## B.Sc DEGREE (CBCS) REGULAR/IMPROVEMENT/REAPPEARANCE EXAMINATIONS, FEBRUARY 2023

## First Semester

## Complementary Course - CA1CMT02 - COMPUTER SCIENCE - COMPUTER FUNDAMENTALS

(Common to B.Sc Chemistry Model III Petrochemicals, B.Sc Mathematics Model I, B.Sc Physics Model III Electronic Equipment Maintenance, B.Sc Statistics Model I, B.Sc Zoology and Industrial Microbiology Model III Double Main) 2017 Admission Onwards

390D6EB6
Time: 3 Hours
Max. Marks : 60

## Part A <br> Answer any ten questions. <br> Each question carries 1 mark.

1. What is byte?
2. Name the type of computer that process both analog and digital data.
3. What is known as the brain of the computer?
4. Write any one type of optical disk.
5. Convert $(4706)_{8}=($ $\qquad$ $)_{10}$
6. Find the decimal equivalent of 11101011
7. What is Boolean algebra?
8. What do you mean by principle of duality in Boolean algebra?
9. The gate that are considering as universal gates are $\qquad$
10. What is a software package?
11. Define machine language.
12. Define process.

## Part B

Answer any six questions.
Each question carries 5 marks.
13. Explain the basic differences between micro,mini and mainframe computers.
14. Compare mouse and trackball.
15. Discuss the importance of memory unit in a computer system.
16. Briefly explain the different coding scheme: BCD, ASCII and EBCDIC.
17. Prove the following rules by perfect induction method.

$$
\begin{aligned}
& 1 \cdot(A+B) \cdot(A \cdot B)=A \cdot B+B \cdot A \\
& 2 \cdot A+A \cdot B=A+B
\end{aligned}
$$

18. Discuss the basic combination of gates. Explain it with the help of truth tables and symbols.
19. Draw the logic circuit diagram:
a) $A \cdot B+\left(A^{\prime} \cdot B^{\prime}\right) \cdot\left(B \cdot C+B^{\prime}\right.$.
C') b)
$(A+B) \cdot(A+C) \cdot\left(A^{\prime}+B^{\prime}\right)$
20. Differentiate System software and application Software.
21. Difference between-Batch processing,multi processing.
$(6 \times 5=30)$

## Part C

Answer any two questions.
Each question carries 10 marks.
22. Explain the generations of computers.
23. Explain in detail about the different types of printers.
24. What is Number System and What are the Different Types of Numbers in Number System?
25. Define operating system. List and explain the features of any 3 types of operating system.
$(2 \times 10=20)$

