TED (15) – 4214

(REVISION — 2015)

Reg. No. .....

Signature .....

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2017

MICROCONTROLLER 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 the power saving mode of 8051.
2. Mention the types of jump instructions.
3. Define sub-routine.
4. List ports of 8255.
5. Define step angle. (5×2 = 10)

PART — B

(Maximum marks : 30)

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

1. Write the comparisons of Microprocessor and Microcontroller.
2. Write the features of 8051.
3. Explain the classification of instruction in 8051.
4. Write an ALP to convert BCD to Hexa decimal.
5. Draw the pin diagram of IC 8251.
6. Draw the architecture of 8259.
7. Write the classifications of stepper motor.

(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) Draw and explain the pin details of 8051. 8

(b) Describe the features of 8085. 7

OR

IV Explain the registers of 8085. 15

UNIT — II

V (a) Describe the working of subroutines. 8

(b) Explain the arithmetic instructions. 7

OR

VI (a) Write an ALP to find the largest number in an array. 8

(b) Illustrate the rotate instructions. 7

UNIT — III

VII (a) Explain the display section of I C8279. 8

(b) Draw the pin diagram of IC 8255. 7

OR

VIII (a) Describe the architecture of 8251. 8

(b) Draw and list the pins of 8259. 7

UNIT — IV

IX (a) Describe the interfacing of temperature IC LM 35. 8

(b) Describe the commands in LCD. 7

OR

X (a) Explain the interfacing of Analog to Digital converter. 8

(b) Explain the interfacing of stepper motor. 7

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