# ACADEMY OF TECHNOLOGY

## Lab Assignment 8

**Paper name: Design and Analysis of Algorithms Lab**

**Code: PCC-CS494** **Semester: $4^{th}$**

**Discipline: CSE** **Time: 2 Hours**

*Date: April 10, 2023*

1. Write a program in C or C++ to implement Fractional Knapsack algorithm. Find an optimal solution to the knapsack instance $n = 7$, $W = 15$.
   $(p_1, p_2, ..., p_7) = (10, 5, 15, 7, 6, 18, 3)$
   and $(w_1, w_2, ..., w_7) = (2, 3, 5, 7, 1, 4, 1)$.

2. Write a program in C or C++ to implement Job Scheduling algorithm. What is the solution generated by the function JS when $n = 7$?
   $(p_1, p_2, ..., p_7) = (3, 5, 20, 18, 1, 6, 30)$
   and $(d_1, d_2, ..., d_7) = (1, 3, 4, 3, 2, 1, 2)$