

**Sequential Review – Part II****Due: Friday, October 4, Start of Class**

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**Latch Design**

Design a latch that uses the combined version of the basic cell, as developed in class, as a storage element. This latch has two inputs, P and U, in addition to a clk signal which acts as a gate. The output should toggle if P and U are the same, hold if P and U are 01, and set if P and U are 10. Create the following items in your design:

- a. Block diagram;
- b. List of inputs and outputs;
- c. Function table;
- d. Excitation table for the combined form of the basic cell;
- e. Truth table;
- f. Equations for the inputs to the basic cell;
- g. Schematic.