National Institute of Technology, Delhi

Name of the Examination: B. Tech.

Mid-Semester Examination October, 2022

Branch : EEE

Semester : 5th

Title of the Course : Microprocessor and its applications

Course Code : EEB 303

Time: 1.5 Hours

Maximum Marks: 25

Note: Attempt any five questions.

Q1. All questions are compulsory.

1x5=5

(a) Write down the difference between ALU and CPU?

(b) What is the difference between machine and assembly language?

(c) What is the type of instruction for MVI B, 4FH and JNZ 2070H.

(d) Write down the one example for each two and three byte instructions.

(e) What do you mean by arithmetic instructions and give one example?

Q2(a) Draw the structure of 8085 microprocessor with all component.

1x2.5=2.5

Q2(b) Write down the meaning of following instructions
ADI 37H, INR M, DCR M, ANA R, CMP R

1x2.5=2.5

Q3(a). What is software and hardware model of 8085? Explain its working also.

1x2.5=2.5

Q3(b). Add the contents of the accumulator 93H and contents of register C – B7H.

1x2.5=2.5

Q4(a). What do you mean by assembler? Explain all types of it.

1x2=2

Q4(b). If the 8085 adds 87H and 79H, specify the contents of the accumulator and the status of the S, Z and CY flags.

1x3=3

Q5(a). Implement the assembly language program for division and multiplication of two numbers.

Q5(b). What is the control and status signals? Explain in table format.

1x3=3

1x2=2

Q6(a). Explain the multiplexed address and data lines in terms of pin orientation.

Q6(b). What do you mean by HOLD and HLDA?

1x3=3

1x2=2