

TED (10) - 3070 (REVISION - 2010)

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## DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2018

## **MICROPROCESSORS**

[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 the segment register used in 8086 processors.
  - 2. Define assembler directive.
  - 3. What is meant by interrupt vector table?
  - 4. Give two features of Pentium processors.
  - 5. What is the use of DF in 8086?

 $(5 \times 2 = 10)$ 

## PART - B

(Maximum marks: 30)

- II Answer any five of the following questions. Each question carries 6 marks.
  - 1. Explain how physical address is calculated in 8086 processors.
  - 2. Explain any three data transfer instructions.
  - 3. Explain the types of interrupts in 8086.
  - 4. Compare RISC and CISC processor.
  - 5. What is hyper threading technology?
  - 6. Explain about memory bank in 8086.
  - 7. Explain the addressing modes of 8086.

 $(5 \times 6 = 30)$ 

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Marks

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(Maximum marks: 60)

		(Maximum marks . 60)	
		(Answer one full question from each unit. Each full question carries 15 marks.)	
		Unit — I	
III	(a)	Draw and explain the functional block diagram of 8086 processor.	9
	(b)	Explain the minimum mode operation of 8086.	6
		OR	
IV	(a)	Explain the different flags used in 8086.	8
	(b)	Explain maximum mode operation of 8086.	7
		Unit — II	
V	(a)	Explain any four looping instructions in 8086.	8
	(b)	Write program to multiply two 8 bit Numbers.	7
		Or	
VI	(a)	Explain any 4 string manipulation instructions.	. 8
	(b)	Write a program to reverse a string.	7
		Unit — III	
VII	(a)	Draw the block diagram of 8255.	7
	(b)	Explain about the operating modes of 8255.	8
		OR	
VIII	(a)	Draw the block diagram of 8257.	7
	(b)	Explain different blocks of 8257.	8
		Unit — IV	
ΙX	(a)	Draw and explain the architecture of Pentium processor.	9
	(b)	Explain the Pentium pipeline stages.	6
		OR	
X	(a)	Explain MMX technology.	6

(b) Explain the instruction set of MMX processor.