Tutorail-8

Q1. Show that a TM can simulate a PDA with one stack

Illustrate with an example.

Q 2. Let Z = {0,1}. Show that the problem of determining whether a CFG generates some string in 1\* is decidable.

Show using construction of the CFG and simulation in the TM.

Q3. Step wise show the construction of: Composition of a DFA and a PDA (single stack).

Q18. A useless state in a pushdown automaton is never entered on any input string. Consider the problem of determining whether a pushdown automaton has any useless states. Prove by simulation of a PDA in TM.