

# ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT

## (Autonomous)

Subject: Advanced Coding 1

Year & Branch :II-II B.tech CSD

Faculty: V Jyotsna Devi

Academic Year: 2023-24

Contact Hour	Unit No.	Topic	Teaching Methodology	Remarks
1	1	Basic syntax of cpp, variables, data types, operator, input and output	Black Board/LCD	
2	1	Conditional and looping statements	Black Board/LCD	
3	1	Pointers and different types of pointers.	Black Board/LCD	
4	1	Dynamic memory allocation	Black Board/LCD	
5	1	Array and vectors	Black Board/LCD	
6	1	User Defined Functions and Inbuilt Functions.	Black Board/LCD	
7	2	Definition of OOPS , OOPs vs Procedure oriented, Features of OOPs.	Black Board/LCD	
8	2	Class, object, Instance Variables.	Black Board/LCD	
9	2	Encapsulation, Constructors and destructors.	Black Board/LCD	
10	2	Abstraction, Access modifiers.	Black Board/LCD	
11	2	Inheritance and Different types of Inheritance.	Black Board/LCD	
12	2	Polymorphism, Function overloading and Method Over loading.	Black Board/LCD	
13	2	Exception Handling.	Black Board/LCD	
14	3	Characteristics of algorithm	Black Board/LCD	
15	3	Different Types of asymptotic notations.	Black Board/LCD	
16	3	Time complexity and Space Complexity.	Black Board/LCD	
17	3	Analysis Of algorithm	Black Board/LCD	
18	3	Recurrence Equations	Black Board/LCD	
19	4	Discussions about STL and Types of Containers.	Black Board/LCD	
20	4	Defining container class and it's necessity.	Black Board/LCD	
21	4	List and vector container with different operations.	Black Board/LCD	
22	4	Set and Multiset with operations	Black Board/LCD	
23	4	Map and Multi Map with Operations	Black Board/LCD	
24	4	Stack , Queue, Priority Queue	Black Board/LCD	
25	4	Bit set and Dequeue	Black Board/LCD	
26	5	Recursion and its applications part 1	Black Board/LCD	
27	5	Back tracking part 1	Black Board/LCD	
28	5	Palindrome Partitioning	Black Board/LCD	
29	5	Beautiful Arrangement	Black Board/LCD	
30	5	N- queens Problem	Black Board/LCD	
31	5	Path with Maximum Gold	Black Board/LCD	
32	6	Modular Arithmetic	Black Board/LCD	

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33	6	Exponentiation and Modular Exponentiation.	Black Board/LCD	
34	6	GCD and Extended Euclidean Algorithm	Black Board/LCD	
35	6	Modular Multiplicative Inverse	Black Board/LCD	
36	6	Prime number detection using sieve of eratosthness.	Black Board/LCD	