DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE — APRIL, 2018

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. List four types of segments in 8086.

2. Define Macro.

3. How is an interrupt different from a call ?

4. Write any four features of Pentium processor.

5. List pipeline Hazards.

(5×2 = 10)

PART — B

(Maximum marks : 30)

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

1. List the addressing modes of 8086.

2. What are the advantages of segmentation ?

3. Explain any three string instructions.

4. Write assembly language program to convert a packed BCD byte to two unpacked bytes.

5. Write hardware interrupts of 8086.

6. What are the modes of operation of 8255 ?

7. How does MMX make computation faster for media data ?

(5×6 = 30)

[41]

[P.T.O.

Marks

PART — C

(Maximum marks : 60)

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

UNIT — I

III Explain registers in 8086. 15

OR

IV Describe the two logical units of 8086 with block diagram. 15

UNIT — II

V (a) Write any four arithmetic instruction with examples. 8

(b) Write assembly language program to check whether the given number is odd or even. 7

OR

VI (a) List and explain any eight conditional jump instructions. 8

(b) Write assembly language program to compare two strings. 7

UNIT — III

VII (a) Explain dedicated interrupt types in 8086. 8

(b) How interrupt vectors are stored in 8086. 7

OR

VIII Explain internal block diagram of programmable interrupt controller 8259. 15

UNIT — IV

IX (a) Write the enhanced features of 80386 compared to 8086. 9

(b) Explain real mode operation of 80386. 6

OR

X Describe the importance of multicore processing and major issues associated with it. 15