

**CT Group of Institutions, Shahpur****CTIEMT****Assignment Sheet No: 01**

<b>Course:</b>	<b>CSE</b>	<b>Semester:</b>	<b>5<sup>th</sup></b>
<b>Name of Subject:</b>	<b>FLAT</b>	<b>Subject Code:</b>	<b>BTCS 502-18</b>
<b>Name of Topic:</b>	Finite Automata	<b>Maximum Marks:</b>	<b>10</b>
<b>Date of Allotment:</b>	3/9/2025	<b>Date of Submission:</b>	9/9/2025

Q1: Construct a DFA that accepts the language

$$L = \{010, 1\} \text{ over the alphabet, } \Sigma = \{0,1\}$$

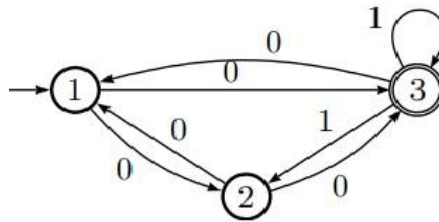
Q2. Construct a NFA accepting the set of strings over  $\{a,b\}$  ending in  $ab$ .

Q3: How NFA is different from DFA explain with examples?

Q4. Convert the following regular expressions to Finite Automata:

1.  $(a+ab)^* + (a+b)^*b$
2.  $(01)^*$
3.  $1(0+1)^*0$

Q5. Convert the following NFAs to DFAs:



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