



Indian Institute of Technology Ropar
Department of Mathematics
MA303: Computing Lab II
2nd semester of academic year 2023-24

Assignment 2

Duration - Till 23:59 (19/04/2024)

Total Marks - 15

Write a MATLAB code that performs the following tasks for an assignment problem:

- Use Hungarian method to determine the optimal solution of the assignment problem and generate the assignment table.
- Calculate the optimal values of dual variables using the method discussed in the lecture class.
(Hint: While performing each step for the Hungarian method, update your u_i, v_j s accordingly. For further reference, refer to the book: Numerical Optimization with Applications by Chandra, Jayadeva and Mehra, Page No. 203-207)
- After obtaining the final assignment table, compute the optimal values of dual variables using the method discussed for transportation problem. (Hint: find basic cells by assigning $n - 1$ more zeros in the table such that it does not create a loop).

*The Test Case is attached with the assignment.

***** End *****