TED (15/19) – 4151
(Revision – 2015/19)

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Reg.No……………..
Signature…………...

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

MICROPROCESSORS AND INTERFACING

[Maximum Marks : 100]   [Time : 3 hours]

PART – A
(Maximum Marks : 10)

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

1. Write two examples of microprocessors.

2. List two assembler for 8086.

3. Write two string instructions.

4. What is ISR?

5. What is the width of data bus and address bus in Pentium processor?   (5x2=10)

PART – B
(Maximum Marks : 30)

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

1. Write any six features of 8086.

2. Explain the flag register of 8086.

3. Write any three addressing modes of 8086 with example.

4. Draw and explain the interrupt vector table of 8086.

5. Write notes on programmable interrupt controller.

6. Explain the features of Pentium processor.

7. Write short notes on multicore processing.

(5x6=30)

PART – C
(Maximum Marks : 60)
(Answer **one full** question from each unit. Each full question carries 15 marks)

UNIT – I

III. Explain the architecture of 8086 with neat diagram. (15)

OR

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

(b) Write notes on memory segmentation. (6)

UNIT – II

V. Explain shift and rotate instructions of 8086 with example. (15)

OR

VI. (a) Write an assembly language program to find the largest among two numbers. (8)

(b) Explain the branching instructions in 8086. (7)

UNIT –III

VII. (a) Explain the organization of 8255 with diagram. (8)

(b) Explain different operation modes of 8255. (7)

OR

VIII. (a) Write short note on keyboard and display interface. (9)

(b) Explain the hardware interrupts in 8086. (6)

UNIT – IV

IX. (a) Explain the superscalar architecture. (8)

(b) Explain different stages of pipelining. (7)

OR

X. (a) Describe the protected virtual addressing mode of 80386. (8)

(b) Explain the features of MMX technology in Pentium. (7)

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