

Enrollment No./Seat No.:

GUJARAT TECHNOLOGICAL UNIVERSITY
M.SC INTEGRATED - SEMESTER - II EXAMINATION - WINTER 2025

Subject Code: 1320504

Date: 01-12-2025

Subject Name: Object oriented Programming in C++

Time: 02:30 PM TO 05:00 PM

Total Marks: 70

Instructions

- 1. Attempt all questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**
- 4. Use of simple calculators and non-programmable scientific calculators are permitted.**

	Marks
Q.1 (a) Explain different data types of C++.	03
(b) Explain the basic principle of object oriented programming.	04
(c) What is Polymorphism? Explain function overloading with example.	07
Q.2 (a) List the applications of OOP.	03
(b) Explain STL components.	04
(c) Write a program to find a number is even or not using conditional operator.	07
OR	
(c) What is Constructor? Explain its type with example.	07
Q.3 (a) Explain the concept of class.	03
(b) Give the difference between call by value and call by reference.	04
(c) What is destructor? Explain with example?	07
OR	
(a) Explain the use of scope resolution operator with example.	03
(b) Explain the Base and Derived classes.	04
(c) Explain class to class type conversion with proper example.	07
Q.4 (a) Difference between procedural oriented programming languages (POP) and object oriented programming (OOP).	03
(b) Explain the concept of Data abstraction.	04
(c) Write a program for factorial of given number	07
OR	
(a) Explain user defined exception.	03
(b) Explain manipulators in C++.	04

- (c) Write a C++ program to cube and cylinder using concept of function overloading. 07
- Q.5** (a) List out the basic characteristics of OOP. 03
- (b) What are different types of stream classes in C++? 04
- (c) Explain various operators used in C++ with example. 07

OR

- (a) Explain different types of files and file functions. 03
- (b) Explain this pointer with example. 04
- (c) Explain class template with proper example. 07
