

CSCI 3236 Homework #5 Part2

Due date: October 9, 2022 (Sunday), 11:59 pm

1. (10pts)

23. Let M be the nondeterministic finite automaton

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graph LR; q0((q0)) -- a --> q0; q0 -- a --> q1((q1)); q1 -- b --> q1; q1 -- a --> q2(((q2))); q2 -- b --> q1; q2 -- a --> q0;
```

a) Construct the transition table of M .

b) Trace all computations of the string $aaabb$ in M .

Hint: you need to draw the computation tree for string $aaabb$ for problem b), as you learned in class (also in video "chapter5 NFA Lecture").

2. (10pts) Use the construction given in class (also in video "chapter5 More NFA Lecture") to convert the following NFA to equivalent DFA.

