

CT Group of Institutions, Shahpur

CTIEMT

Assignment Sheet No: 01

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

Q1: Construct a DFA that accepts the language

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

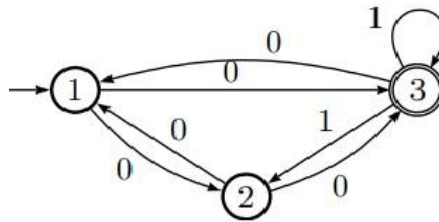
Q2. Construct a NFA accepting the set of strings over $\{a,b\}$ ending in ab.

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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