

**B.E. (Full-Time) DEGREE END SEMESTER EXAMINATIONS, APRIL / MAY 2013**

**PRINTING TECHNOLOGY BRANCH**

**SEMESTER - (REGULATIONS 2004/2002)**

**PT 283 Microprocessors and Applications**

2

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 STA 4260H .
6. Explain the instruction PUSH.
7. Mention the different flags of 8085 microprocessor.
8. Specify the crystal frequency required for 8085 microprocessor to operate at 1.9 MHz.
9. Explain memory mapped I/O.
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 and various signals.
12. (a) What is an instruction set? Explain the various instructions of 8085 to perform Logical operations.  
(or)  
(b). What are the various addressing modes 8085. Explain with suitable 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 IN 65H
14. (a) Draw the architecture 8255 PPI and explain its features. How it is interfaces with 8085 microprocessor using standard I/O.  
(or)  
(b) Draw the hardware to interface individual LEDs to 8085 microprocessor. Write assembly language program to glow one LED at a time and move in cyclic order signal.
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.