

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER- VI EXAMINATION – SUMMER 2026****Subject Code:3160922****Date:26-05-2026****Subject Name: Object Oriented Programming****Time: 10:30 AM TO 01:00 PM****Total Marks:70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

		MARKS
Q.1	(a) Explain “for” loop with proper example in C++.	03
	(b) Differentiate between object oriented and procedure-oriented methodology.	04
	(c) What is object-oriented programming? What are the advantages of an object-oriented programming paradigm?	07
Q.2	(a) Explain merits and demerits of inline functions.	03
	(b) Explain the difference between structure and class in C++ with suitable example	04
	(c) Explain basic to class type conversion with appropriate example.	07
	OR	
	(c) Explain the use of C++ operators with example: new and delete.	07
Q.3	(a) Explain friend function with suitable example.	03
	(b) Explain the execution of virtual function to achieve runtime polymorphism.	04
	(c) Write a program in C++ to swap the values of a pair of integers.	07
	OR	
Q.3	(a) Explain static member function with suitable example.	03
	(b) Explain different types of constructors.	04
	(c) What do you mean by <i>call by value</i> and <i>call by reference</i> ? Justify your answer with suitable example.	07
Q.4	(a) Describe the use of "this" pointer with an example.	03
	(b) Explain arrays of objects.	04
	(c) Write a C++ program that overloads + operator to add two complex numbers.	07
	OR	
Q.4	(a) When do we use the protected visibility specifier to a class member?	03
	(b) Enlist the rules for overloading operators.	04
	(c) Explain various forms of inheritance with suitable diagrams and example of each.	07
Q.5	(a) Describe the syntax and use of set() function with suitable example.	03
	(b) Describe different ways to open file with suitable example.	04
	(c) Explain different stream classes for console I/O operations in C++.	07
	OR	
Q.5	(a) Describe the various approaches by which we can detect the end of file condition.	03
	(b) What is STL? How is it different from the C++ Standard library?	04
	(c) Explain Exception Handling Mechanism. Write a program that demonstrates use of multiple catch.	07
