Roll No.:.....

National Institute of Technology, Delhi

Name of the Examination: **B. Tech.**

Branch : Electronics and Communication Engineering Semester : V

Title of the Course : Microprocessor and Microcontroller Course Code : ECB 302

Time: 2 Hours **Maximum Marks: 25**

1. What do you mean by pipelining in an 8086 processor? (2)
2. What is a coprocessor? How is it useful? (2)
3. How 8086 does generates physical address? (2)
4. List the difference between memory mapped I/O & peripheral mapped I/O. (2)
5. Write a program to read the content in the stack register and put the value in BC register pair. (2)
6. If B=03H and C=07H, Write a program to multiply these values using rotate instruction. (2)
7. Write a program to add the Higher nibble and lower nibbles of a given B register and put the result in C register. (For example: if B= 45H then 4+5=09H C=09H). (2)
8. Write a program to read the content in the flag register and store into the memory address 5001. (2)
9. XRA A
   MVI A, 87H
   ADI 79H
   MOV M,A
   Specify the content of the accumulator and the flag register. (2)
10. Draw the timing diagram for the instruction ADD M. Assume all other relevant DETAILS. (3)
11. In the figure shown below specify the memory address range. (4)