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TED(15) - 6041

(REVISION — 2015)

Reg. No	
Ciamatana	

# DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2019

### ADVANCED 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. Define an assembler directive.
  - 2. List any two disadvantages of single core processor.
  - 3. Define hyper threading.
  - 4. How can we configure the 8086 processor in Maximum mode?
  - 5. Explain the term pipelining.

 $(5 \times 2 = 10)$ 

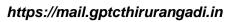
#### PART — B

(Maximum marks: 30)

- II Answer any five of the following questions. Each question carries 6 marks.
  - 1. Explain the paging mechanism in 80386.
  - 2. Discuss the generation of 20 bit physical address in 8086.
  - 3. Draw the block diagram of the internal architecture of Core 2 duo processor.
  - 4. Explain: (a) Immediate addressing mode (b) Register Addressing mode and (c) Direct Addressing modes with examples.
  - 5. Explain the Assembler Directives
    - (a) EQU (b) INCLUDE (c) EVEN
  - 6. Write the features of Pentium Pro processor.
  - 7. Describe the pins

(a) DEN (b) ALE (c) READY

 $(5\times6=30)$ 



2



Marks

# PART — C

(Maximum marks: 60)

		(Answer one full question from each unit. Each full question carries 15 marks.)	
		Unit — I	
III	(a)	Draw the flag register structure of 8086. Explain the functionality of each flag.	8
	(b)	Draw the architecture of 8086.	7
		OR	
IV	(a)	Explain the minimum mode configuration in 8086.	8
	(b)	Explain memory segmentation in 8086.	7
		Unit — II	
V	(a)	Explain the interrupt handling procedure in 8086.	7
	(b)	Explain different types of interrupts in 8086.	8
		$O_{R}$	
VI	(a)	Mention what each of the following instruction performs, with examples if needed.  (i) DAA (ii) ROR (iii) REP (iv) JNE/JNZ (v) CMC (vi) IRET (vii) LOOP	7
-	(b)	Write an 8086 ALP program to multiply two 8 - bit numbers.	8
		Unit — III	
VII	Exp	olain the operating modes of 803886. Draw diagrams where ever needed.  OR	15
VIII	(a)	Draw the architecture of Pentium Processor.	7
	(b)	Explain the features of Pentium Processor.	8
		Unit — IV	
IX	(a)	Specify any four advantages and disadvantages of multi-core technology.	8
	(b)	Compare single and multi-core processors with block diagram.	7
		$O_{\mathbb{R}}$	
X	(a)	List the important technological features of IA processors.	8

(b) Compare core i3, i5 and i7 processors.