



Reg. No. : .....

Name : .....

**Sixth Semester B.Tech. Degree Examination, June 2015  
(2008 Scheme)**

**Branch : ELECTRICAL AND ELECTRONICS  
08.602 : Microprocessors and Applications**

Time : 3 Hours

Max. Marks : 100

**PART – A**

Answer **all** questions.

1. What is meant by multiplexing in 8085 ?
2. Explain the following instructions in 8085.
  - a) LXI H, 2050H
  - b) XTHL
3. Write a delay subroutine for 1 ms. if clock frequency is 3 MHz.
4. Differentiate between maskable and non maskable interrupts.
5. Discuss about SIM and RIM instructions.
6. Differentiate between memory mapped IO scheme and IO mapped IO scheme.
7. List the main features of BSR control words of 8255.
8. Explain about tristate buffer.
9. Discuss the merits of memory segmentation.
10. What are the functions of instruction pointer and instruction queue in 8086 ?



**(10×4=40 Marks)**



## PART – B

Answer **one full** question from **each** Module.

**Module – I**

11. a) Draw and explain internal architecture of intel 8085 microprocessor. 12  
b) Write an ALP to convert two digit BCD number in to its equivalent binary number. 8
12. a) Draw and explain the timing diagram of STA 3050 H. 10  
b) Marks obtained by 100 students are stored in memory location starting from 8000 H. Write an ALP to find number of students passed in exam, minimum pass mark for a pass is 40. 10

**Module – II**

13. a) Draw and explain the internal block diagram of intel 8255 PPI. 12  
b) Interface two seven segment displays through port B of 8255 and display the content of memory location 3000 H. 8
14. a) Explain microprocessor based temperature control system with the help of block diagram. 10  
b) Draw the interfacing circuit for 4K ROM and 512 byte RAM. 4K ROM should be made with 2K × 8 bit ROM chips. 512 × 8 bit is made with four 256 × 4 bit RAM chips. 10

**Module – III**

15. a) Draw and explain the block diagram of intel 8086 microprocessor. 12  
b) Explain different flags used in 8086 microprocessor. 8
16. a) Explain different addressing modes used in intel 8086  $\mu$  p. Give example of each. 12  
b) Differentiate between minimum and maximum modes of operation of 8086 microprocessor. 8
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