



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

SUMMER-2024	
Exam Seat No.:	
Academic Year:2023-2024	Semester:II
Class:FY	Program:B.Tech
Branch Code:FYE	Pattern:2022
Name of Course:Programming in C++	Course Code:FYE221011
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.

Question No. 1 Attempt following Question

- 1 a) Explain Polymorphism, Inheritance and Object with respect to Object oriented programming (3) CO1
- 1 b) Explain Private, Public, Protected access specifiers (3) CO1

Question No. 2 Attempt following Question

- 2 a) Explain multilevel inheritance with a C++ example. (3) CO1, CO2
- 2 b) What is inheritance? Explain real-time example (3) CO1, CO2

Question No. 3 Attempt following Question

- 3 a) Compare Run-time and Compile-time polymorphism in C++. (4) CO1, CO3

OR

- 3 b) Compare function overloading and function overriding in C++. (4) CO1, CO3

- 3 c) Develop a C++ program for function overloading for perimeter of circle, rectangle, square (6) CO1, CO3

OR

- 3 d)) Develop a C++ program for operator overloading for unary minus operator (6) CO1, CO3

3 e) Explain pure virtual function in C++ (6) CO1, CO3

OR

3 f) Explain pointer concept along with its operators with suitable code. (6) CO1, CO3

Question No. 4 Attempt following Question

4 a) Explain try, catch, throw with suitable sample code in C++. (4) CO1, CO4

OR

4 b) Explain types of templates C++. (4) CO1, CO4

4 c) Develop a C++ program with maximum of two numbers for int, float, double using function template (6) CO1, CO4

OR

4 d) Develop a C++ program to Create a class template to represent array of values. Implement the functions: Initialize array, Multiply values by a scalar value, Display array. (6) CO1, CO4

4 e) Develop a C++ program to Create a class of employees and handle exception for age<18. (6) CO1, CO4

OR

4 f) Develop a C++ program for exception handling for divide by zero error. (6) CO1, CO4

Question No. 5 Attempt following Question

5 a) Develop a C++ program for exception handling for divide by zero error. (4) CO1, CO5

OR

5 b) Explain different file opening modes. (4) CO1, CO5

5 c) Develop a C++ program to create a file with student data with name and class. Read the file data and print the same (6) CO1, CO5

OR

5 d) Develop a C++ program using appropriate objects of classes from fstream.h to print the file contents. (6) CO1, CO5

5 e) Explain error handling functions used during file operations with suitable code in C++. (6) CO1, CO5

OR

5 f) What is file pointer? What are its types? Explain pointer manipulations functions with suitable syntax. (6) CO1, CO5

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX