

B.E. (Full -Time) DEGREE END SEMESTER EXAMINATIONS, APRIL / MAY 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 the control unit in a microprocessor?
2. What are the functional differences as memory pointer between programme counter and Stack pointer?
3. How instructions are classified based on its byte size give example for each?
4. Which pins are used during DMA operation?
5. Give a single instruction to clear the contents of accumulator in 8085.
6. Explain the instruction XCHG.
7. Mention the different flags of 8085 microprocessor.
8. What are the different types of interrupts available in 8085 microprocessor?
9. What are the advantages of peripheral I/O?
10. What is interfacing? 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 and various signals.
12. (a) What are the various addressing modes 8085. Explain with suitable examples.
(or)
(b). What is an instruction set? Explain the various instructions of 8085 to perform logical operation.
13. (a) With a neat sketch explain the timing diagram of instruction IN A7H
(or)
(b) Write an assembly language programme to convert a BCD number to Binary number.
14. (a) Draw a hardware to interface individual LEDs to 8085 microprocessor. Write a software to glow one LED at a time and move in cyclic order.
(or)
(b) Draw the architecture 8255 PPI and explain its features and modes of operations.
15. (a) Explain a method of converting a analog signal into a digital signal. Draw the hardware to interface ADC to 8085 and explain.
(or)
(b) Draw the flowchart and write a programme to implement a traffic light operation using 8085 microprocessor.