

B.E. (Full-Time) DEGREE END SEMESTER EXAMINATIONS, NOV / DEC 2012

PRINTING TECHNOLOGY BRANCH

IV SEMESTER - (REGULATIONS 2004)

PT 283 Microprocessor and Applications

Time: 3 hr

Max. Mark: 100

Answer ALL Questions

Part – A (10 x 2 = 20 Mark)

1. What is the function of ALE signal in a microprocessor?
2. Explain the need for stack.
3. How instructions are classified based on its byte size give example for each?
4. Give a single instruction to clear the contents of accumulator in 8085.
5. Explain the instruction CMP M.
6. Explain the instruction PUSH and POP.
7. Mention the different flags of 8085 microprocessor.
8. Specify the crystal frequency required for 8085 microprocessor to operate at 1.5 MHz.
9. What is meant by I/O mapped I/O. List its advantages.
10. Explain a simple input port.

Part –B (5 x 16 = 80 Mark)

11. Draw the block diagram of 8085 architecture and explain the functions of each block.
12. (a) What is an instruction set? Explain the various instructions of 8085 to perform logical operations.
(or)
(b). Explain the various addressing modes 8085 with examples.
13. (a) Write an assembly language programme to multiply two eight bit numbers.
(or)
(b) With a neat sketch explain the timing diagram of instruction MVI A,B2H
14. (a) Draw the architecture 8255 PPI and explain its features. How it is interfaces with 8085 microprocessor using standard I/O.
(or)
(b) Explain a method of converting a digital signal into a analog signal. Write a programme to generate a triangular wave.
15. (a) Draw the block diagram of DMA controller and explain its features.
(or)
(b) Draw the flowchart and write an assembly language programme to control the traffic at junction.