

23U123

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Name:

Reg.No:

FIRST SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2023

(CBCSS - UG)

(Regular/Supplementary/Improvement)

CC19U CSC1 C01 - COMPUTER FUNDAMENTALS

(Computer Science - Complementary Course)

(2019 Admission onwards)

Time : 2.00 Hours

Maximum : 60 Marks

Credit : 2

Part A (Short answer questions)

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

1. What is hexa-decimal number system? Give an example.
2. Convert $(1101110010)_2$ to its corresponding hexa-decimal number.
3. Multiply the Binary numbers 101111 and 110.
4. List any two postulates of boolean algebra with its dual.
5. List any two theorms in Boolean algebra and prove it.
6. Draw the logic circuit for the expression $A' \cdot B + C$
7. List the functions of input unit.
8. What are the different types of optical disks?
9. What are sensors? List various types of sensors.
10. What are the difference between Microphone and digital camera ?
11. What is a printer ? What is the principle behind ink-jet printer ?
12. Write an algothm to find the average of three numbers.

(Ceiling: 20 Marks)

Part B (Short essay questions - Paragraph)

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

13. What is an error ? Explain the purpose of using Parity bits in error control.
14. Express the boolean function $F = A + B'.C$ in SOP form.
15. Explain the implementation of AND,OR,NOT gates byusing NOR gates.
16. Write a detailed note on cache memory.Compare cache memory and registers.

17. What are the differences between SRAM and DRAM?
18. Write a short note on Plotter and its types.
19. Draw the flowchart to find the largest of three numbers.

(Ceiling: 30 Marks)

Part C (Essay questions)

Answer any *one* question. The question carries 10 marks.

20. Explain Half adder and Full adder with circuit design.
21. Explain the architecture of CPU with suitable diagram.

(1 × 10 = 10 Marks)
