# SEC-3

(2) Explain the interrupts of 8086 microprocessor. Draw flag register of 8085 microprocessor.

interrupts of 8086 :-

1) One or more IR lines are raised high that set corresponding IRR bit
2) The CPU knowledge with INTA pulse.
3) The ISR bit is reset at the end of the second inta pulse if automatic end of interrupt (AEOI) mode is programmed.
4) INT 30H - INT 30H is shorthand for BIOS interrupt call in an X86 based computer System
5) INT 45H :- INT 45H is shorthand for BIOS interrupt call in an X86 based computer System.

## flag register of 8085 :-

| $D_7$ | $D_6$ | $D_5$ | $D_4$ | $D_3$ | $D_2$ | $D_1$ | $D_0$ |
|---|---|---|---|---|---|---|---|
| S | Z | X | AC | X | P | X | CY |

i) S (Sign flag) :-
$D_7$ is a Sign flag.

ii) Z (zero flag) :-
The zero flag sets, the result operation of ALU is zero and reset flag result is non-zero

iii) AC (Auxiliary flag) :-
$D_3$ to $D_4$ bit is a AC flag.

iv) P (Parity flag) :-
Parity is defined by the number of 1's present in the accumulator

v) Cy (Carry flag) :-
The carry flag is set is an overflow out of 7 bit