Tutorial No. 9
Turing Machine

1. Define Following Terms: (CO1)
    a) Turing Machine.
    b) Acceptance of a string in Turing Machine.
    c) Configuration of Turing Machine
    d) Computing a function by Turing Machine.

2. Design Turing machine for following (assume Σ = {a,b}): (CO6)
    a) L = { x| length of x is odd} and show acceptance of string “aba” & “aabba”
    b) Replace every ‘a’ in the string by ‘A’ and show conversion of string “aabb”
    c) L = {xx | x ϵ Σ*} and show acceptance of string “abaaba”
    d) (a+b)*ab
    e) (a+b)*aba(a+b)*
    f) Turing Machine to compute N mod 2

3. Show encoding of “Turing machine to accept odd length strings” (CO6)