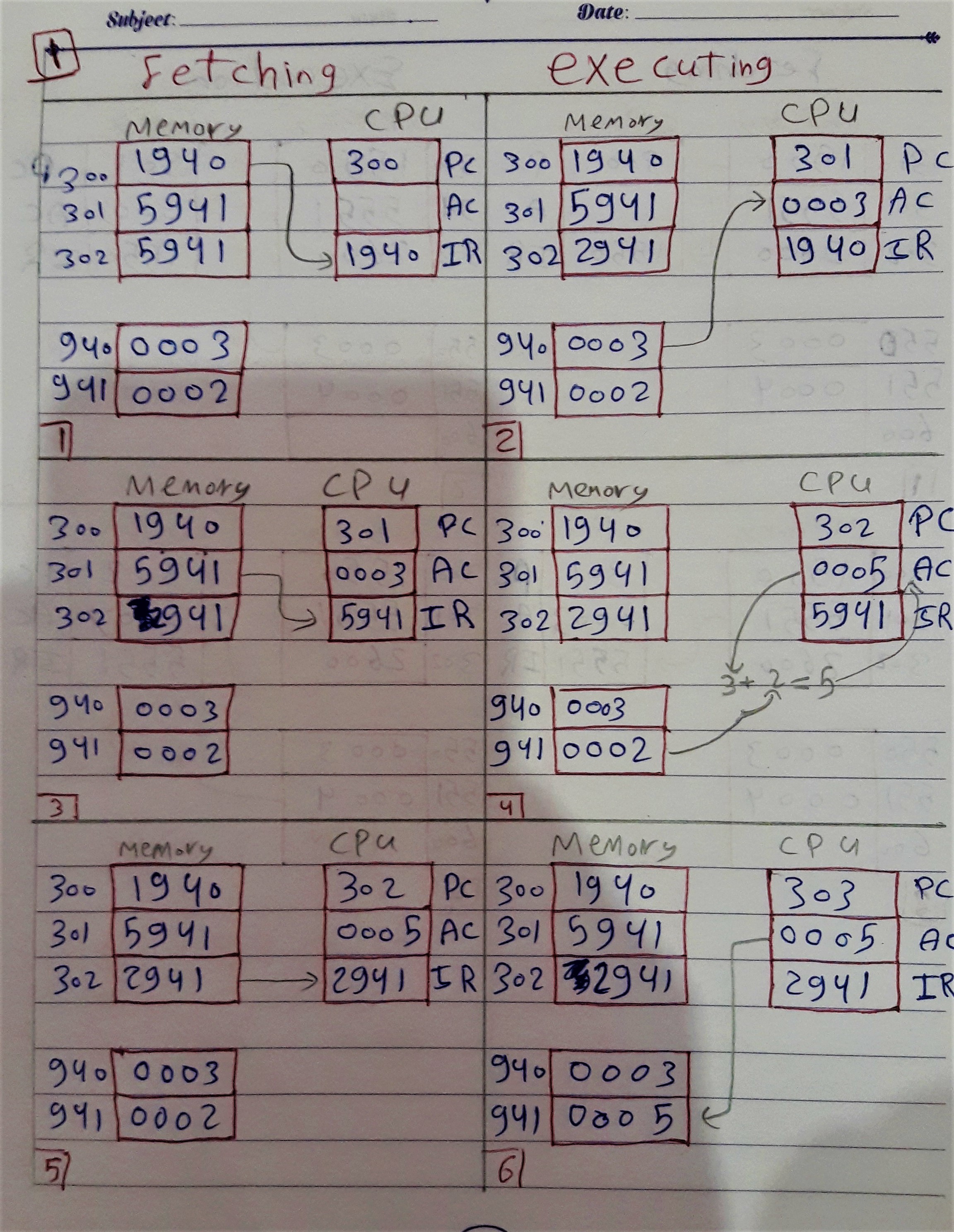
Quiz 1 20/2/2020

In the Hypothetical Machine the contents of memory was as shown. And PC contents is 300. Show the contents of memory and PC , AC , IR after execute three instructions (three fetch cycle and there execute cycle)



**Answer (1)**



Show the contents of PC , AC and IR and memory after the execution of each instruction of the following program on the Hypothetical Machine:

