

ICS_HM04_solutions

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1.

same :

the instructions are both used to change the execution order of instructions

difference :

A just jumps to one location of instruction without returning

B will save the next position before jumping so it can return .

2.

1. ADD R2,R3,#0

2. NOT R3,R3

ADD R3,R3,#1

ADD R1,R2,R3

3. ADD R1,R1,#0

4. No. Because each time ,when one of the condition code is set, the another two will be cleared .s

5. AND R2,R2,#0

3.

0001 101 000 000 11000

4.

PC MAR MDR IR PCMUX SEXT

5.

1. calculate 5×16

2. PC x3006

R0 80

R1 0

R2 0

R3 0

R4 0

R5 0

R6 0

R7 0

N 0

Z 1

P 0

3. 85

AND,ADD: 5 BR:6 LD :11

6.

count how many 1s of the content of x3100

7.

0110 001 000 000000

0000 100 000000010