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

## WEEKLY LESSON PLAN

**Department:** Computer Science and Engineering
**Year / Semester:** 2025-26 / Winter
**Course Code / Course Name:** 10211CS225 / Problem Solving and Testing using Java

| **UNIT II – Algorithmic Thinking & Competitive Problem Patterns**<br>**Course Outcome:** Apply algorithmic patterns to develop optimized solutions. | | | | |
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| **Week** | **Session** | **Topics to be Covered** | **Problems to Practice (Hands-On)** | **Platform** |
| Week 4 | Session 1 | Constraint-Driven Solution Design | Task1:https://leetcode.com/problems/determine-if-string-halves-are-alike/<br>Task2:https://www.codechef.com/problems/LAPIN | Leetcode,Hackerrank,codechef,geeksforgeeks |
| | Session 2 | Competitive Problem Patterns | Task3:https://www.hackerrank.com/challenges/compare-the-triplets/problem<br>Task4:https://leetcode.com/problems/contains-duplicate/ | |
| | Session 3 | Writing Efficient Code | Task5:https://www.hackerrank.com/challenges/time-conversion/problem<br>Task6:https://leetcode.com/problems/move-zeroes/ | |
| | Session 4 | Matrix Basics | Task7:https://www.hackerrank.com/challenges/diagonal-difference/<br>Task8:https://leetcode.com/problems/transpose-matrix/ | |
| | Session 5 | Strassen's Matrix Multiplication: https://www.geeksforgeeks.org/problems/multiply-the-matrices-1587115620/ | Task9:https://leetcode.com/problems/matrix-block-sum/<br>Task10:https://www.hackerrank.com/challenges/matrix-rotation-algo/ | |