

(Library)

S.E. (Etrce) Sem.-IV/Rev

5/6/07.

# Principles of Microprocessor System

Con. 3082-07.

ND-1633

(REVISED COURSE)

( 3 Hours)

[ Total Marks : 100

- N.B.** (1) Question No. 1 is compulsory.  
(2) Attempt any **four** questions from the remaining **five**.  
(3) Assume **suitable** data wherever **required**.

1. Design a computer based system using 8085 with 20
  - (a) 2 K of EPROM (1K × 8)
  - (b) 2K of RAM (1k × 8)
  - (c) 2 input and 2 output ports both interrupt driven
  - (d) Single DMA (8237)
  - (e) CPU works and frequency of 5 MHz (five MHz)
  
2. (a) Explain interrupt of 8085 stating their priority, interrupt and vector locations. Draw a neat diagram showing its vector locations. 10  
(b) Draw and explain The minimum mode of 8085. 10
  
3. (a) Differentiate between I/O mapped I/O and memory mapped I/O 10  
(b) Explain the instructions RIM, SIM EZ and DZ 10
  
4. (a) Draw and explain I/O mode and BSK mode control word of 8255. 10  
(b) Explain software delays of 8085. 10
  
5. (a) Explain the use of ICWs and OCWs in 8259. Explain ZCW<sub>1</sub>, ZCW<sub>2</sub> in detail. 10  
(b) Explain various modes of 8259 timer. 10
  
6. (a) Write a ALP to findout numbers of a negative, 2(r), and positive numbers from given list of numbers. 10  
(b) With reference to DMA controller 8237. Explain DMA read, write and verify cycle. 10