

Q2 Explain interrupts of 8086 microprocessor  
Draw flag register of 8085 microprocessor

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Interrupts of 8086:

1. Hardware interrupt: Microprocessor 8086 can get interrupt from external signal applied to non-maskable interrupt (NMI) input pin or interrupt (INTR) input pin.
2. Divide by zero Interrupt (Type 0): When the quotient from either a DIV or IDIV instruction is too large to fit in result register, 8086 will automatically execute type 0 interrupt.
3. Software interrupt:
  - The 8086 INT instruction can be used to cause the 8086 to do one of the 256 possible interrupt types.
  - The desired interrupt types are specified as a part of the instruction.
  - For example the instruction INT 32 will cause the 8086 to do a type 32 interrupt response.

#### 4. Non-Maskable Interrupt

- As the name suggest interrupt can't be disable by any software instruction.
- This interrupt is activated by low to high transition on 8086  $\overline{INTR}$  input pin.
- In response 8086 will do type 2 interrupt.

#### 5. Maskable Interrupt

- The 8086  $INTR$  input can be used to interrupt a program execution.
- This interrupt can be implemented using two pins  $INTR$  &  $\overline{INTA}$ .

#### Flag register 8085

It is 8-bit register in which five bits carry significant information in form of flag as shown in fig 2.4.1

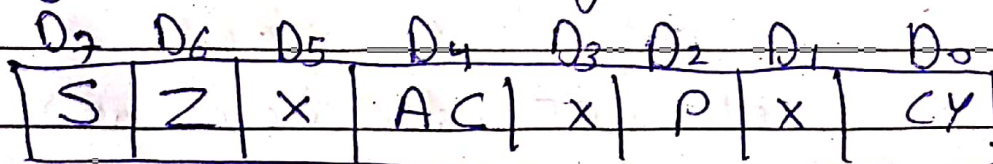


Fig 2.4.1