

*
4610

BOARD DIPLOMA EXAMINATION, (C-14)

MARCH /APRIL-2019

DAEIE – FIFTH SEMESTER EXAMINATION

MICRO CONTROLLERS & APPLICATIONS

Time: 3 hours

Max.Marks: 80

PART -A

10x3=30M

Instructions : 1) Answer **all** questions. Each question carries **three** marks
2) Answer should be brief and straight to the point and shall not exceed five simple sentences.

- 1) List any three interrupts of 8051.
 - 2) Draw the block diagram of a microcomputer.
 - 3) State the function of ALE pin of 8051.
 - 4) Define instruction cycle.
 - 5) List any three unconditional jumps.
 - 6) Define machine language.
 - 7) Define subroutine and mention its use.
 - 8) Define the term nesting.
 - 9) State function of data bus buffer of 8255.
 - 10) State function of priority resolver of 8257.
- *
*

*

PART -B

10x5=50M

Instructions : 1) Answer any **five** questions and each question carries **ten** marks.

2) Answer should be comprehensive and criterion for valuation is the content but not the length of the answer.

- 11) Explain the register structure of 8051.
- 12) Explain the logic instructions of 8051 with an example each.
- 13) Classify the 8051 instructions into one byte, two byte and three byte instructions with two examples of each.
- 14) Explain how the information is exchanged between program counter and stack and identify the pointer register when subroutine is called.
- 15) Draw a flow chart and write a program to subtract two 8-bit numbers.
- 16) Write a program to transfer a block of 10 bytes from RAM location starting at 20H to RAM location starting at 30H .
- 17) Explain the interfacing of 8257 with microcontroller.
- 18) Explain the interfacing of traffic light control with 8051.

* * *

*

*