

Roll.No.

23UBICT2004

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN  
(AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)  
Chromepet, Chennai - 600 044.

B.Com.ISM - END SEMESTER EXAMINATIONS - NOVEMBER 2025  
SEMESTER - II

**23UBICT2004 - Object Oriented Programming in C++**

Total Duration : 2 Hrs.30 Mins.

Total Marks : 60

### Section B

Answer any **SIX** questions ( $6 \times 5 = 30$  Marks)

1. Explain the basic concepts of Object-Oriented Programming with suitable examples.
2. Discuss the features and uses of friend functions in C++.
3. Compare normal functions and inline functions in terms of memory and performance.
4. Differentiate between array and pointer with suitable examples.
5. Explain how pointers are declared and used in C++. Give suitable examples.
6. Discuss the concept of polymorphism and differentiate between compile-time and run-time polymorphism.
7. Describe the importance of parameterized constructors in C++.
8. Evaluate the advantages of operator overloading in improving program readability and reusability.

### Section C

Answer any **THREE** questions ( $3 \times 10 = 30$  Marks)

9. Explain the benefits of Object-Oriented Programming. Illustrate with real-world examples showing the importance of abstraction, encapsulation, and inheritance.
10. Write and explain a C++ program demonstrating call by value, call by address, and call by reference. Compare their execution results.
11. Analyse how pointers enhance efficiency when working with objects in C++. Give a real-world example.
12. Write a C++ program to demonstrate function overloading with examples of overloaded functions having different parameter lists.
13. Develop a C++ program that demonstrates operator overloading and inheritance together to manage employee salary calculation.

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