TED (15/19) 5131

(Revision-2015/19)

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Reg.No..............................

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DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/ COMMERCIAL PRACTICE, NOVEMBER - 2023

MICROPROCESSOR AND INTERFACING

[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. Define microprocessor.

2. List any two rotate instructions of 8086.

3. Mention the order of priority of interrupts in 8086.

4. Mention the real mode operation of 80386.

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. List the features of 8086.

2. Briefly explain the history of microprocessor.

3. Describe logical instructions of 8086.

4. Write an assembly language program to add two numbers.

5. Explain hardware interrupts of 8086.

6. Draw the internal block diagram of PPI (8255).

7. List the features of 80386.   (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. Explain in detail the architecture of 8086.   (15)

OR

IV. Explain the addressing modes of 8086 with example.   (15)

UNIT-II

V. (a) Explain data transfer instructions of 8086 with example. (8)

(b) Write an assembly language program to multiply two numbers. (7)

OR

VI. (a) Explain conditional branch instructions of 8086. (8)

(b) Explain arithmetic instructions of 8086. (7)

UNIT-III

VII. (a) Explain with block diagram programmable interrupt controller (8259). (10)

(b) Explain dedicated interrupts in 8086. (5)

OR

VIII. Explain with block diagram keyboard and display interface (8279). (15)

UNIT-IV

IX. (a) Explain stages of pipeline in Pentium. (8)

(b) Explain MMX Technology. (7)

OR

X. (a) List the features of Pentium Processor. (5)

(b) Explain major issues in multicore processing. (10)