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3.2) ⇒ PC: Program Counter - keeps track of where the program is in execution.

⇒ MAR: Memory Address Register - stores the mem address of the location where the CPU needs to go to finish the instruction

⇒ MBR: Machine Buffer Register - Holds the value that was retrived from memory to be written to next clock cycle, or holds data that needs to be written to memory next clock cycle.

⇒ IR: Instruction Register - holds the current instruction currently being decoded r executed

3.3) a. C = 0
Z = 0
V = 0
N = 0

b. C = 1
Z = 0
V = 0
N = 1

c. C =
Z =
V =
N =

d. C = 1
Z = 0
V = 0
N = 1

e. C = 1
Z = 0
V = 0
N = 1

f. C = 1
Z = 0
V = 1
N = 0

3.7) a programmer can easily modify or look at R15 since it behaves like a regular register, and this can mess up the entire process of the computer.

3.8) • General registers all behave the same: the operations are all the same on them. On the other hand, specific registers can have functionality tailored to their specific purpose.