

Q-2
Ans There are few important tools of operation research.

i) Linear programming - which is a mathematical technique that has application to almost all class of decision problems. This technique is applied for choosing as the best alternatives from set of feasible alternatives. In LP objective function as well as constraints can be expressed as linear mathematical function, which can be used to solve the practice problem scheduling.

ii) Transportation problem - they are one of the types of L.P. in which objectives is to transport good and products in various quantities of single homogeneous item / commodity. to different destination as to ~~maximize~~ minimize total transportation cost

In everyday life that various manufacturing organizations or establishments due to various considerations store their end products or items at various places termed as origins or warehouse.

⇒ Assignment problem - is a special type of linear programming problem which deals with the allocation of the various resources to the various activities one to one basis.

It does in such a way that the cost or time involved in the process is minimum and profit or sale is maximum. Though these problems can be solved by simplex method or by transportation method but assignment model gives a simpler approach for these problems.

* Uses of operation Research are:-

- i) Allocation and distribution in projects, the optimal allocation of resources such as men materials, machines, time and money to projects.
- ii) Production and facilities Planning like factory size and location decision, estimation of facilities required, transportation and loading and unloading as well.
- iii) Programmes decisions also are taken through this like, when, what and how to purchase to minimize procurement cost.
- iv) Marketing like advertising budget allocation and product introducing timing.
- v) Research and development also is helped like product introduction planning.

iv) Organization behaviour also is improved by use of this, as to selection of personnel with the right skills and recruitment policies and assignment of jobs, recruitment of employees, and also scheduling of training programmes.