Glossary

1. **Assignment**
   Assignment is an act of transferring a resource or right; a time or cost is assigned to plant- A in order to complete the task.

2. **Transportation Problem**
   A programming problem that is concerned with the optimal pattern of the distribution of goods from several points of origin to several different destinations, with the specified requirements at each destination.

3. **Optimize**
   Optimize refers to make the best or most effective use of a resource or situation.

4. **Mathematical Model**
   A mathematical model is a description of a system using mathematical concepts and language.

5. **Enumeration**
   Enumeration means to count off or name one by one; list.

6. **Simplex**
   Simplex is composed of or characterized by a single part or structure; it only allows in one direction.

7. **Transportation Cost**
   Costs involved in relaying goods to and from a plant, including payments to transport firms for their services and any cost incurred by a plant in using and maintaining its own fleet of vehicles.

8. **Freight Rate**
   A freight rate is a price at which a certain cargo is delivered from one point to another. The price depends on the form of the cargo, the mode of transport, the weight of the cargo, and the distance to the delivery destination.

9. **Dummy**
   Dummy refers to a model or replica; an object designed to resemble & serve as a substitute for the real one.

10. **Hungarian method**
    The Hungarian method is a combinatorial optimization algorithm which solves the assignment problem in polynomial time and which anticipated later primal-dual methods.

11. **Opportunity Cost**
    Opportunity cost is the cost of any activity measured in terms of the value of the next best alternative forgone (that is not chosen).

12. **Objective Function**
    An objective function can be the result of an attempt to express a business goal in mathematical terms for use in decision analysis, operations research or optimization studies.

13. **Unbalanced Problem**
    It's a transportation problem where the total supply does not equal the total demand.

14. **Arbitrary**
    Arbitrary is based on random choice or personal whim; in mathematics it is the unspecified value.

15. **Square Matrix**
    In a square matrix the number of rows equals the number of columns.