(3 Hours) **Total Marks: 80**

N.B.: (1) Question No.1 is compulsory.
(2) Attempt any three questions from the remaining five questions.
(3) Make suitable assumptions wherever necessary but justify your assumptions.

Q1 **Solve any Four out of Six**

A	Explain Evolution of computers in detail	05
B	explain following instructions a) DAA b) CMP c) SHR d) AAM e) LOOP	05
C	Give 2's complement of -28 in 16 bit representation	05
D	Give different types of interrupts of 8086.	05
E	Write a note on nano programming	05
F	Differentiate between RISC and CISC machines.	05

Q2

A	Explain the Von Neuman architecture concept in detail.	10
B	Explain Architecture of 8086 in detail	10

Q3

A	Give flowchart for Booths algorithm and solve for -3*-9	10
B	A block set associative Cache consists of total of 128 cache block with 2 blocks per set. Main memory contains 4k blocks with 16 words/block. Show memory mapping and partition address in TAG, SET, WORD bit.	10

Q4

A	Write an assembly language program to count the number of 0's and 1's in a given 8 bit number.	10
B	Differentiate between Program I/O and I/O mapped I/O	10

Q5

A	Explain Flynn's Classification in detail.	10
B	Write a note on Interrupt driven I/O.	10

Q6

A	Explain register organization of CPU in detail.	10
B	Explain cache architecture and consistency policies	10

****