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Reg. No. ....

Signature ....

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 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.   Define assembler.

2.   Name the different segment registers used in 8086.

3.   List any two string instruction.

4.   Name two hardware interrupts of 8086.

5.   Name a superscalar pipelined processor.

(5×2 = 10).

PART — B

(Maximum marks : 30)

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

1.   Explain the flag register of 8086.

2.   Explain the memory organization of 8086.

3.   Explain the data transfer instructions with example.

4.   Write an assembly language program to subtract two 8 bit numbers.

5.   Explain the steps in processing an interrupt.

6.   Explain the different modes of operation of 8255.

7.   Explain multicore processing.

(5×6 30)

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PART C

(Maximum marks : 60)

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

UNIT — I

III (a) Explain the internal architecture of 8086 with diagram. 9

(b) Explain any three addressing modes of 8086. 6

OR

IV (a) Explain the function of different registers of 8086. 9

(b) Explain the pin details of 8086. 6

UNIT — II

V (a) Explain arithmetic instructions with examples. 8

(b) Write an assembly language program to find factorial of a number. 7

OR

VI (a) Write an assembly language program to find largest number from a series of numbers. 7

(b) Explain shift and rotate instructions. 8

UNIT — III

VII (a) Explain the internal block diagram of 8255. 10

(b) Explain the dedicated interrupt types. 5

OR

VIII (a) Explain the keyboard and display interface. 8

(b) Explain 8259 with block diagram. 7

UNIT — IV

IX (a) Explain the features of Pentium processor. 8

(b) Explain the real mode of operation of 80386. 7

OR

X (a) Explain the features of 80386. 8

(b) Explain the superscalar Architecture. 7

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