N19 - 00947

TED (15) – 5131

(REVISION — 2015)

Reg. No. .....

Signature .....

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

MICROPROCESSOR AND INTERFACING

[*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 out any two features of 8086.
2. What are segment registers ?
3. Write down the syntax of PUSH and POP instruction.
4. Define interrupt.
5. State the term pipelining. (5 × 2 = 10)

PART — B

(Maximum marks : 30)

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

1. Write about the role of microprocessor in microcomputer.
2. Define macro. Give one example.
3. Illustrate with instructions how data is moved from one memory location to Register.
4. Differentiate software and hardware interrupts.
5. Draw and explain Interrupt Vector Table.
6. Compare real mode and protected mode operation of 8086.
7. Explain three types of pipeline hazards. (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 Draw and explain the internal architecture of 8086. 15

OR

IV (a) Explain any four addressing modes of 8086 with an example of each. 8

(b) Explain flag register of 8086. 7

UNIT — II

V (a) Write an 8086 assembly language program to find largest among set of Numbers. 9

(b) Write notes on any three string instructions. 6

OR

VI (a) With syntax explain any four arithmetic instructions. 8

(b) Write the syntax of CMP and SUB instructions and differentiate with example. 7

UNIT — III

VII Draw and explain internal architecture of 8259 Programmable Interrupt Controller. 15

OR

VIII (a) List and explain operating modes of 8255 PPI. 8

(b) Write about scan section of 8279. 7

UNIT — IV

IX (a) Explain the superscalar architecture with suitable diagram. 8

(b) Give notes on Hyper threading. 7

OR

X (a) Discuss the features of Pentium processors. 8

(b) Give issues in Multicore processing. 7
