

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE — APRIL, 2019

MICROPROCESSORS AND INTERFACING

[Time : 3 hours

(Maximum marks : 100)

PART — A

(Maximum marks : 10)

Marks

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

1. Write about maskable interrupt with an example.
2. Write the use of DMA.
3. List the operating modes of 80386.
4. List any two data transfer instructions.
5. Name the general purpose registers of 8086.

(5 × 2 = 10)

PART — B

(Maximum marks : 30)

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

1. Describe the flag register in 8086.
2. Explain the control word of 8255.
3. List the features of Pentium.
4. Explain the logical instructions of 8086.
5. Describe super scalar architecture.
6. List and briefly explain the software interrupts which are dedicated.
7. Write an assembly language program to find the factorial of a number.

(5 × 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 the addressing modes of 8086. 9
 (b) Describe the registers of 8086. 6

OR

- IV (a) Explain the internal architecture of 8086 with a neat block diagram. 9
 (b) Briefly mention about the 8086 family. 6

UNIT — II

- V (a) Write short notes on procedures. 5
 (b) Explain rotate instructions of 8086. 10

OR

- VI (a) Explain arithmetic instructions of 8086. 8
 (b) Write an assembly language program to add two 16 bit numbers. 7

UNIT — III

- VII (a) Explain the programmable interrupt controller. 9
 (b) Describe the priority of interrupts. 6

OR

- VIII (a) Explain the internal block diagram of 8255. 9
 (b) Describe the different types of interrupts of 8086. 6

UNIT — IV

- IX (a) Explain the major issues in multicore processing. 8
 (b) Compare 8086 and 80386. 7

OR

- X (a) Explain the operating modes of 80386. 9
 (b) Explain the concept of hyper threading technology. 6