ICW-3

(Initialization Command Word-3)

*) ICW3 is required only if there is more than one 8259 system in the system and if they are cascaded

*) An ICW3 operation loads a slave register in 8259 Programmable Interrupt Controller.

*) **Master**

Each bit in ICW3 is used to specify whether it has a slave 8259 attached to it on its corresponding (Interrupt Request) input.

*) **Slave**

D_0 D_1 D_2 bits of ICW3 are used to assign slave identification code (Slave ID) to 8259.

ICW3 Master Mode

A_0	D_7	D_6	D_5	D_4	D_3	D_2	D_1	D_0
1	S_7	S_6	S_5	S_4	S_3	S_2	S_1	S_0

1 ⇒ Interrupt Request Input has a slave

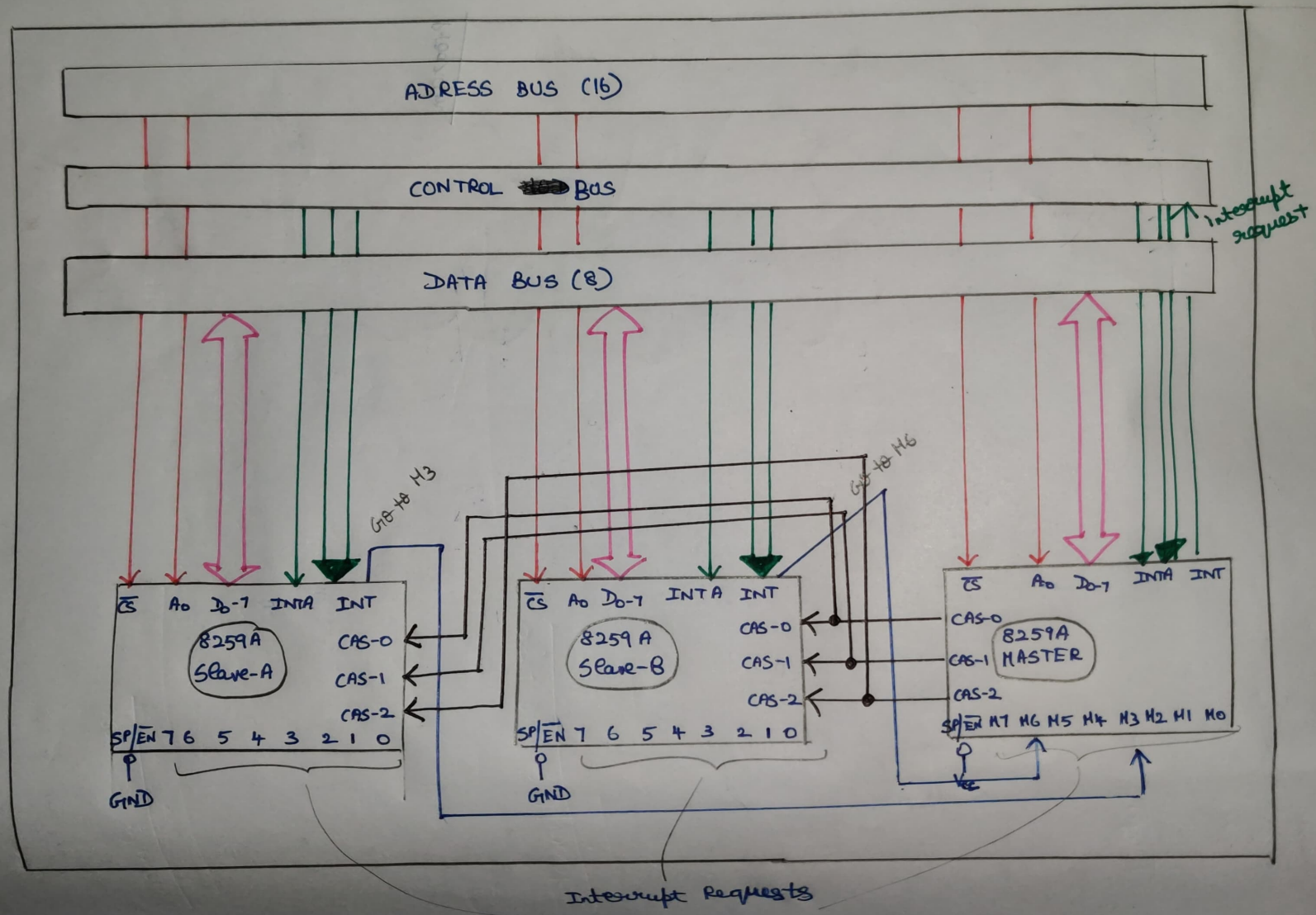
0 ⇒ Interrupt Request does not have slave

ICW3 Slave Mode

1st bit 2nd bit 3rd bit

A_0	D_7	D_6	D_5	D_4	D_3	D_2	D_1	D_0
1	0	0	0	0	0	ID_2	ID_1	ID_0

Slave-id

7	6	5	4	3	2	1	0
-	-	-	-	0	0	0	0
-	-	0	0	-	-	0	0
-	0	-	0	-	0	-	0

8259A Cascade Mode