LESSON 3

Regular Expressions and Languages

Not all words from the alphabet are acceptable words or valid

An RE can be defined as a language or string accepted by a fa. In the 5 tuples of an FA, an RE is a string on ., it consists of only input alphabets.

Q – set of states

SIGMA – input alphabets

Transition function – where will the device go to, what is the next state

Q naught – initial state

F – set of final state

Closure/repetition – many iterations of P or coming from an alphabet

UNION

CONCATENATION

CLOSURE

Kleene’s Closure – a set of all strings including null obtained from the alphabets of the set.

(ALWAYS INFINITE)

Closure is any repetition

Kleene’s Closure – null is present in the set

\* signifies Kleene’s Closure