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B.Tech.(CSE / Electronics & Computer Engg./ IT) (2011 Onwards)
(Sem.-4)

Subject Code : BTCS-404

Max. Marks : 60

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

1) Write briefly :

- Why DMA access is faster method than other methods?
- Give two examples of logic control instructions in 8086.
- What are the second bytes in the instructions IN and OUT? How are they determined?
- Draw the timing diagram of the memory read cycle.
- If the memory chip size is 256×1 bits, how many chips are required to make 1K byte of memory?
- If the clock Frequency is 5Mhz, How much time is required to execute an instruction of 18 T states?
- Give the block diagram of 8086 memory banks.
- How many address lines are necessary to address two Megabytes of memory?
- What is the function of Accumulator?
- List the sequence of events that occurs when the 8085 MPU reads from memory.

SECTION-B

- 2) Write an assembly language program for 16 bit multiplication.
- 3) Show and explain the interfacing of seven segment display with 8085 microprocessor.
- 4) The memory map of a 4096 byte memory chip begins at the location 2000H. Specify the address of the last location on the chip and the number of pages in the chip considering 8085 microprocessor.
- 5) Draw and explain the 8085 microprocessor bus organization.
- 6) Give brief description about Pentium Processors.

SECTION-C

- 7) What do you mean by register? Discuss various registers of 8085 microprocessor?
- 8) Define the different modes of operation of DMA. What are various control signals generated by DMA controller in master mode?
- 9)
 - a) Write detailed note on evolution of microprocessor.
 - b) Give the pin configuration and explain the expanded block diagram of 8255.