



Vel Tech
Rangarajan Dr. Sagunthala
R&D Institute of Science and Technology
(Deemed to be University Estd. u/s 3 of UGC Act, 1956)



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WEEKLY LESSON PLAN

Department: CSE

Year / Semester: 2025-26 / Winter

Course Code / Course Name: 10211CS225 / Problem Solving and Testing using Java

UNIT II – Algorithmic Thinking & Competitive Problem Patterns				
Course Outcome: Apply algorithmic patterns to develop optimized solutions.				
Week	Session	Topics to be Covered	Problems to Practice (Hands-On)	Platform
Week 5	Session 1	Maximum Subarray (Brute → Optimized)	Task 1: https://leetcode.com/problems/maximum-subarray/ Task 2: https://www.hackerrank.com/challenges/the-birthday-bar/problem	Leetcode, Hackerrank, geeksforgeeks
	Session 2	Kadane's Algorithm	Task 3: https://www.hackerrank.com/challenges/maxsubarray/ Task 4: https://leetcode.com/problems/maximum-sum-circular-subarray/	
	Session 3	String Handling Basics	Task 5: https://leetcode.com/problems/string-to-integer-atoi/ Task 6: https://www.hackerrank.com/challenges/alternating-characters/	
	Session 4	Advanced String Techniques	Task 7: https://leetcode.com/problems/longest-substring-without-repeating-characters/ Task 8: https://leetcode.com/problems/find-and-replace-pattern/	
	Session 5	Naive Pattern Matching	Task 9: https://leetcode.com/problems/string-matching-in-an-array/ Task 10: https://www.geeksforgeeks.org/problems/naive-pattern-search-1587115620/	