**Test case 1:**

LOAD R1, 2(R0)

LOAD R2, 4(R0)

BNE R1, R2, 8

ADD R4, R1, R3

**Test Case 2:**

LOAD R1, 2(R0)

ADDI R2, R2, 4

STORE R3, 4(R0)

ADDI R2, R2, 4

LOAD R2, 4(R0)

ADDI R2, R2, 4

**Test Case 3:**

ADD R1, R1, R2

NAND R3, R4, R5

DIV R5, R2, R1