# Department of Computer Engineering, SVNIT, Surat.
# Course: CO-321 Theoretical Computer Science
# Tutorial – 3
## (DFA – Deterministic Finite Automata)

1. Construct a DFA for $\Sigma = \{a, b\}$ that accepts
   a) All string with $aab$ as a substring
   b) All String ending with $abb$

2. Design a DFA on alphabet $\Sigma = \{0,1\}$ that accepts
   a) All strings not ending with $010$
   b) All strings with exactly two $1's$
   c) All strings with at least two $0's$

3. Construct a DFA for $\Sigma = \{0,1\}$ that have an odd number of $1's$ and even number of $0's$.

4. Construct a DFA which accepts all strings over $\Sigma = \{a, b\}$ in which every $'a'$ should be followed by $'bb'$.

5. Construct a DFA which accepts a language of all strings not starting with ‘a’ or not ending with ‘b’.