Homework3

作者: 罗文杰

专业: 计算机科学与技术

学号: 3210102456

3.38

The memory address is the location of data, and the memory's addressability is the number of bits that one memory location can store.

3.40

(a) 4 locations.

(b) 4 bits.

(c) 0001.

3.53

(a)

cycle0	cycle1	cycle2	cycle3	cycle4	cycle5	cycle6	cycle7
0	1	1	1	1	0	0	0
0	1	1	0	0	1	1	0
0	1	0	1	0	1	0	1

Delaying the clock cycle.

3.61

(a)

S1	S0	X	Z	S1'	S0'
0	0	0	1	0	0
0	0	1	1	0	1
0	1	0	0	1	0
0	1	1	0	0	0
1	0	0	0	0	1
1	0	1	0	1	0
1	1	0	0	0	0
1	1	1	0	0	0

(b)
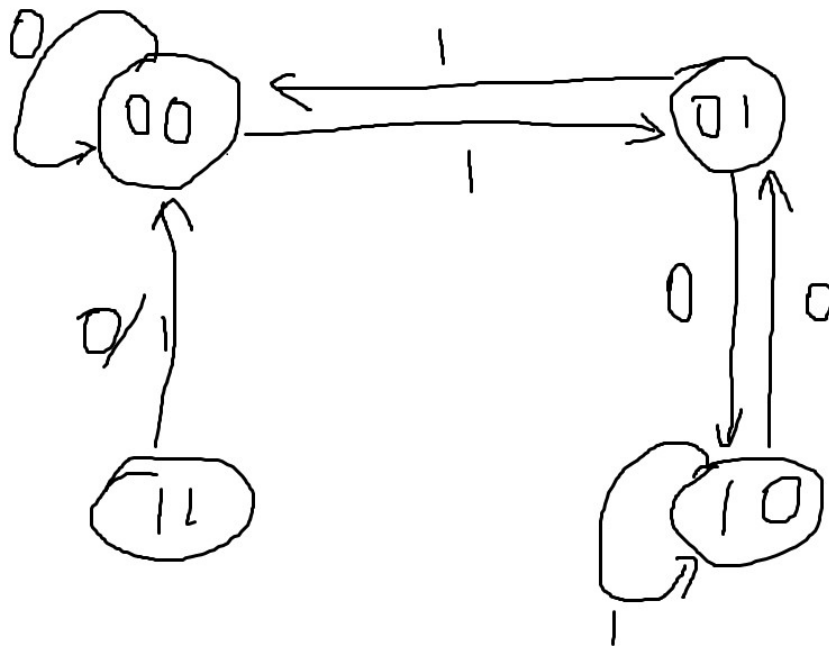
4.1

Memory:storing data.

Processing Unit:process information

Input:take information into the computer

Output:take information out of the computer.

Control Unit:control other parts to make them perform correctly.

4.7

60 opcodes need 6bits, and 32 registers need 5bits, so IMM has 16 bits, the rang of its value is (-32768,32767).