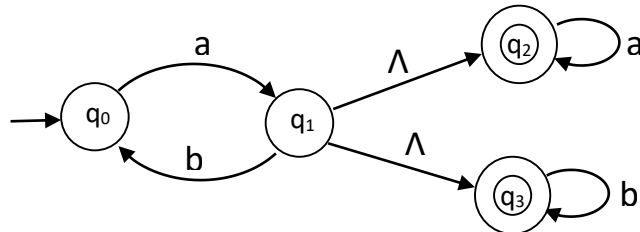


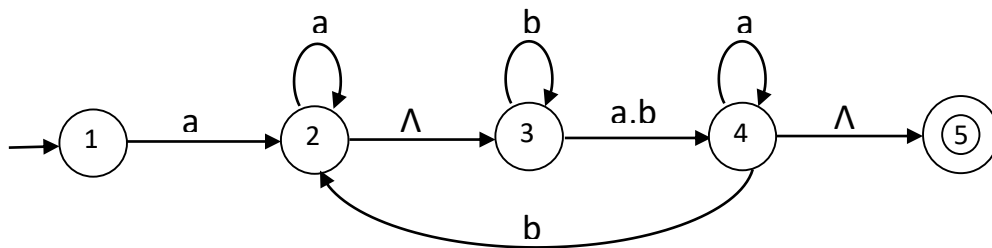
## Tutorial No. 6

### Non-deterministic Finite Automata with $\Lambda$ Transitions

1. Define null closure of a set.
2. Define extended transition function for NFA-  $\Lambda$ .
3. For following NFA-  $\Lambda$ :



- i) Find  $\delta^*(q_0, aa)$ ,  $\delta^*(q_0, ab)$
  - ii) Convert above NFA- $\Lambda$  to DFA.
4. For following NFA- $\Lambda$ :



- i) State whether the above NFA- $\Lambda$  accepts following string or not:  
a) aba      b) abab
- ii) Convert above NFA- $\Lambda$  to DFA.