

IP, SP, SI, DI \Rightarrow 0 holds the offset address of the next instruction.

Execution Unit

\rightarrow Control system = decodes the instructions

\Rightarrow we write, AND BL, CL
but what has come is opcode
of AND BL, CL \Rightarrow 01110111

\Rightarrow Control system releases the control signal.

So, steps are:

- ① fetched
- ② decoded
- ③ control signals $\overline{RD}/\overline{WR}$ are released
- ④ Execution.

AX, BX, CX, DX.

General Purpose Register.

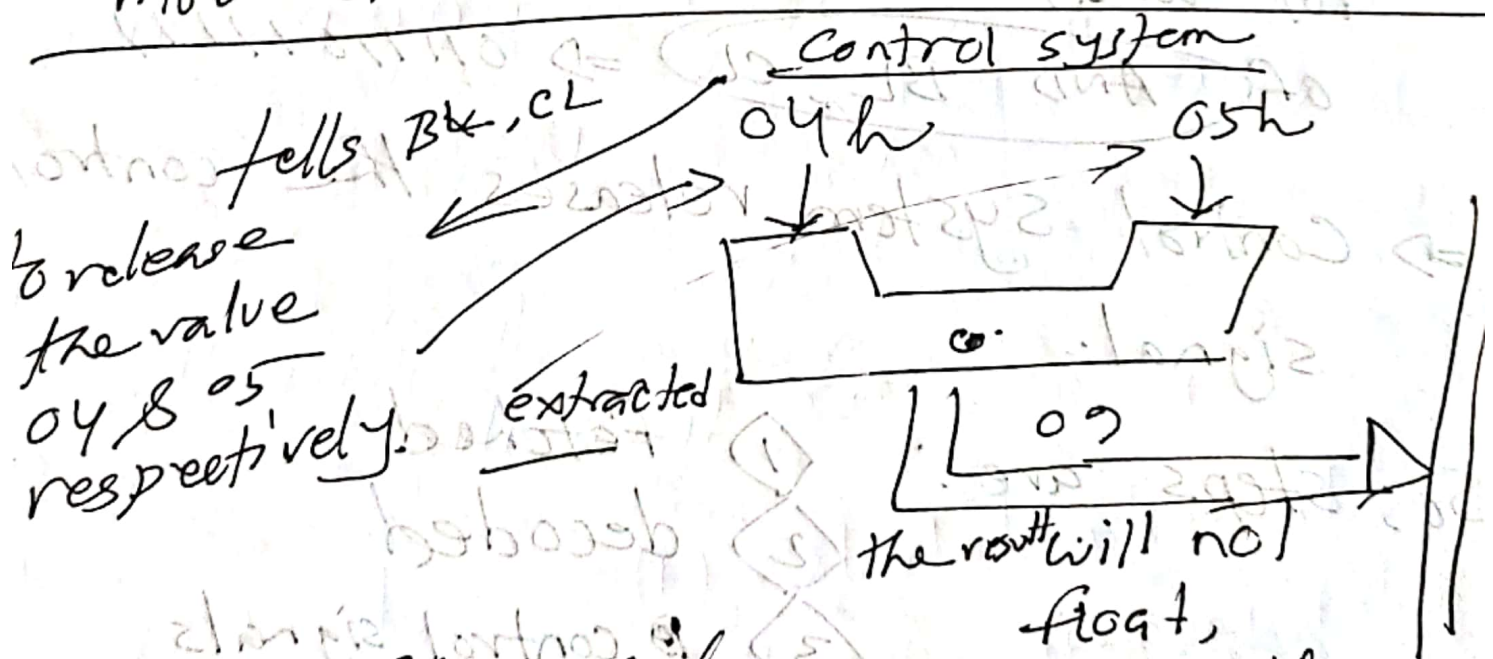
→ are assigned for ~~reg~~ a programmer

X ⇒ means combination of two.

mov CL, 34H ;

mov CH, 12H ;

mov CX, 1234H → single instruction.



mov BL, 04h

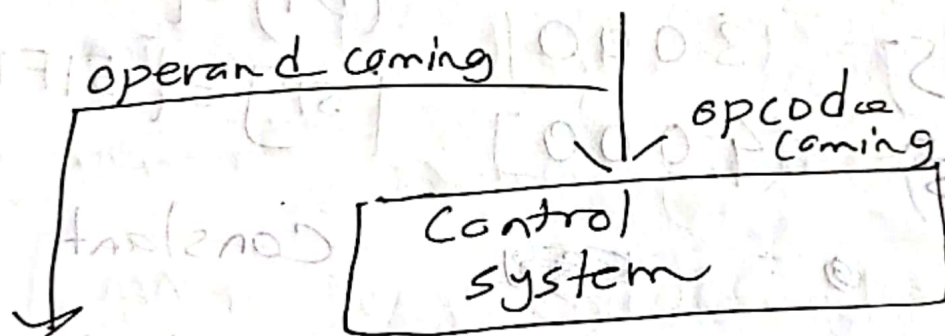
mov CL, 05h

ADD BL, CL

$\text{mov } \text{BL}, 04h$
opcode operand

ADD BL, CL
opcode

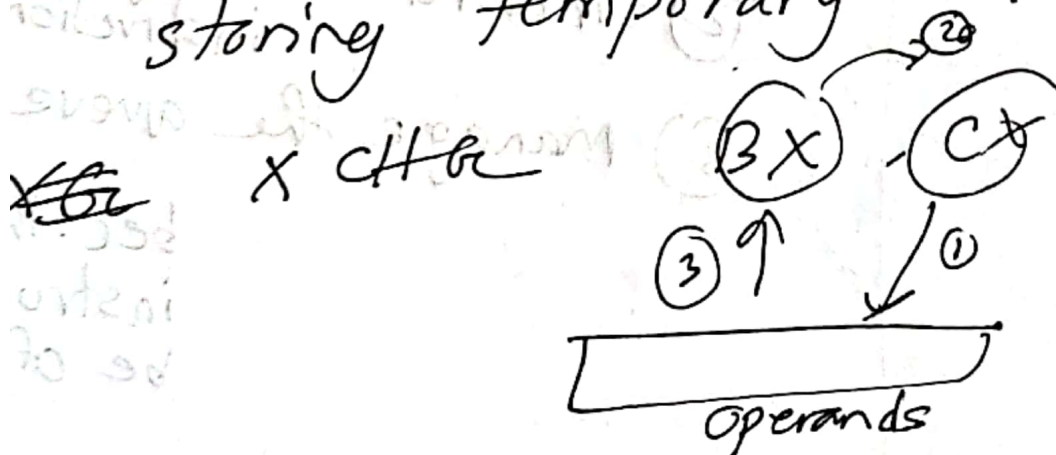
1. We decode the opcode
 we add the operand.



operands \Rightarrow it's a temporary register.

\rightarrow not available to the programmer

\rightarrow used by the up. only; for storing temporary values.



done by
 MP.

Flags → ~~gives the~~

→ has various flags

→ each flag gives some status about the current result.

20/17
Quiz 1
16th March
Sec 2
Quiz 2
15th March

[DS] = [10000] [IP] = [3451h]
[ES] = [20000] [SI] = [45ABh]
[SS] = [3000] [DI] = [61ACh]
[CS] = [4000] [SP] = [51FFh]

Constant 09h.

If the queue's 2Byt is empty, BI will refill the queue.
When it will do it?

BIU does:

- ① Calculate physical address
- ② Transfer memory fetch instructions
- ③ Manage the queue

bec. the instruction is of 6.

