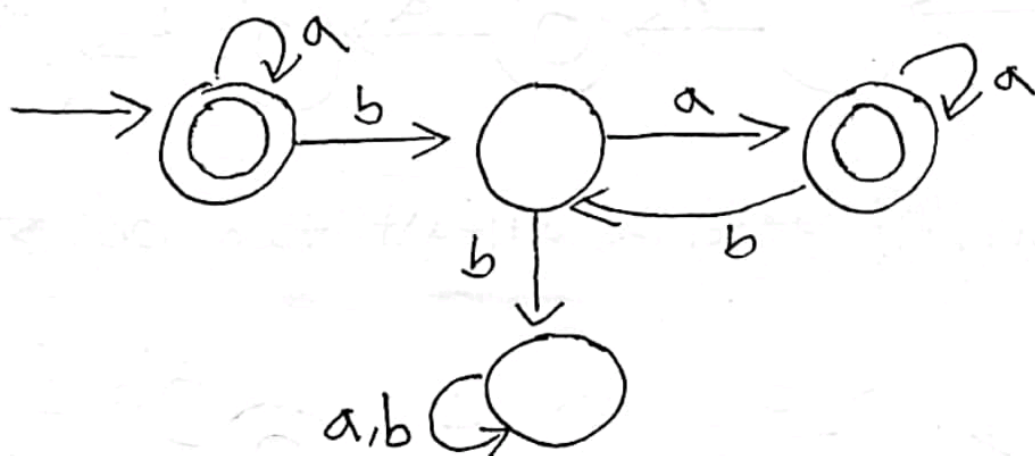
13. (a) DFA which accepts exactly two 00's. $\Sigma = \{0, 1\}$



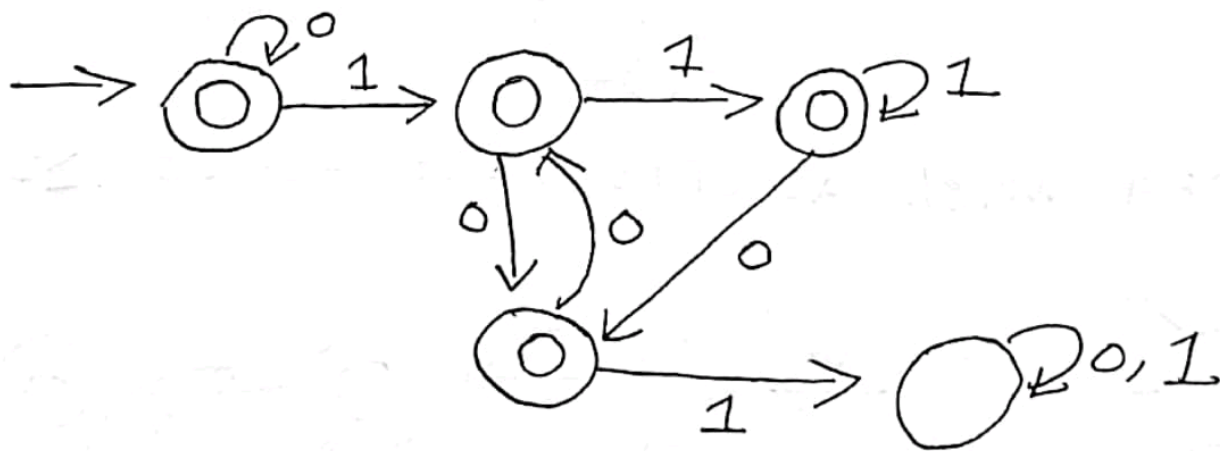
14. {An even number of 0's follow the last 1 in w } $\Sigma = \{0, 1\}$



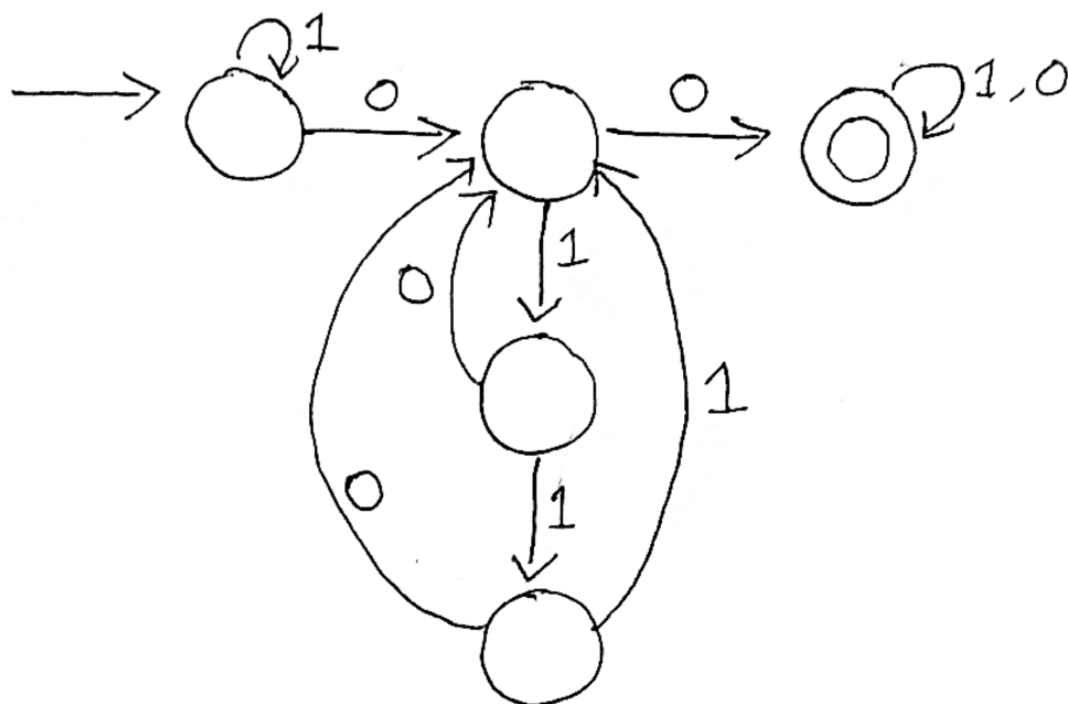
15. { w | each 'b' is followed by at least one 'a'} $\Sigma = \{a, b\}$



16. {Numbers of 0's between two successive 1's will be even} $\Sigma = \{0, 1\}$



17. (a) $\{w \text{ contains } 01^m 0 \text{ as a substring where } m \text{ is divisible by } 3.\}$



18. (a) $\{w \in \{0,1\}^* : w = 0^m 1^n \text{ where } m \text{ and } n \text{ both are odd.}\}$

