BTS-IV-04.18-0714 Reg. No. | | | | | | | | | | A

B.Tech. Degree IV Semester Examination April 2018

CS 15-1402 MICROPROCESSORS

(2015 Scheme)

Time: 3 Hours Maximum Marks: 60

PART A

(Answer *ALL* questions)

(10 × 2 = 20)

I. (a) Explain how the address and data is multiplexed in 8085 microprocessor.

(b) What are the functions of BIU in 8085?

(c) Explain the different types of interrupts used in 8085 microprocessor.

(d) Differentiate between I/O mapped I/O and memory mapped I/O techniques.

(e) Describe the addressing modes in 8085 μP.

(f) Explain the different types of registers used in 8085 μP.

(g) Explain the functions of the following signals in 8086 μP.

(i) DLE (ii) DT/R (iii) DEN (iv) BHE.

(h) Explain briefly about DMA operation.

(i) Explain BSR mode of operation of 8255 in detail.

(j) List the features of 8259.

PART B

(4 × 10 = 40)

II. With neat diagram explain the architecture of 8085 μP in detail. (10)

OR

III. (a) With the help of a pin diagram of 8085 μP explain the functional details of pins. (7)

(b) Explain how the control signal is generated in 8085 μP mode of operation. (3)

IV. (a) Write an ALP in 8085 to exchange a block of N bytes of data between source and destination. (7)

(b) Explain various flow control instructions of 8085 μP. (3)

OR

V. (a) Write an ALP to arrange a given series of hexa decimal bytes in ascending order. (5)

(b) Write an ALP to display first n prime numbers. (5)

VI. Explain the maximum and minimum mode in 8086 with necessary block diagram. (10)

OR

VII. (a) How are 8086 instructions classified? Explain in detail with example. (7)

(b) Briefly explain assembler directives in 8086 μP. (3)

VIII. (a) Draw and explain the interface between memory and 8085 μP. (6)

(b) Write short notes on various ports available in 8255. (4)

OR

IX. Explain the different modes of operation of 8254 timer using relevant waveforms. (10)

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