

Dr. Puspawati Kaur

(164) 7/12/2022

National Institute of Technology Hamirpur

Computer Science & Engineering

Microprocessor and Interfacing (CS-212)

B. Tech./ Dual Degree (Computer Science & Engineering), 3rd Semester
Final Exam (December 2022)

Max Marks: 50

Time: 3 Hours

Note: Attempt all the questions.

1. A set of four bytes is stored in consecutive memory locations starting from 8100H. Write 8085 based assembly language program to find the minimum Data (H) are: F2, 05, 42, 35. (5)
2. How Traffic light system can be controlled by a Microprocessor? Explain by using 8085. (5)
3. Explain 1 byte, 2 byte and 3 byte instructions along with suitable examples. (5)
4. What is the difference between minimum and maximum modes of 8086? (5)
5. Give the format of flag register in 8085. Explain each flag with suitable example? (5)
6. Define the different modes of operation of DMA. What are various control signals generated by DMA controller in Master mode? (5)
7. Discuss with suitable examples, various priority modes of programmable interrupt controller 8259. (5)
8. Discuss how vector interrupts of 8085 microprocessor are triggered, enabled and masked. How are the vector locations computed? (5)
9. Write an assembly language program in 8085 to find the largest number in a data array. (5)
10. Assume accumulator contents are AA(H) and CY= 0. (5)
 - (i) Illustrate the accumulator contents after the execution of RLC instruction twice.
 - (ii) Distinguish between SIM and RIM instruction.
 - (iii) Load F2(H) directly in memory location 8000H using indirect addressing.
 - (iv) List four categories of 8085 instructions that manipulate data.
 - (v) Load the accumulator