TED (15) – 6041

(REVISION — 2015)

Reg. No. .....

Signature .....

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

ADVANCED MICROPROCESSOR

[*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 main features of Intel 8086.
2. Write the types of interrupts in 8086.
3. List any two main features of Pentium processor.
4. Define core.
5. Define MOV and POP instructions of 8086.

(5×2 = 10)

PART — B

(Maximum marks : 30)

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

1. With a neat diagram explain memory segmentation in 8086.
2. Draw a neat diagram of 8086 in minimum mode configuration.
3. Describe assembler directives of 8086. Explain DB, DW and DD directives of 8086.
4. Describe paging mechanism in 80386.
5. Describe the (i) hyper threading technology (ii) core in microprocessors.
6. Distinguish between homogeneous and heterogeneous multicore processors.
7. Describe the operating modes of 80386.

(5×6 = 30)

Marks

PART — C

(Maximum marks : 60)

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

UNIT — I

III (a) With a neat diagram briefly explain the internal architecture of Intel 8086. 10

(b) Define parity flag and auxiliary flag registers in 8086. 5

OR

IV (a) Explain physical address generation in 8086. 5

(b) Describe the general purpose and segment registers of 8086. 10

UNIT — II

V (a) Explain how 8086 responds to interrupts. 8

(b) Write an assembly language program using assembler directives of 8086 to add two 8 bit numbers. 7

OR

VI (a) What are addressing modes of 8086 ? Define any three addressing modes of 8086. 8

(b) Write assembly language programs using assembler directives of 8086 subtract two 8 bit numbers. 7

UNIT — III

VII (a) With a neat diagram briefly explain the internal architecture of Intel 80386. 10

(b) List the operating modes and its features of Pentium processor. 5

OR

VIII (a) List any five features of Intel 80386. 5

(b) Draw the internal architecture of Pentium processor. 10

UNIT — IV

IX (a) What are the limitations of single core processor ? Describe the concept of multicore processing. 7

(b) List the important technological features of IA processors. 8

OR

X (a) Draw the internal architecture of Intel Core2 Duo. 8

(b) Differentiate between Core i3, i5 and i7 processors. 7