

Theory of Automata

Assignment # 03

Turing Machine

1. Construct a Turing Machine (TM) for language $L = \{ a^i b^j c^k \mid i > j > k; k \geq 1 \}$ and give the status for the input string as accepted or rejected; input = aaabbc.
2. Construct a TM for $L = \{ wCw, \text{ where } w \in \{ a, b \}^* \}$
3. Construct a TM that converts given unary numbers to binary.