

Ans. to Q.no.1

8086 is a 16 bit microprocessor while 8088 is a 8 bit microprocessor. The register sets differ by the size. While both registers have microprocessors have 20 bit address registers but 8088 has 8 bit data registers while 8086 has 16 bit data registers

<u>Register name</u>	<u>8086</u>	<u>8088</u>
AX, BX, CX, DX, Flag etc and others	16 bit	8 bit
Program Counter, Stack Pointer	16 bit	16 bit

So, except program counter and stack point which are address registers, all the other registers are 8 bit in 8088 and 16 bit in 8086.

Ans. to Q. no. Q2

The last 3 digit is 120.

The digits in ~~hex~~ binary is $(1111000)_2$

Storing it in AX register, we get, 0078 h in AX register. ~~10~~

Then we add, ABCD h. which is ~~10~~

$(1010101111001101)_2$

Adding, we get,

$$\begin{array}{rcccc} 0000 & 0000 & 0111 & 1000 \\ 1010 & 1011 & 1100 & 1101 \\ \hline 1010 & 1100 & 0100 & 0101 \end{array}$$

Here, CF = 0 (carry bit absent)

PF = 0 (because odd number of 1s)

AF = 1 (carry from first half to second)

ZF = 0 (the bits are not zero)

SF = 1 (leftmost flag)

OF = ~~0~~ 1 (sign bit changed from 0 to 1)