

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE, APRIL – 2023**

ADVANCED MICROPROCESSORS

[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. State the function of ALE pin in 8086.
2. State the function of Carry Flag.
3. Define assembler.
4. Define the term core in processor.
5. Define PVAM of 80386.

(5 x 2 = 10)

PART-B

[Maximum Marks: 30]

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

1. Explain flag register of 8086.
2. Distinguish between homogeneous and heterogeneous multicore processors.
3. Describe real address mode and virtual 8086 address mode of 80386.
4. List any four main features of Pentium Processor.
5. List any four main features of core i3 processor.
6. List any three data transfer and any three arithmetic instructions.
7. Explain Instructions and Directives.

(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) Explain internal architecture of 8086 with neat diagram. (10)
- (b) Explain 20 bit physical address generation in 8086 with an example. (5)

OR

- IV. (a) Explain register organization of 8086. (9)
(b) Explain functions of HOLD, HLDA, READY pins in 8086. (6)

UNIT – II

- V. (a) Explain Predefined (Dedicated) interrupts. (10)
(b) Write an Assembly Language Program to add two 8 bit numbers. (5)

OR

- VI. (a) Explain any five types of addressing modes of 8086. (10)
(b) Write an assembly language Program to multiply two 8 bit numbers. (5)

UNIT- III

- VII. (a) Explain internal architecture of 80386. (10)
(b) List any five features of 80386. (5)

OR

- VIII. (a) Explain the internal architecture of Pentium Processor. (10)
(b) List any five features of Pentium-Pro processor. (5)

UNIT - IV

- IX. (a) Compare i5 and i7 processors with any five features. (10)
(b) Explain concept of Hyper Threading Technology. (5)

OR

- X. (a) Describe major issues in multicore processing. (9)
(b) List any three technological features of IA processor. (6)
