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

A21-03309

Reg.No…….....
Signature. .....

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE – APRIL -2021.

MICROPROCESSORS AND INTERFACING

(Maximum Marks : 75) [Time : 2.15 hours]

PART–A

Marks

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

1. Expand BIU.
2. How many conditional flags and control flags are there in 8086?
3. List any two string instructions in 8086.
4. List the hardware interrupts of 8086.
5. What is the width of data bus and address bus in Pentium Processor? (3x2=6)

PART - B

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

1. List the features of 8086 microprocessor.
2. List and explain any four addressing modes in 8086 with examples.
3. List and explain the shift instructions in 8086.
4. Write an assembly Language Program to display “Hello World”.
5. Draw and explain the Interrupt Vector Table of 8086.
6. List the features of 80386 Processor.
7. Explain the concept of Hyper-threading. [4x6 =24]

PART - C

(Answer **any of the three units** from the following. Each full question carries 15 marks)

UNIT I

III Draw and explain the internal architecture of 8086 microprocessor. (15)

OR

IV (a) Draw and explain the Flag Register of 8086. (9)

(b) Draw the timing diagram and explain the minimum mode memory read cycle of 8086. (6)

UNIT- II

V (a) Explain the rotate instructions in 8086 with examples. (8)

(b) Write an assembly language program to read a character from keyboard and display it. (7)

OR

VI (a) Write an assembly language program to convert a packed BCD to ASCII characters. (10)

(b) List and explain any five branching instructions in 8086. (5)

UNIT- III

VII (a) Explain about any four dedicated interrupts of 8086. (8)

(b) Explain the interrupt response steps of 8086. (7)

OR

VIII (a) Draw and briefly explain the internal block diagram of 8255. (9)

(b) Draw the timing diagram and explain the interrupt acknowledgement cycle of 8086. (6)

UNIT – IV

IX (a) Explain the different types of data hazards in pipelining, with examples. (9)

(b) Explain the features of Pentium processor. (6)

OR

X (a) Discuss about the major issues in multi-core processing and their solutions. (9)

(b) List the features of MMX technology in Pentium. (6)

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