



PES UNIVERSITY, Bangalore

(Established under Karnataka Act No. 16 of 2013)

Department of Computer Science & Engineering

UE19CS205 - Automata Formal Languages & Logic

Homework - NFA/ λ -NFA

- 1) Given the alphabet is $\{0, 1\}$, construct a NFA with three states, that accepts $L = \{w \mid w \text{ ends with } 00\}$.
- 2) Given the alphabet is $\{0, 1\}$, construct a NFA where the sum of the last 4 digits is even.
- 3) Construct an NFA for the language of all strings over $\{a, b, c\}$ for which one of the number of occurrences of a or b or c is a multiple of 3.
- 4) Construct an NFA that will accept strings over alphabet $\{1, 2, 3\}$ such that the last symbol appears at least twice, but without any intervening higher symbol, in between: e.g., 11, 2112, 123113, 3212113, etc.
- 5) What is the language accepted by the following NFAs?

