



Istanbul Technical University
Department of Computer Engineering

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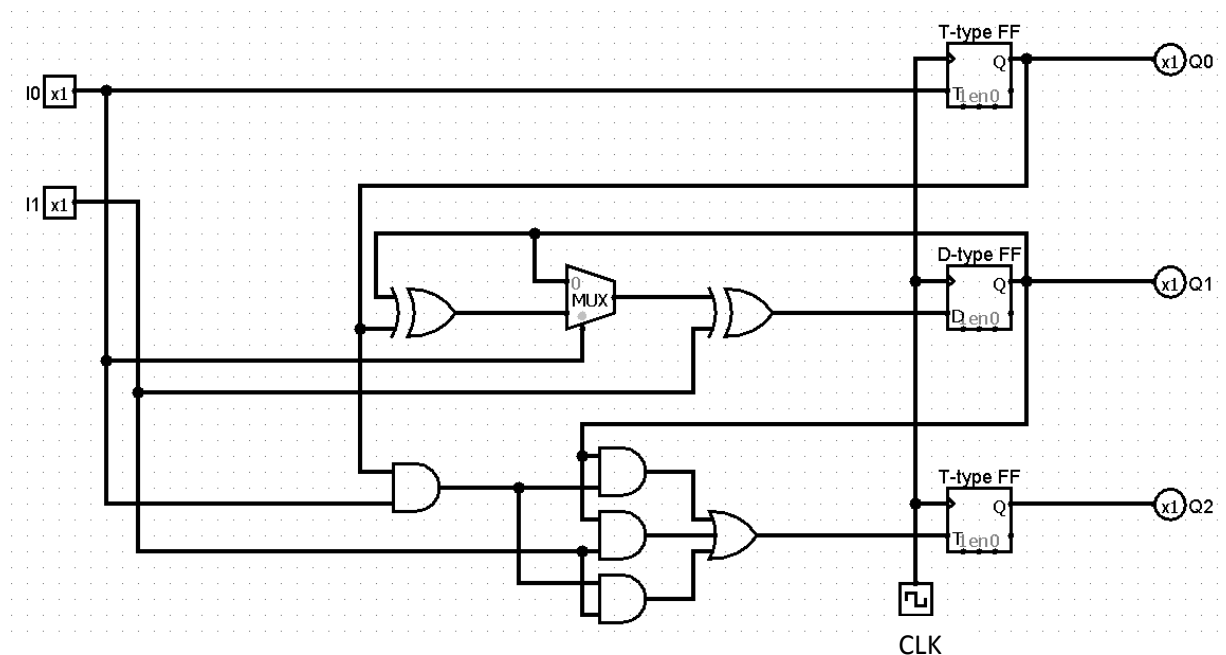
BLG 231E - Digital Circuits Assignment 5

Due Date: 05.12.2013, Thursday, 17.00.

- Please **write neatly**.
- If you are not preparing your homework in a computer, please show complement of a symbol by putting a **dash** over the symbol (e.g. do not use \neg use \bar{x}).
- Plagiarized assignments will be given a negative mark.
- **No late submissions** will be accepted.

Submissions: Please submit your solutions to the Digital Circuits Course Assignment Box at the department secretary's office.

Answer questions for the circuit below. The given circuit has two inputs (I0 and I1) and three outputs (Q0, Q1 and Q2). (*Please note the type of each flip-flop*)



- Determine the input functions of the flip-flops.
- Determine the output functions of the flip-flops.
- Draw the state transition diagram of the circuit.
- Explain the behavior of the circuit with a few sentences.