

Roll No.:

National Institute of Technology, Delhi

Name of the Examination: B. Tech.

Mid-Semester Examination September, 2019

Branch : EEE

Semester : 5th

Title of the Course : Microprocessor and its applications

Course Code : EEB 303

Time: 2 Hours

Maximum Marks: 25

Note: Attempt any five questions.

-
- Q1. All questions are compulsory. 1x5=5
(a) Give the number of address and data lines in 8086 and 8085 processors?
(b) What is the difference between microprocessor and microcontroller?
(c) Give two examples for each low and high level languages.
(d) Write down the one example for each two and three byte instructions.
(e) What are the different types of data transfer operations?
- Q2(a) Draw the structure of microprocessor with component explanation. 1x2.5=2.5
Q2(b) Write down the steps to writing and execution of an assembly language program. 1x2.5=2.5
- Q3(a). What do you mean by assembler? Explain all types of it. 1x2.5=2.5
Q3(b). Draw the hardware and programming model for 8085. 1x2.5=2.5
- Q4(a). What do you mean by Flags? Explain all types of it. 1x2=2
Q4(b). Calculate the execution times of the memory read machine cycle and the instruction cycle if clock frequency is 4MHz. 1x3=3
- Q5(a). Implement the assembly language program for division (i.e. x/y). 1x3=3
Q5(b). What is the difference between (a) LHLD & SHLD (b) LDAX & STAX? 1x2=2
- Q6(a). Draw the timing diagram for the execution of instruction MVI A, 32H. 1x5=5
OR
What do you mean by instruction cycle? Explain it with clock cycles.
-