Roll No. | | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 09

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

(Sem.–4)

MICROPROCESSOR & ASSEMBLY LANGUAGE PROGRAMMING

Subject Code : BTCS-404

Paper ID : [A1186]

Time : 3 Hrs. Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

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.**

SECTION-A

1) Write briefly :

a) Why DMA access is faster method than other methods?

b) Give two examples of logic control instructions in 8086.

c) What are the second bytes in the instructions IN and OUT? How are they determined?

d) Draw the timing diagram of the memory read cycle.

e) If the memory chip size is 256 × 1 bits, how many chips are required to make IK byte of memory?

f) If the clock Frequency is 5Mhz, How much time is required to execute an instruction of 18 T states?

g) Give the block diagram of 8086 memory banks.

h) How many address lines are necessary to address two Megabytes of memory?

i) What is the function of Accumulator?

j) 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.