Total No. of printed pages = 3

Et-502/Microprocessor/5th Sem/2013/N

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) Draw functional block diagram of 8085 and explain its various components. 8

   (b) What is ALE ? Explain its operation. 2+4=6

2. (a) What are memory mapped I/O and I/O mapped I/O ? Explain. 8

   (b) What are the addressing modes in 8085 microprocessor ? Explain with example. 6

[Turn over

3. (a) Explain the function of any *four* of the following instructions : 4×2=8

(i) CPI

(ii) XCHG

(iii) DAA

(iv) SIM

(v) MVI

(b) What is interrupt ? Explain. 4

(c) Arrange the following according to priority : RST 7.5, RST 6.5, RST 5.5, INTR, TRAP. 2

4. (a) Write assembly level program to transfer a block of data from one section of memory to another section of memory. Assume there are 100 data stored in memory location starting at 2000H. Transfer these data to memory location starting at 4000H. 8

(b) Write an assembly level program to complement a number stored in memory location 2000H. Store the result in memory location 2001H. 6

5. (a) Draw and explain the functional block diagram of 8255. 8

(b) Write an assembly level program to find the product of 05H and 04H. Store the result in memory location 2000H. 6

6. (a) Draw the timing diagram of memory read operation of 8085 and explain. 6

(b) Design a memory interfacing scheme to interface 1K RAM using 256×8 bit RAM IC with 8085. 8

7. Write short notes on any *two* : 2×7=14

(a) Sub-routine

(b) Stack

(c) DMA

(d) Jump instructions of 8085

(e) CALL instructions of 8085.