

21U124

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Name: .....

Reg.No: .....

**FIRST SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2021**

(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. Convert  $(001101011100)_2$  to its corresponding octal number.
2. What are computer code ? Explain Grey code.
3. Perform  $(58)_{10} - (12)_{10}$ . Verify the results using Binary subtraction.
4. What do you mean by principle of duality? Give any example.
5. List any two theorms in Boolean algebra and prove it.
6. Define the terms SOP and POS.
7. Define the term Output unit. Give any two examples.
8. Explain how cache memory helps in improving the speed of a computer.
9. What are input devices? Give any two examples.
10. What is a Joystick? List its characteristics.
11. What are control devices? Give any two examples for control devices.
12. Write an algothm to find the greatest of two numbers.

**(Ceiling: 20 Marks)**

**Part B** (Short essay questions - Paragraph)

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

13. Write a note on various number systems. Give examples for each.
14. Explain the following logic gates - AND, OR, NOT, XOR, XNOR

15. Explain the implementation of AND,OR,NOT gates byusing NOR gates.
16. Compare hardwired control unit and micro-programmed control unit.
17. Write a note on Optical disk.List the types of Optical disks.
18. Describe various pointing devices in detail.
19. Design a flow chart to display the factorial of a number.

**(Ceiling: 30 Marks)**

**Part C (Essay questions)**

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

20. Write a detailed note on combinational circuits.
21. What is primary memory? What are the different categories and classifications of primary memory? Explain.

**(1 × 10 = 10 Marks)**

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