



SYNERGY SCHOOL OF ENGINEERING

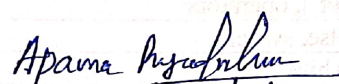
By the side of N.H.-55, Banamaliprasad, Dhenkanal-759001

Discipline: Computer Science & Engineering	Semester:3rd, Winter-2026	Name of the Faculty: Aparna Priyadarshini Email-ID: aparnabarik204@gmail.com
Subject: Programming with C++ (CSPEC201)	No of Days/Week:03	Start Date: 01/07/2026 End Date: 05/11/2026

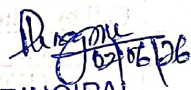
Week	Class	Theory Topics
1st	1st	Introduction to C++, structure of C++ program
	2nd	Data types, variables, constants
	3rd	Input/output ('cin', 'cout'), operators
2nd	1st	Control structures: if, else, switch
	2nd	Loops: while, for, do-while
	3rd	Nested loops, break & continue
3rd	1st	User-defined functions – declaration & definition
	2nd	Call by value, call by reference
	3rd	Recursion
4th	1st	Arrays (1D)
	2nd	Arrays (2D)
	3rd	Passing arrays to functions
5th	1st	Class and Object fundamentals
	2nd	Access specifiers, member functions
	3rd	Constructors and Destructors
6th	1st	Constructor overloading
	2nd	Copy constructor and 'this' pointer
	3rd	Static members
7th	1st	functions
	2nd	Operator overloading – unary
	3rd	Operator overloading – binary
8th	1st	Inheritance basics
	2nd	Single, Multiple, Multilevel inheritance
	3rd	Constructor in inheritance
9th	1st	Function Overloading
	2nd	Virtual functions and polymorphism
	3rd	Abstract classes

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10th	1st	Interfaces
	2nd	File handling: File streams
	3rd	Reading/Writing files
11th	1st	Working with text and binary files
	2nd	Revision
	3rd	Exception handling basics
12th	1st	Try, catch, throw
	2nd	Templates – function and class
	3rd	Standard Template Library (STL) overview
13th	1st	Continue..
	2nd	Problem solving
	3rd	OOPs vs Procedural approach
14th	1st	Practice problems
	2nd	Previous year question paper discussion
	3rd	Advanced problems
15th	1st	Doubt clearing session
	2nd	Revision
	3rd	Quiz Test


 Prepared By: - 2/6/26


 Verified By: - 02/06/26


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