TE - Sem - V - old - Computer.

MP 19/5/15

(OLD COURSE)

QP Code : 3786

(3 Hours) [Total Marks : 100

N. B. : (1) Question 1 is **compulsory**.
(2) Attempt any **four** from remaining.
(3) **Figures** to the **right** indicate **full** marks.

1. Design 8086 based microprocessor system with following specifications. 20
   (i) 8086 microprocessor working at 10 MHz.
   (ii) 32 KB of EPROM using 16 KB devices.
   (ii) 64 KB of SRAM using 16 KB devices.
   Draw the design and give the memory map.

2. (a) Describe different addressing modes of 8085 microprocessor with an example of each. 10
   (b) With neat diagram describe programmer's model of 8085 microporcessor. 10

3. (a) Describe with neat diagram architecture of 8086 microprocessor. 10
   (b) What is Bus arbitration? Describe the different Bus arbitration techniques with diagram. 10

4. (a) Describe with neat diagram 8255 PPI, also give the CWR. 10
   (b) Describe with neat diagram IVT of 8086 microprocessor. 10

5. (a) Write an 8086 assembly language program to transfer a block of 5-16 bit numbers from memory location 10000H to 10002H (source and destination blocks are overlapped) 10
   (b) Describe with neat diagram 8259 PIC. 10

6. (a) Differentiate between :- 10
      (i) I/O mapped I/O and memory mapped I/O
      (ii) SRAM and DRAM
   (b) Describe with neat diagram memory segmentation in 8086, also give merits and demerits of segmentation. 10

7. Write short notes on (any **four**) :- 20
   (a) Features of 8086
   (b) RESET circuit of 8086
   (c) RS-232C interface
   (d) Concept of DMA
   (e) 8288 bus controller
