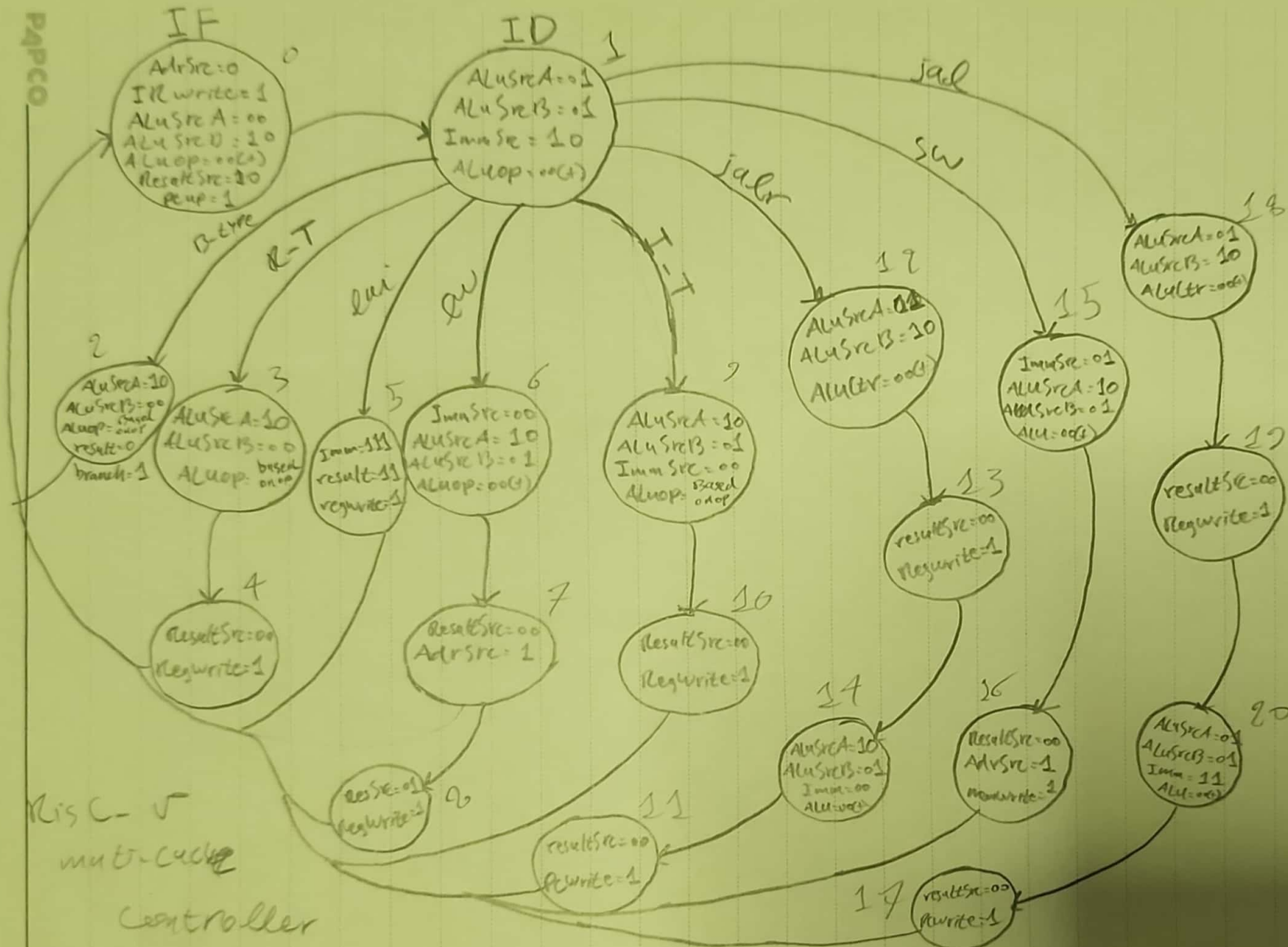


RISC-V
multi-cycle
data path

CAS

810100587 کردن سالی
810100248 سالی سالی



Ris C-5
multi-channel
controller

CA3

کروشن سبزی 810100587 / عام مسایان 810100248

```

max = 0;
for(i=0; i<10; i++)
    if(A[i] > max)
        max = A[i];
return max;

```

810100587 value
810100248 value

RISC-V Assembly Code

```

max: r1
i: r2
10: r3
A[i]: r4

```

```

0 addi r1, r1, 0
1 addi r2, r2, 0
2 addi r3, r3, 10
loop 3 bge r2, r3, end-loop
4 lw r4, A(r2)
5 bge r1, r4, end-if
6 addi r1, r4, 0
end-if 7 addi r2, r2, 1
8 jal r5, loop
end-loop

```

machine code

```

6-1-1-0
6-2-2-0
6-3-3-10
16-2-3-offset(6)
5-4-0-2
16-1-4-offset(2)
6-1-4-0
6-2-2-4
12-5-offset(-5)
2's complement

```