```
0.
              addi $t1, $zero, 3
                                         // \$t1 = 3
                                                       // addi ok
1.
              subi $t2, $zero, -2
                                          // $t2 = 2
                                                        // subi ok
2.
              add $t0, $t1, $t2
                                          // $t0 = 5
                                                        // add ok
3.
              sub $t3, $t1, $t2
                                          // $t3 = 1
                                                        // sub ok
4.
              nor $t4, $t0, $t2
                                          // $t4 = -8
                                                        // nor ok, all regs ok
              sw $t1, 3($t2)
                                          // m[5] = 3
5.
                                                       // sw ok
6.
              srl $t2, $t2, 1
                                         // $t2 = 1
                                                        // srl ok
7.
              beq $t2, $t3, label1
                                         // branching will execute // beq ok
8.
              i end
9. label1:
              sll $t3, $t3, 1
                                         // $t3 = 2
                                                        // sll ok
10.
                                          // $t2 = 3
                                                        // lw ok
              lw $t2, 4($t2)
12.
                                          // m[FF] = 3 // push ok
              push $t1
                                         // m[FE] = 3 // push ok
13.
              push $t2
                                          // jump will execute // j ok
14.
              j label2
15. label3:
              or $t0, $t0, $t2
                                                       // or ok
                                          // $t0 = 7
16.
              andi $t2, $t4, 1
                                         // $t2 = 0
                                                        // and ok
17.
              ori $t1, $t1, 5
                                         // \$t1 = 7
                                                        // ori ok
              pop $t2
                                                       // pop ok
18.
                                          // $t2 = 3
              and $t1, $t2, $t4
                                         // \$t1 = 0
                                                        // andi ok
19.
20.
                                          // \$t1 = 3
              pop $t1
                                                       // pop ok
                                         // jump will execute // j ok
21.
             j end
                                         // branching will execute // bneq ok
              bneq $t0, $t2, label3
22. label2:
23. end:
```