TED (15) – 4151

(REVISION — 2015)

Reg. No. .....

Signature .....

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2017

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 any four general purpose registers in 8086.
2. Name two units of 8086 processor.
3. Define procedure.
4. Identify the different types of Interrupt.
5. Define hyperthreading. $(5 \times 2 = 10)$

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. Describe the flag register in 8086.
3. Briefly explain arithmetic and data transfer instructions with examples.
4. Write short notes on interrupt mechanism in 8086.
5. Explain the real mode operation of 80386.
6. Explain the features of Pentium.
7. Explain string instructions with example. $(5 \times 6 = 30)$

Marks

PART — C

(Maximum marks : 60)

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

UNIT — I

III (a) Explain the architecture of 8086 processor with a neat diagram. 10

(b) Write short notes on registers in 8086. 5

OR

IV (a) Draw the pin out diagram of 8086. 7

(b) Explain the memory organization of 8086 processor. 8

UNIT — II

V (a) Write an assembly language program to add two 16 bit numbers. 9

(b) Write short notes on arithmetic instructions. 6

OR

VI (a) Write an assembly language program to find whether the given string is Palindrome or not. 10

(b) Briefly describe macros. 5

UNIT — III

VII (a) Explain the organization of PPI with a neat diagram. 9

(b) Describe dedicated interrupts in 8086. 6

OR

VIII (a) Explain different modes of operations of 8255. 9

(b) Discuss about priority of interrupts. 6

UNIT — IV

IX (a) Explain the operating modes of 80386. 10

(b) Explain hyper threading. 5

OR

X (a) Explain pipelining in Pentium processor. 9

(b) Explain the use of snooping and directory based protocol. 6

———————