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C09-EE-405

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BOARD DIPLOMA EXAMINATION, (C-09)

MARCH/APRIL—2021

DEEE - FOURTH SEMESTER EXAMINATION

DIGITAL ELECTONICS AND MICRO CONTROLLERS

Time : 3 hours]

[Total Marks : 80

PART—A

4×5=20

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

1. Convert decimal number 42 into binary number.
2. Draw symbols of AND, OR and NOT gates
3. List different types of registers.
4. Distinguish between RAM and ROM.
5. Mention the features of Micro controllers.
6. Give the functional block diagram of 8051 Micro controller.
7. State the need for an instruction set.
8. Explain the fetch cycle, execution cycle and instruction cycle.
9. Distinguish between machine language and assembly language.
10. What are the various symbols used in drawing flow charts?

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PART—B

15×4=60

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

11. Draw and explain the working of NAND and NOR gates using truth tables.
12. Explain the working of a serial adder with block diagram.
13. Explain the working of JK flip-flop with the help of truth table.
14. Explain different types of memories.
15. Explain the function of various Special Function Registers (SFR's).
16. Give the pin diagram of 8051 micro controller and specify the function of each pin.
17. Explain the various logic instructions used in 8051 Micro controller.
18. Write a program to perform single byte addition.

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