

National University of Computer & Emerging Sciences, Karachi Spring-2019 Department of Computer Science



Quiz # 1 6th January 2019, 11:00 AM – 12:00 PM

Course Code: CS302	Course Name: Theory of Automata	
Instructor Name / Names: Zeshan Khan		
Student Roll No: Solution		Section: C

Instructions:

- Return the question paper.
- In case of any ambiguity, you may make assumption. But your assumption should not contradict any statement in the question paper.

Time: 10 minutes. Max Marks: 1

A) Write Regular expression for the language, of all those string that have even length and do not contains "aa" in it, over alphabet set $\Sigma = \{a, b\}$.

$$(ab + bb)^*(ba + bb)^* + ((ab + bb)^* + (ba + bb)^* + bb)^*$$

B) Draw a Deterministic Finite State Automata (DFA) for the language, of all those string that do not ends at a double letter (i.e. aa,bb), over alphabet set $\Sigma = \{a, b\}$.

