BT-4/M-23   **44184**

MICROPROCESSOR INTERFACING AND APPLICATION

PC-IT-208A

Time : Three Hours]   [Maximum Marks : 75

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit.

Unit I

1. Draw neat and clean block diagram of internal architecture of 8085 microprocessor and explain the purpose of each block. Also draw the pin diagram of 8085 microprocessor.

    15

2. (a) Explain memory read and write cycles with the help of timing diagram.   5

    (b) What is instruction cycle ? Explain instruction cycle of 8085.   5

    (c) What are flag registers ? Explain the purpose of flag registers of 8085.   5

Unit II

3. (a) Explain the various rotate instructions of 8085. 7

(b) What are data transfer group of instructions of 8085 ? Explain with suitable examples. **8**

4. (a) Explain different instruction formats of assembly language of 8085. **5**

(b) Explain call and return statements with suitable examples. **5**

(c) How are stack operations performed in 8085 ? Explain with example ? **5**

Unit III

5. (a) What are software interrupts ? Explain each in brief. **7**

(b) What are hardware interrupts in 8085 ? Explain each in brief. Which are level triggered interrupts ? **8**

6. (a) What is the need of interfacing ? Compare memory mapped and peripheral mapped I/O. **8**

(b) Explain input interfacing in 8085 with the help of suitable diagram. **7**

Unit IV

7. (a) Explain the operation of 8255 PPI chip with its internal block schematic. Explain different modes of operations supported by 8255. **9**

(b) With the help of functional block diagram explain the different features available in 8279. 6

8. (a) What is DMA controller ? List different registers in 8237 DMA controller and explain the purpose of each. 7

(b) Write a short note on microprocessor controlled temperature system. 8