



K. K. Wagh Institute of Engineering Education & Research, Nashik
(An Autonomous Institute From A.Y. 2022-23)

WINTER-2025	
Exam Seat No.:	
Academic Year:2025-2026	Semester:II
Class:FY	Program:B.Tech
Branch Code:FYE	Pattern:2023
Name of Course:Object Oriented Programming	Course Code:2300118F
Max. Marks:60	Duration:2.30 Hrs.

Instructions: Candidates should read carefully the instructions printed on the Question Paper and on the cover page of the Answer Book, which is provided for their use.

1. This question paper contains 02 page(s).
2. Answer to each new question is to be started on a new page.
3. Assume suitable data wherever required, but justify it.
4. Draw the neat labelled diagrams, wherever necessary.
5. The last columns indicates the Course Outcome and level of Blooms Taxonomy of the Question/sub-question.

Marks CO

Question No. 1

- 1a) Explain class, object with the help of sample code in C++. (6) CO1

Question No. 2

- 2a) Explain friend function with help of sample code in C++. (6) CO2

Question No. 3

- 3a) Explain runtime and compile time polymorphism in C++. (8) CO3

OR

- 3b) Explain call by reference and call by value with the help of sample code in C++. (8) CO3

- 3c) Write a C++ program to implement a class Complex which represents the Complex Number data type. Implement the following: (8) CO3

- a. Constructor
- b. Overload operator - (minus) to subtract two complex numbers
- c. Overload operator + (plus) to add two complex numbers

OR

- 3d) Write a C++ program to implement a class student. Implement function overloading to find total of marks of students for academic subjects and sports marks. Write constructor and 3 functions for the same (8) CO3

Question No. 4

- 4a) Explain exception handling in C++. Write all required blocks to implement it in C++. (8) CO4

OR

- 4b) What are types of templates? Explain its types with suitable sample code in C++. (8) CO4

- 4c) Write a C++ program to Create a class for integers operations. Write functions to accept the numbers and do the all arithmetic operations. Use exception handling for division operation. (8) CO4

OR

- 4d) Write a C++ program with a function which can find maximum and minimum of numbers with data types like integer, double, float. Use templates in C++. (8) CO4

Question No. 5

- 5a) Explain role of istream and ostream classes for file handling in C++. Explain seekp() and seekg() functions with suitable code in C++. (8) CO5

OR

- 5b) Explain all error handling functions used during file operations with suitable code syntax in C++. (8) CO5
- 5c) Write C++ Program for writing students information (Name, RollNo, CGPA) to a file and reading the same information. (8) CO5

OR

- 5d) There is a file containing books- Title, Price and Author names. Write a C++ program to search Book of a given. Print its all details. (8) CO5

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