K24U 4011

Reg. No. : .....

Name : .....

First Semester B.Sc. Degree (C.B.C.S.S. – OBE-Supplementary/ Improvement) Examination, November 2024
(2019 to 2023 Admission)
COMPLEMENTARY ELECTIVE COURSE IN COMPUTER SCIENCE
1C01CSC : Introduction to Computers and Programming

Time : 3 Hours Max. Marks : 32

PART – A
(Short Answer)

Answer **all** questions. **(5×1=5)**

1. Define the terms "ALU" and "Registers" in the context of computers.
2. Name two components inside a computer cabinet and explain their functions.
3. Differentiate between Retail and OEM software.
4. What is the significance of the CMOS chip in a computer system ?
5. Briefly describe the concept of Floating Point Numbers.

PART – B
(Short Essay)

Answer **any 4** questions. **(4×2=8)**

6. Explain the working principles of 1's complement and 2's complement in binary arithmetic.
7. Discuss the applications of Gray Code in computing.
8. Differentiate between Machine Language and High-level Language.

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9. Describe the basic functions of Expansion Slots in a computer.
10. Explain the concept of Memory Representation in computers.
11. Discuss the characteristics of Open-Source Software.

PART – C
(Essay)

Answer **any 3** questions. **(3×3=9)**

12. Perform the conversion of the decimal number 45 to its binary and hexadecimal equivalents.
13. Discuss the functions of different types of ports and interfaces in a computer.
14. Explain the characteristics of a good algorithm.
15. Describe the types of Number Systems, emphasizing their applications.
16. Illustrate the importance and characteristics of Shareware and Freeware.

PART – D
(Long Essay)

Answer **any 2** questions. **(2×5=10)**

17. Elaborate on the components inside a computer cabinet, such as Motherboard, Ports, and Storage Devices.
18. Discuss the characteristics and applications of Binary Arithmetic and BCD Addition.
19. Explain the basic ideas of Object-Oriented Programming and how it differs from Structured Programming.
20. Compare the working principles of RAM and ROM, emphasizing their roles in a computer system.
