

Theory of Automata – CS331

Quiz-4

17th May 2024

Consider the following regular expressions:

$$r_0 = (a+b)(a+\epsilon)^*b+\epsilon$$

$$r_1 = (a+b)a^*b+\epsilon$$

where ϵ is epsilon symbol

Can we say that these regular expressions represent the same language? If yes derive three strings from both regular expressions. If not, then show three strings that can be derived from one regular expression but cannot be derived from the other regular expression. Show your derivations from regular expressions.