Quiz 2
Total marks: 10
Duration: 25 minutes

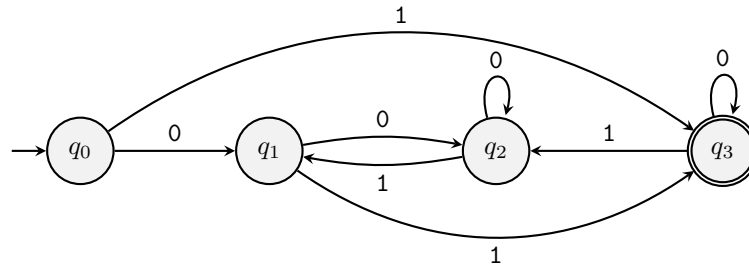Student ID: _____

CSE331
Set 2

You have to use the designated spaces for your answers. No extra pages will be provided.

Problem 1: Converting DFAs to Regular Expressions (7 points)

Convert the following DFA into an equivalent regular expression using the state elimination method. First eliminate q_1, then q_2 and finally q_3. You must show work.

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Problem 2: Regular Expressions (3 points)
Give a regular expression for the following language over $\Sigma = \{0, 1\}$.

$$L = \{w : w = 0^m 1^n 0^k, \text{where } m, n, k \geq 0 \text{ and } m + n + k \text{ is even}\}$$