

4610

BOARD DIPLOMA EXAMINATION, (C-14)

JUNE-2019

DAEI – FIFTH SEMESTER EXAMINATION

MICRO CONTROLLER & APPLICATIONS

Time: 3 Hours

Max.Marks: 80

PART-A

10x3=30M

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

- 1) Draw the block diagram of microcomputer.
- 2) List any three features of 8051 microcontroller.
- 3) State the function of a PSW register of 8051 microcontroller.
- 4) State the need for an instruction set.
- 5) Define the terms machine language and assembly language.
- 6) State the function of MOV DPTR DATA (16).
- 7) List any three symbols used in drawing flowcharts.
- 8) State the term debugging a program.
- 9) List any three interfacing devices.
- 10) Draw the interfacing diagram of Programmable Peripheral Interface 8255 with 8051 microcontroller.

PART-B

10X3=30M

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

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

- 11) Explain the functional block diagram of 8051 microcontroller with diagram.
- 12) Explain any two addressing modes of 8051 microcontroller with examples.
- 13) Explain any five logical instructions of 8051 microcontroller with examples .
- 14) Write a program to find that largest number of given 20 numbers using 8051 assembly language.
- 15) Explain the sequence of events takes place when a subroutine is called and excuted.
- 16) Explain PUSH and POP instracutions in programs.
- 17) Explain the functional block diagram of DMA controller 8257 with block diagram.
- 18) Explain stepper motor controller interfacing using 8051 microcontroller with diagram.

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