FIRST SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2022

(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 $(56)_8$ to its corresponding binary number.

2. What are computer code? Explain Grey code.

3. Define the term parity bit. List the types of parities.

4. List any two postulates of boolean algebra with its dual.

5. What is De-morgan's law ? How ill you prove it?

6. What is min term and max term in boolean algebra?

7. What do you mean by Instruction set?

8. What is secondary memory?

9. What is a video digitizer?

10. What are MIDI instruments?

11. What is a monitor?

12. Design a flowchart to check whether a number is odd or even.

(Ceiling: 20 Marks)

Part B (Short essay questions - Paragraph)

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

13. How will you perform the binary subtraction using 1's complement method? Explain the steps with an example.

14. What are logic gates ? Explain any four logic gates with circuit symbol and truth table.

15. What are combinational circuits ? How they differ from sequential circuits ? Explain Half adder in detail.

16. What are the functions of Input, Output and Storage units of a computer system.

17. What is a magnetic disk ? What are the different types of magnetic disk? Explain.

18. What are input devices ? Explain various output devices in details.

19. Design an algorithm to find the sum of 'N' natural numbers.

(Ceiling: 30 Marks)

Part C (Essay questions)

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

20. What are Universal gates? Why they are called so ? Explain with implementation.

21. What is primary memory? What are the different categories and classifications of primary memory? Explain.

(1 × 10 = 10 Marks)

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