

1.	Write an algorithm to find the maximum profit nearest to but not exceeding the given knapsack capacity using the Fractional Knapsack algorithm. [10]
2.	Write a program to find the maximum profit nearest to but not exceeding the given knapsack capacity using the Fractional Knapsack algorithm. (Write C Code only) [10]
3.	<p>You are given an array A of $3n$ distinct elements. The task is to partition this array into three subarrays B, C, and D such that:</p> <ol style="list-style-type: none"> 1. Each subarray contains n elements. 2. Each element of B is greater than every element of C, and each element of C is greater than every element of D. <p>The goal is to find an efficient algorithm to do this partition and derive its time complexity. (Write C Code only) [10]</p>