

CT Group of Institutions, Shahpur

CTIEMT

Assignment Sheet No: 01

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| 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, $\Sigma = \{0,1\}$

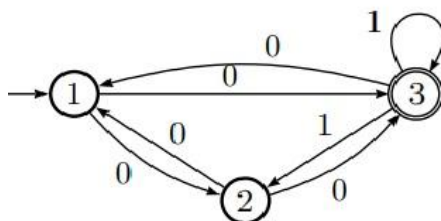
Q2. Construct a NFA accepting the set of strings over $\{a,b\}$ ending in ab.

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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| Prepared by: | Verified by: |
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| Signature with Date: | Signature with Date: |