



C14-EC-405

4438

BOARD DIPLOMA EXAMINATION, (C-14)

MARCH / APRIL - 2019

DECE – IV SEMESTER EXAMINATION

**MICROPROCESSOR & MICROCONTROLLER
PROGRAMMING**

Time : 3 Hours]

[Total Marks : 80

PART - A

3×10=30

Instructions :

- (1) Answer **ALL** questions.
- (2) Each question carries **THREE** marks.
- (3) Answer should be brief and straight to the point and shall not exceed five simple sentences.

- 1 Draw the block diagram of microprocessor.
- 2 Define opcode and operand of an instruction.
- 3 List any six special function registers of 8051.
- 4 Distinguish between machine language and assembly language.
- 5 Give any three examples of logical instructions.
- 6 Distinguish between machine cycle and T-state.
- 7 Define a program counter.
- 8 List the steps involved in writing and trouble shooting a simple program.
- 9 Mention the reasons for popularity of LCDs.
- 10 Draw the pin diagram of DB9 connector and name each pin.

4438]

1

[Contd...

PART - B**10×5=50**

- Instructions :**
- (1) Answer any **FIVE** questions.
 - (2) Each question carries **TEN** marks.
 - (3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

- 11 Draw the functional block diagram of 8085 and explain the function of each block.
 - 12 (a) Explain fetch cycle, execution cycle and instruction cycles.
(b) Explain counters and timers in 8051.
 - 13 Draw the functional block diagram of 8051 and explain the functions of each block.
 - 14 Explain various addressing modes of 8051 with examples.
 - 15 Explain any five data transfer group of instructions of 8051 with examples.
 - 16 Explain the sequence of program when subroutine is called and executed.
 - 17 What is meant by Debugging? Explain different types of debugging techniques.
 - 18 Explain the interfacing of LCD with 8051.
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