6611

BOARD DIPLOMA EXAMINATION

JUNE - 2019

DIPLOMA IN APPLIED ELECTRONICS AND INSTRUMENTATION

MICRO CONTROLLERS & APPLICATIONS

FIFTH SEMESTER EXAMINATION

Time: 3 Hours **Total Marks: 80**

PART - A (3m x 10 = 30m)

Note 1:Answer all questions and each question carries 3 marks

2:Answers should be brief and straight to the point and shall not exceed 5 simple sentences

1. List the timers/counters of 8051
2. List any six Special Function Registers of 8051
3. Distinguish between Microprocessors and Microcontrollers in any three aspects
4. Define the terms machine language and Assembly Language
5. Define fetch cycle and Instruction cycle
6. List the addressing modes of 8051
7. Write the function of POP Instruction along with its format
8. Write a program to add two bytes available at internal memory locations 30H, 31H and store the result at 32H
9. State the need for interfacing
10. List the operating modes of 8255

PART - B (10m x 5 = 50m)

Note 1:Answer any five questions and each carries 10 marks

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

11. List any five Special Function Registers and state their functions
12. a) List any six features of 8051 microcontroller
    b) Write any four differences between Microprocessors and Microcontrollers
13. Explain any four branching instructions along with an example for each
14. Explain the data transfer, logic and branching instructions with examples

15. List and explain unconditional and conditional Return instructions

16. Draw flow charts for the following.
    a. Subtraction of two 8-bit numbers
    b. to find the sum of n-numbers

17. Draw and explain the interfacing diagram of 8255 with micro controller 8051

18. Explain the seven segment display interface using 8051

- xxx -