

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

1510230040

Reg.No.....
Signature.....

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE, APRIL - 2024**

MICROPROCESSORS AND INTERFACING

(Maximum Marks:100)

(Time: 3 Hours)

PART - A

(Maximum Mark : 10)

Marks

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

1. Define microprocessor.
2. List any two branch instructions.
3. Define AAA and AAM instructions.
4. Write the order of priority of interrupts in 8086.
5. What are the two types of multicore processors?

(5 x 2 = 10)

PART - B

(Maximum Mark: 30)

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

1. Draw and explain the flag register of 8086.
2. List the features of 8086.
3. List six data transfer instructions.
4. Explain shift and rotate instructions.
5. Write software interrupts of 8086.
6. Draw functional block diagram of 8259 Programmable Interrupt Controller.
7. Explain architecture of super scalar processor with a suitable diagram.

(5 x 6 = 30)

P.T.O

PART – C

(Maximum Mark: 60)

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

UNIT - I

III Explain internal architecture of 8086 with block diagram. (15)

OR

IV Draw and identify the pin configuration of 8086. (15)

UNIT – II

V a) Compare procedure and macros. (10)

b) Write assembly language program to check whether the number is odd or even. (5)

OR

VI a) Explain string instructions with examples. (8)

b) Explain different bit manipulation instructions of 8086. (7)

UNIT – III

VII a) Explain functional blocks of 8255 Programmable Peripheral Interface with internal block diagram. (8)

b) What are the modes of operation of 8255 Programmable Peripheral Interface. (7)

OR

VIII a) Write interrupt response of 8086. (8)

b) Explain interrupt vector table. (7)

UNIT – IV

IX a) Explain real mode and protected mode operations in 80386. (5)

b) Explain snooping protocol and directory based protocol. (10)

OR

X a) Explain the features of Pentium processor. (8)

b) Explain the stages of pipelining. (7)

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