B.Tech. (CSE) (IT)   (Sem. – 4)
MICROPROCESSOR AND ASSEMBLY LANGUAGE PROGRAMMING
Subject Code: BTCS-404
M Code: 56607
Date of Examination : 06-01-2023

Time: 3 Hrs.   Max. Marks: 60

INSTRUCTIONS TO CANDIDATES:

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

1. Write answers in brief:

    a) What is the purpose of CALL and RET instructions in 8085 Microprocessor instruction set?

    b) Write atleast four differences between 8085 and 8086 microprocessor.

    c) What is the difference between memory mapped and I/O mapped I/O?

    d) What is the role of instruction queue in 8086 microprocessor?

    e) Explain the concept of direct memory access used by DMA controller.

    f) Define source code and object code.

    g) Write in brief about stack and subroutine.

    h) Write a program to subtract 7B Hand 6A H using ADI instruction.

    i) Discuss the interrupt handling of 68000.

    j) Differentiate LHLD and SHLD instructions with suitable examples.

2. Explain the architecture of 8251 USART in detail.

3. Explain the following 8086 signals:

   LOCK, TEST, READY, INTR and INTA.

4. Explain different addressing modes of 8086 in detail with examples

5. Explain the various interrupts present in 8085 microprocessor. Also mention their priorities.

6. Explain various types of buses used in microprocessor.

SECTION-C

7. Explain the interfacing of 8085 microprocessor with keyboard in detail.

8. What is an instruction? Explain the instruction set of 8085 in detail.

9. Explain the architecture and pin diagram of 8086 Microprocessor in detail.

NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.