

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE, NOVEMBER – 2022**

MICROPROCESSORS AND INTERFACING

[Maximum Marks: 100]

[Time: 3 Hours]

PART-A

[Maximum Marks: 10]

I. (Answer *all* questions in one or two sentences. Each question carries 2 marks)

1. Give any two assembler directives for memory allocation.
2. State the role of instruction pointer register in 8086.
3. List any two string instructions with their syntax.
4. Name any four non vectored interrupts.
5. Write the advanced features of pentium processor. (5 x 2 = 10)

PART-B

[Maximum Marks: 30]

II. (Answer *any five* of the following questions. Each question carries 6 marks)

1. List the features 80386.
2. Write any four addressing modes of 8086.
3. Write an assembly language program to check whether an input no is odd or even.
4. Write interrupt handling sequence of microprocessor.
- 5; Draw and write about 8255 programmable peripheral interface.
6. Write the difference in action of multiplication instruction when the operands are words and bytes
7. Write notes on hyper threading. (5 x 6 = 30)

PART-C

[Maximum Marks: 60]

(Answer *one* full question from each Unit. Each full question carries 15 marks)

UNIT – I

- III. Draw and Explain block diagram of 8086 microprocessor. (15)

OR

IV. Draw pin diagram and Explain about minimum and maximum mode signals of 8086. (15)

UNIT – II

V. (a) Explain the various data transfer instructions of 8086. (7)

(b) Write an assembly language program to convert packed BCD stored in data section to ASCII and display result on screen. (8)

OR

VI. (a) Write an assembly language program to search a character in a string. Give proper messages. (9)

(b) Explain about different branching instructions. (6)

UNIT- III

VII. (a) Write and explain interrupt vector table. (6)

(b) Explain the working of 8259 with a neat sketch. (9)

OR

VIII. (a) Write about different modes of operations of 8255. (7)

(b) Explain the working of keyboard. (8)

UNIT - IV

IX. (a) Explain features of pentium. (7)

(b) Write short notes on:

i) Super scalar architecture ii) MMX technology (8)

OR

X. (a) Explain about different operating modes of 80386. (9)

(b) Write about multicore processing. (6)
