25U130S (Pages: 2) Name: .....

Reg.No: .....

FIRST SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2025

(CBCSS - UG)

CC19UCSC1C01 - COMPUTER FUNDAMENTALS

(Computer Science - Complementary Course)

(2019 to 2023 Admissions - Supplementary)

Time : 2.00 Hours Maximum : 60 Marks

Credit : 2

Part A (Short answer questions)

Answer ***all*** questions. Each question carries 2 marks.

1. Convert (1101110010)2 to its corresponding hexa-decimal number.
2. What are parity bit? How they are used in error detection?
3. Perform (1010110)2-(101010)2 using 2's complement method.
4. What is Boolean algebra? What are the main operators in Boolean algebra?
5. Prove that X.(X+Y) = X.
6. Draw the logic circuit for the expression A' . B + C.
7. What is a Control Unit? Explain the functions of Control unit.
8. What is RAM? List the types of RAM.
9. What are sensors? List various types of sensors.
10. What is a Printer? What are the different types of printers ?
11. What is the use of plotter as an output unit?
12. What is an algorithm? What are its characteristics?

(Ceiling: 20 Marks)

Part B (Short essay questions - Paragraph)

Answer ***all*** questions. Each question carries 5 marks.

13. Write a detailed note on various computer codes and give examples for each.
14. Write the truth table and logic circuit of the following function (AB')(C+D'E')
15. What are combinational circuits? Explain full adder in detail.
16. Differentiate RAM and ROM.

17. What is a magnetic tape ? List its advantages and specifications.

18. Write a detailed note on input devices.Give some examples.

19. Design a flowchart to display 'N' natural numbers.

(Ceiling: 30 Marks)

Part C (Essay questions)

Answer any ***one*** question. The question carries 5 marks.

20. Explain NAND and NOR gates.Implement AND, OR, NOT gates using universal gates only.

21. Explain the basic architecture of a computer system with a neat diagram.

(1 × 10 = 10 Marks)

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