TED (15) – 4214

(REVISION — 2015)

Reg. No. .....

Signature .....

FOURTH SEMESTER DIPLOMA EXAMINATION IN INSTRUMENTATION ENGINEERING — APRIL, 2017

MICRO CONTROLLER AND INTERFACING

[*Time* : 3 hours

(Maximum marks : 100)

PART — A

(Maximum marks : 10)

Marks

I Answer the following questions in one or two sentences. Each question carries 2 marks.

1. State the function of Stack in 8051.
2. Mention the use of ALE.
3. Define subroutine.
4. List the modes of 8255.
5. Define step angle. (5×2 = 10)

PART — B

(Maximum marks : 30)

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

1. List any six features of 8051.
2. Explain the interrupts of 8051.
3. Describe the jump instructions.
4. Write an assembly language program to find the product of two hexadecimal numbers. Store the result in 8200 and 8201.
5. Draw the pin Diagram of 8251.
6. Describe the interfacing of D/A converter.
7. Explain the interfacing 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 Explain the registers of 8085. 15

OR

IV (a) Explain the dual functions of Port 3. 8

(b) Describe the RAM organisation of 8051. 7

UNIT — II

V (a) Explain the arithmetic instructions with example. 8

(b) Write an assembly language program to find number of occurrence of a data in an array. 7

OR

VI (a) Explain the look-up table with an example. 8

(b) Describe the serial data transfer in 8051. 7

UNIT — III

VII (a) Illustrate the keyboard section of 8279. 8

(b) Explain the pin Diagram of 8259. 7

OR

VIII (a) Illustrate the scan section of 8279. 5

(b) Draw and explain the pin Diagram of 8255. 10

UNIT — IV

IX (a) Describe the commands in LCD DISPLAY. 8

(b) Explain the interfacing of A/D converter. 7

OR

X (a) Describe the interfacing of DC motor. 8

(b) Explain the interfacing of IC LM 35. 7
