TED (15) – 5131

(REVISION — 2015)

Reg. No...

Signature ....

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE — APRIL, 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. List any two assemblers for 8086.

2. Which register is frequently used as counter in 8086 ?

3. Define AAA and AAM.

4. Write the priority of interrupts.

5. What is hyperthreading ?
(5×2 = 10)

PART — B

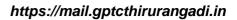(Maximum marks : 30)

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

1. Explain the features of 8086.

2. Explain any three addressing modes in 8086 with examples.

3. How procedures are defined and used in 8086.

4. Explain JMP and LOOP instructions in 8086.

5. Explain the operating modes of 8255.

6. Compare execution of instructions in unpipelined and pipelined processor with diagram.

7. Describe any two major issues in multicore processing.
(5×6 = 30)

[145]

[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 bus interface unit and execution unit of 8086 with neat diagram.   15

Or

IV   (a)   Write about maximum mode configuration of 8086.   8

(b)   How 20-bit physical address is generated in 8086.   7

Unit — II

V   (a)   Explain any four string instructions in 8086.   8

(b)   Write an assembly language program to find the reverse of a string.   7

Or

VI   (a)   List and explain any six arithmetic instructions in 8086.   8

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

Unit — III

VII   (a)   Explain dedicated interrupts in 8086.   8

(b)   Describe interrupt vector table.   7

Or

VIII   (a)   Draw the block diagram of 8279 with keyboard and display.   8

(b)   Explain the functional blocks in 8279.   7

Unit — IV

IX   (a)   Draw the execution unit of Pentium processor and explain.   8

(b)   Explain the features of Pentium processor.   7

Or

X   (a)   Distinguish real mode and protected modes of 80386.   8

(b)   Describe MMX technology.   7