Date:20/3/2025

Design Deterministic Finite Automata for the following.

1. L = {w | |w| mod 3 = 0} for Σ = {a, b}
2. DFA to detect odd binary numbers over Σ = {0,1}.
3. DFA to Accept strings that doesn't contain two consecutive 0's for Σ = {0,1}.
4. Accept all strings that either begin or end or both with 01.
5. DFA to Detect even number of 0's for Σ = {0, 1}.
6. DFA to accept strings belonging to the language L = {w | n(a) mod 3 > 1} for Σ = {a, b}.
7. DFA for L = {w| |w| mod 3 >= |w| mod 2} where w ∈ Σ\* and Σ = {a, b}.
8. DFA to accept binary numbers that are divisible by 5 and start with 1.
9. Design an automaton with Σ = {0, 1} that accepts set of all strings except those containing substring 001.

Design Non-Deterministic Finite Automata for the following:

1. Design an NFA to accept strings over {0,1} for all strings ending with 00.
2. Design an NFA to accept strings with an arbitrary number of 0s followed by one 1.
3. Design an NFA to accept all strings with exactly one 0.
4. Convert the following NFA to DFA



1. Convert the following NFA to DFA

