MICROPROCESSOR

Full Marks – 70

Pass Marks – 28

Time – Three hours

The figures in the margin indicate full marks
for the questions.

Answer any *five* questions.

1. (a) Define Microprocessor and give a few
applications of it.   4

   (b) Draw the block diagram of 8085 and explain
the function of each block.   10

2. (a) What are the various buses present in 8085
and what are their functions ?   6

   (b) Discuss various types of addressing modes
of Intel 8085 with suitable examples.   8

3. (a) Draw and explain the timing diagram for memory read operation. 6

(b) Explain the various types of instruction groups available in 8085 with example from each group. 8

4. (a) What are the various schemes of data transfer from CPU / memory to I/O devices and vice versa. Discuss interrupt driven data transfer schemes with suitable examples. 8

(b) Differentiate between : (any *one*). 6

(i) Memory mapped I/O and I/O mapped I/O.

(ii) Vectored interrupt and Device polling.

5. (a) Write an assembly language program to add two 8 bit numbers. 6

(b) Write assembly language program to

(i) add two numbers and

(ii) mask of least significant 4 bits of an 8 bit number. 8

6. Explain the function of DMA controller 8257 and PPI 8255. 14

7. Write notes on any *two* : 7×2=14

   (a) 7 segment LED display

   (b) General purpose and special purpose Registers

   (c) 8086 processor

   (d) Pin details of 8085.