

WORK PLAN (Odd Semester: August – November 2025)

Paper Name: Algorithms and Advanced Data Structures

Course: B.Sc. (Hons.) Computer Science – V Semester

Teacher Name: Mr. Rajeev Kumar Rai

S. No.	Month	Content
1	August 2025	Randomized Quicksort, Randomized Select, Skip Lists, Ford–Fulkerson Algorithm for the Max-Flow Problem
2	September 2025	Vectors, Lists, Sequences, Hash Functions and Collision-Resolution Schemes String Matching: Brute Force, KMP Algorithm Revision, Lab Practice Assignment 1 Class Test 1
3	October 2025	Tries: Standard Tries, Compressed Tries, Suffix Tries, Search Engines, 2-4 Trees, B-Trees Lab Practice Assignment 2 Class Test 2
4	November 2025	Bellman–Ford Algorithm, Union–Find Data Structures and Their Application in Kruskal’s Algorithm Revision Lab Practice

Note:

Lab exercises, assignments, and class tests will be conducted in alignment with the listed topics throughout the semester.