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Section-2

(Q1) Enlist & explain the interrupt pins in 8085.

Sol^n

Interrupts are the signals generated by external devices to request the microprocessor to perform a task.

Types of interrupt:

(a) Hardware interrupts:

1. 8085 microprocessor have five interrupt pin namely TRAP, RST, RST6.5, RST5.5 & INTR.
2. If the signals on these pin go high, then TRAP will be serviced first followed by RST7.5, RST 6.5, RST 5.5 & INTR.

TRAP:

It is non-maskable interrupt. In order to service this interrupt the signal on TRAP pin must have high level.

RST 7.5:

It is maskable interrupt. It can be enabled and disabled using SIM (set interrupt mask) instruction.

RST6.5:

This can be enabled and disabled using SIM instruction.

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RST 5.5:

- It is maskable interrupt and can be enabled and disabled by SIM instruction. It is high level sensitive.

INTR:

- 8085 save the address of next instruction onto stack & execute received instruction.

b. Software interrupts:

1. In software interrupt, the cause of the interrupt in an execution of the instruction. These are special instruction supported by the microprocessor.
2. The 8085 has eight software interrupts from RST0 to RST7.
3. The vector address can be calculated as shown in Table

Interrupt number x 8 = vector address.

Instruction	Hex code	vector address.
RST 0	C7	0000H
RST 1	CF	0008H
RST 2	D7	0010H
RST 3	DF	0018H
RST 4	E7	0020H
RST 5	EF	0028H
RST 6	F7	0030H
RST 7	FF	0038H