

UNIVERSITY OF MADRAS
B.Sc. DEGREE COURSE IN COMPUTER SCIENCE
SYLLABUS WITH EFFECT FROM 2020-2021

BCE-DSC04

CORE-IV: PRACTICAL - II
COMPUTER ORGANIZATION LAB

I YEAR / II SEM

OBJECTIVES:

- To understand the programming features and operations of assembly language programs using 8085 microprocessor kit or Simulator

OUTCOMES:

- Implement the arithmetic operations in assembly language programming
- Understand the programming logic of 8085 in various aspects

LIST OF EXERCISES:

I : Addition and Subtraction

1. 8 - bit addition
2. 16 - bit addition
3. 8 - bit subtraction
4. BCD subtraction

II : Multiplication and Division

1. 8 - bit multiplication
2. BCD multiplication
3. 8 - bit division

III: Sorting and Searching

1. Searching for an element in an array.
2. Sorting in ascending order.
3. Finding largest and smallest elements from an array
4. Reversing array elements
5. Block move
6. Sorting in descending order

IV: Code Conversion

1. BCD to Hex and Hex to BCD
2. Binary to ASCII and ASCII to binary
3. ASCII to BCD and BCD to ASCII

V: Applications

1. Square of a single byte Hex number
2. Square of a two digit BCD number
3. Square root of a single byte Hex number
4. Square root of a two digit BCD number