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

Total No. of Questions : 09

B.Tech. (CSE / IT / Electronics & Computers) (Sem.–4th)

MICROPROCESSOR & ASSEMBLY LANGUAGE PROGRAMMING

Subject Code : BTCS-404 (2011 Batch)

Paper ID : [A1186]

Time : 3 Hrs. Max. Marks : 60

INSTRUCTION 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 has to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students has to attempt any TWO questions.**

SECTION-A

1. Write short notes on :

a. What is a microprocessor? What is the difference between a microprocessor and a CPU?

b. What is a bus?

c. How many address lines are necessary to address two megabytes (2048K) of memory?

d. What is the function of ALE signal?

e. What do you mean by DMA? What is its advantage?

f. What do you mean by de-multiplexing?

g. Why is the data bus bidirectional?

h. List the sequence of events that occurs when the 8085 MPU reads from memory.

i. What do you mean by instruction cycle?

j. List various flags available in 8085.

SECTION-B

2. Explain the addressing modes of 8085 with suitable examples.

3. Describe interfacing of keyboards.

4. Write instructions to load the hexadecimal number 65H in register C, 92H in the accumulator A. Display the number 65H at PORT0 and 92H at PORT1.

5. Write short notes on Pentium Processors.

6. Describe instruction execution sequence and data flow.

SECTION-C

7. With the help of interfacing circuit and flowchart describe in detail the interfacing of stepper motor with 8085 microprocessor.

8. Describe in detail 8251 I/O Processor.

9. a. Write initialization instructions for the 8255 to setup:

   i. Port A as an output port in Mode 0.

   ii. Port B as an output port in Mode 1 for interrupt I/O.

   iii. Port C_u as an output port in Mode 0.

   b. Assume register B holds 93H and the accumulator holds 15H. Illustrate the results of the instructions ORA B, XRA B, CMA.