

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE, APRIL - 2025**

MICROPROCESSORS AND INTERFACING

[Maximum marks: 100]

[Time: 3 Hours]

PART – A

Maximum marks: 10

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

1. What is the role of Microprocessor in Micro Computer?
2. Full form of EU and BIU.
3. The instruction moves the contents of the specified source as a register and destination as memory location in 8086.
4. What is the function of the 8259 chip?
5. SSE stands for.

(5 x 2 = 10)

PART – B

Maximum marks: 30

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

1. Explain the concept of minimum mode in the 8086 microprocessor.
2. What are the different addressing modes in 8086?
3. Write three Arithmetic instructions with examples in 8086 assembly language.
4. What is Loop? Explain the steps for creating loop.
5. What is the difference between hardware and software interrupts?
6. Draw the block diagram of Keyboard and display Interface 8279.
7. What are Super scalar Processors?

(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. (a) Draw the Internal Block Diagram of 8086.

(8)

- (b) What are the Features of 8086? (7)

OR

- IV. (a) Draw the Pin Configuration diagram of 8086. (8)
(b) Explain about Execution Unit – Bus Interface Unit. (7)

UNIT - II

- V. (a) To write an ALP for multi byte subtraction. (8)
(b) What are Procedures and macros? (7)

OR

- VI. (a) Program to sort the given numbers in descending order. (8)
(b) Write two 8086 String Instructions and explain. (7)

UNIT - III

- VII. (a) Organisation and Interfacing of PPI (8255) (9)
(b) Explain the priority of interrupts. (6)

OR

- VIII. (a) Explain the interrupts-Programmable Interrupt Controller (8259). (9)
(b) What are the Interrupts of 8086? (6)

UNIT – IV

- IX. (a) Explain pipelining and Stages of pipelining. (9)
(b) What is Hyper-threading? (6)

OR

- X. (a) What is Super scalar Processors? (9)
(b) What is Directory based protocol? (6)
