

Course Name: (1) : Selective Course (2) (Compilers)

Program: Computer and Control Eng. (CCE389) Program

Academic Year: 2022-2023

Level: Third Year

Semester: Second term

Sheet No. (2)

Subject: Compiler Design

Q1: construct DFA for the following strings-

- abb
- aabb
- ababb
- abbabb

Q2 use Thompson's construction to convert regular expression to NFA

1. $(a \mid b)^*a$
2. $1(1^*01^*01^*)^*$
3. $00(01 \mid 10)^*11$
4. $a^*b \mid b a$

Q3: Draw a DFA for the language accepting strings ending with '0011' over input alphabets $\Sigma = \{0, 1\}$

Q4: Draw a DFA for the language accepting strings starting with '101' over input alphabets $\Sigma = \{0, 1\}$

Q5: Convert the following Non-Deterministic Finite Automata (NFA) to Deterministic Finite Automata (DFA)-

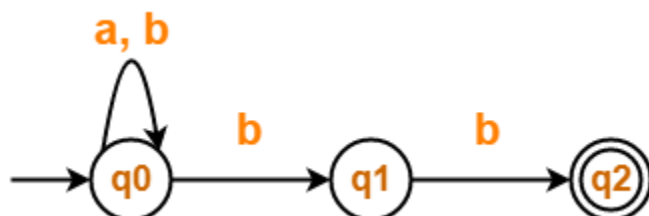
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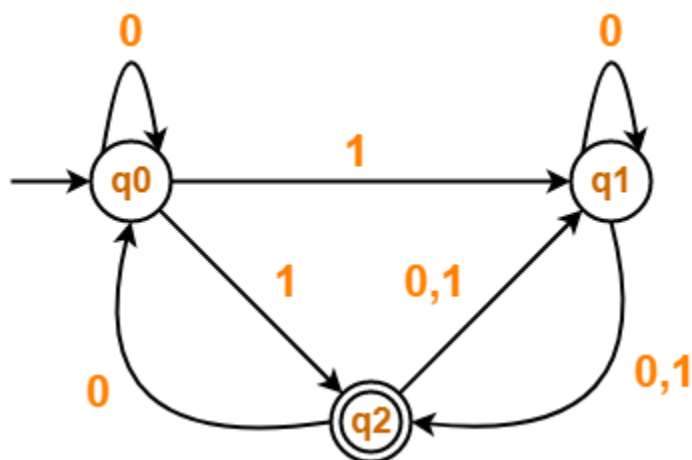
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Q6: Convert the following Non-Deterministic Finite Automata (NFA) to Deterministic Finite Automata (DFA)-



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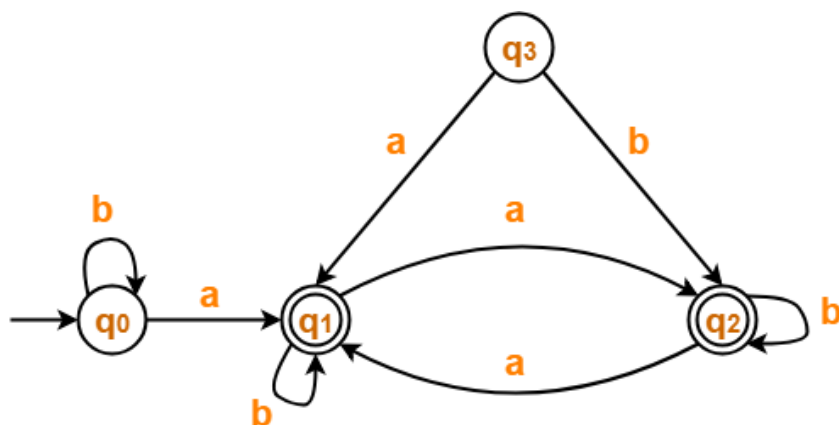
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Q7: Minimize the given DFA-



Q8: Minimize the given DFA-

