TDC Odd Semester Exam., 2020
held in July, 2021

COMPUTER SCIENCE

(Honours)

(5th Semester)

Course No. : BCSH–502

(Microprocessor and Assembly Language Programming)

Full Marks : 35
Pass Marks : 12

Time : 2 hours

The figures in the margin indicate full marks for the questions

Answer **five** questions, taking **one** from each Unit

UNIT—I

1. *(a)* What are different types of ad- dressing modes in 8085 micro- processor? Explain with examples. 5

(b) What is the function of accumulator? 2

2. *(a)* In 8085 microprocessor, what are the purposes of program counter and stack pointer 16-bit registers? 4

(b) What are different types of instruction format? 3

UNIT—II

3. What do you mean by assembler pseudo-instructions? Explain the working principle of 8086 assembler pseudo-instructions. 7

4. *(a)* Describe the operation an 8086 microprocessor will perform when it executes ADD AX, BX. 4

(b) Describe the differences between the instructions MOV AX, 2437H and MOV AX., [2437 H]. 3

UNIT—III

5. Explain the purpose of the following registers : 7

(a) Point and index registers

(b) Segment registers

(c) Flags

(d) Program invisible registers

6. *(a)* List the sequence of events that occurs when the 8085 microprocessor unit reads from memory. 4

(b) Explain about two conditions of flags of 8085/8086 microprocessor. 3

UNIT—IV

7. Describe the memory mapped I/O and I/O mapped I/O with suitable examples. What are their differences? 7

8. What is memory address decoding? What is memory interfacing? Explain an interfacing circuit using a 3 to 8 decoder to interface a 2732 EPROM memory chip. 7

UNIT—V

9. What do you mean by Direct Memory Access (DMA)? Illustrate the 8237 programmable controller briefly. 7

10. *(a)* Why is DMA data transfer faster than doing the same data transfer with program instructions? 3

(b) Describe the three major tasks needed to get meaningful information from an 8279 programmable keyboard. 4

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