self attested
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THREE DIMENSIONAL BOUNDED TRANSPORTATION PROBLEM

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Abstract: This article presents a methodology to solve a three dimensional bounded transportation problem. Bounded transportation problem is expounded by defining a parallel bounded transportation problem. Equivalence between the two problems is established. The proposed model is applied to public distribution system of North Delhi. A computing software LINGO 17.0 is used to solve the application.

Keywords: Transportation, Bounded Transportation Problem, Rim Conditions, Optimal Solution, LINGO 17.0.

MSC: 90C08, 90B06.

1. INTRODUCTION

A classical transportation problem [6] is a special class of linear programming problem. In this problem, a homogenous commodity is available in known quantity at each of the m origins which needs to be transported to each of n destinations. The cost of transporting a unit of the commodity from any origin to any destination is known. The objective is to determine a transportation schedule which minimizes the total transportation cost . This classical transportation model is based on the assumption that the total quantity required at the destinations is equal to the total quantity available at the origins. But in real life, there are situations when