300 LOAD 550

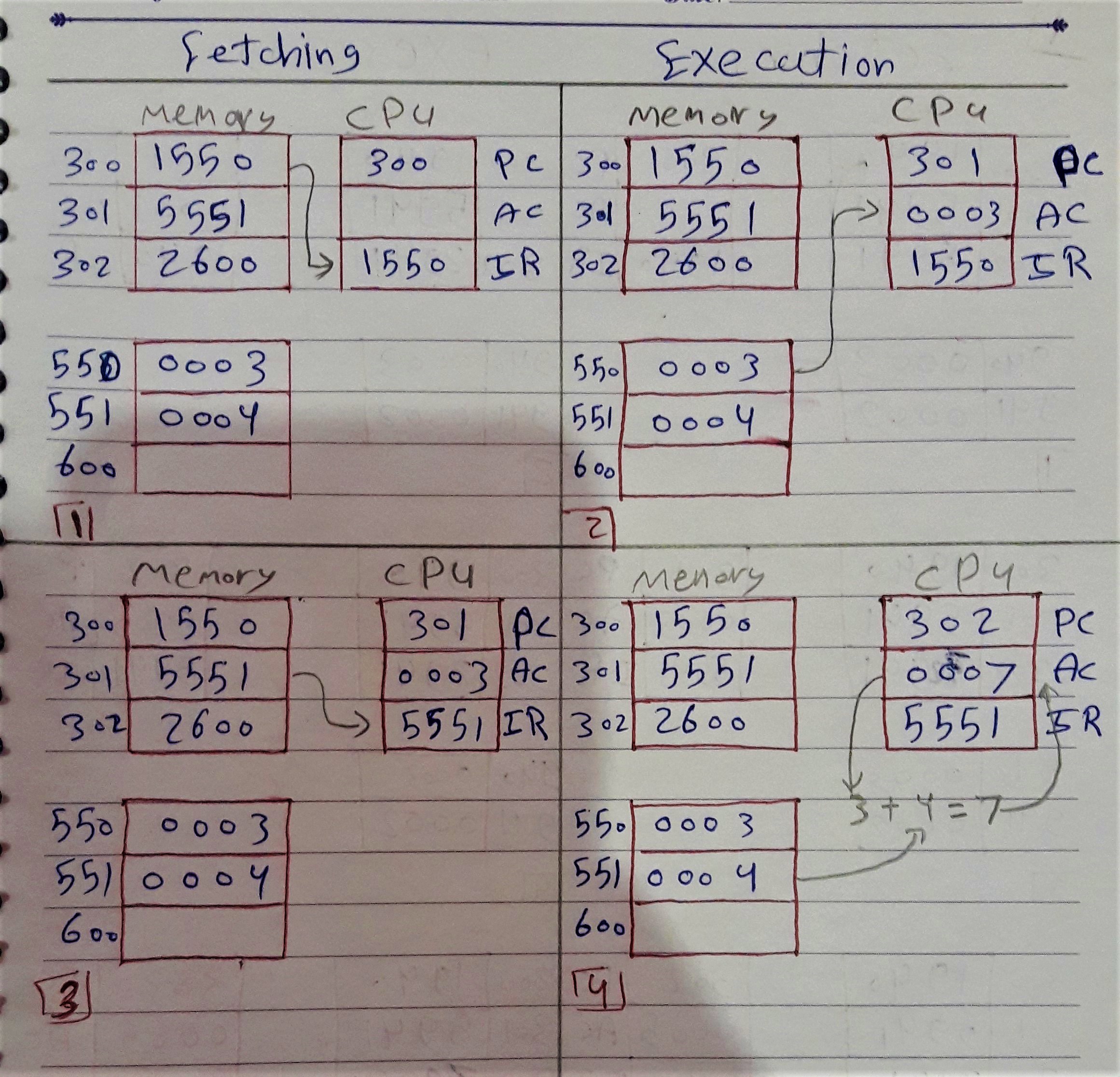
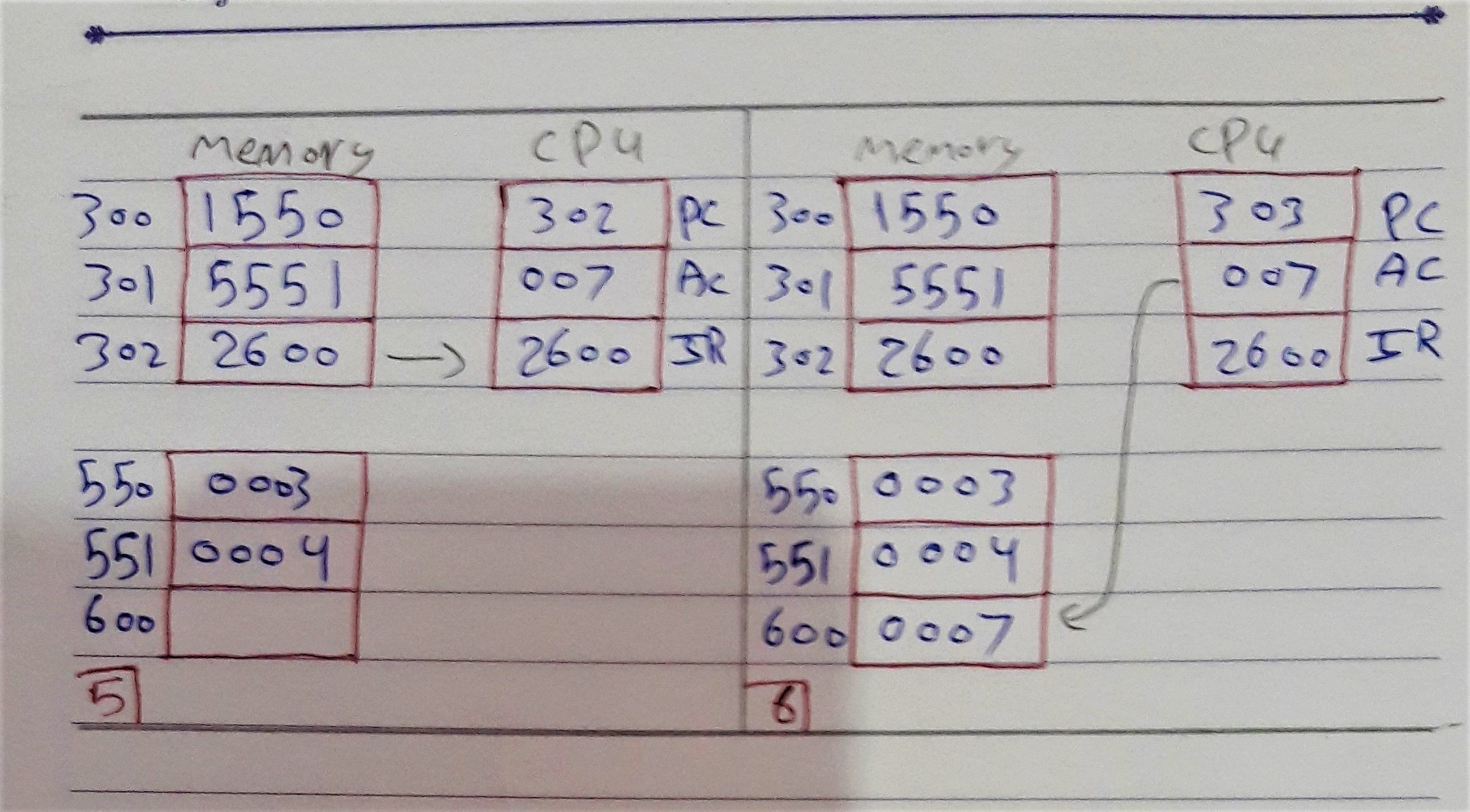
301 ADD 551

302 STORE 600

Where the contents of memory at 550 is 3 and at 551 is 4.

The following figure provide the main characteristics of Hypothetical Machine.

**Answer (2)**





The hypothetical machine also has two I/O instructions:

0011 = load AC from I/O

0111 =store AC to I/O

In these case, the 12-bi address identifies a particular I/O device. Show the program execution for the following program:

1. Load AC from device 5.

2. Add contents of memory location 940.

3. Store AC to device 6.

Assume that the next value retrieved from device 5 is 3 and that location 940 contains a value of 2.

**Answer (3)**

