

## **An Efficient Approach to Optimize the Cost and Profit of a Tea Garden by Using Branch and Bound Method**

**Authors :** Abu Hashan Md Mashud, M. Sharif Uddin, Aminur Rahman Khan

**Abstract :** In this paper, we formulate a new problem as a linear programming and Integer Programming problem and maximize profit within the limited budget and limited resources based on the construction of a tea garden problem. It describes a new idea about how to optimize profit and focuses on the practical aspects of modeling and the challenges of providing a solution to a complex real life problem. Finally, a comparative study is carried out among Graphical method, Simplex method and Branch and bound method.

**Keywords :** integer programming, tea garden, graphical method, simplex method, branch and bound method

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