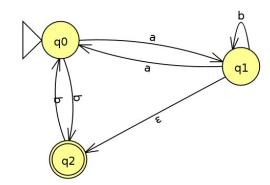Homework #4   Name your document: **CS310_Hmwk4_PUnetID**

page 83

1.16 Use the construction in Theorem 1.39 to convert the following NFA to an equivalent DFA.

1.17

a. Give an NFA recognizing the language (11 ∪ 101 ∪ 010) *

b. Convert this NFA to an equivalent DFA. Give only the portion of the DFA that is reachable from the start state.

1.18 Use the procedure described in Lemma 1.60 to convert the NFA in 1.16 to a regular expression.

1.19 Use the procedure described in Lemma 1.55 to convert the following regular expression into a NFA.

1(11 ∪ 101)*1

1.20 a f h

1.22 In Python, you can write a multi-line comment by marking the first and last line with three ".
For example:

```
"""
This is a comment
on many lines
"""
```

a Give a regular expression that recognizes this comment format. For simplicity: Σ={a,b,",NEWLINE}

b Give a DFA that recognizes this comment format.

1.24 a f

1.28

a.   b(bba)*∪ ba

1.48

For questions that ask for an NFA or DFA:

      Build the machine in JFLAP. Save the machine as an image (PNG). Insert this image into the Google Doc you produce.

      You do not need to email me any JFLAP files.