

<b>Course Code:</b> CS302	<b>Course Name:</b> Theory of Automata
<b>Instructor Name / Names:</b> Zeshan Khan	
<b>Student Roll No:</b> Solution	<b>Section:</b> 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  $\Sigma = \{a, b\}$ .

