

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE, NOVEMBER - 2024**

ADVANCED MICROPROCESSORS

[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. State the function of Carry flag in 8086.
2. Define assembler directive.
3. Define paging mechanism in 80386.
4. Define the term core in processor.
5. Define multicore processing.

(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. List the main features of Intel 8086.
3. Explain interrupt vector table.
4. Explain data addressing modes of 8086.
5. List any 6 features of Intel 80386.
6. Explain operating modes of Pentium processor.
7. List main features of core i3 processor.

(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. (8)
- (b) Explain 20 bit physical address generation in 8086 with an example. (7)

OR

- IV.** (a) Explain register organization of 8086. (8)
(b) Explain functions of HOLD, HLDA, READY pins in 8086. (7)

UNIT – II

- V.** (a) Explain any 4 commonly used Data defining assembler directives. (8)
(b) Explain 8086 Data transfer instructions. (7)

OR

- VI.** (a) Explain interrupt response in 8086. (8)
(b) State the sources of interrupts in 8086. (7)

UNIT - III

- VII.** (a) Explain internal architecture of Pentium processor with a neat diagram. (8)
(b) List main features of Pentium pro processor. (7)

OR

- VIII.** (a) Explain internal architecture of 80386 with a neat diagram. (8)
(b) Explain operating modes of 80386. (7)

UNIT – IV

- IX.** (a) Compare i5 and i7 processors with any 4 features. (8)
(b) Explain concept of Hyper Threading Technology. (7)

OR

- X.** (a) Describe major issues in multicore processing. (8)
(b) List technological features of IA processor. (7)
