

# Operation research assignment



**ASSIGN  
BUSTER**

## OPERATION RESEARCH &amp; QUANTITATIVE TECHNIQUES Assignment Topics 1.

a) What is Operations Research (OR)? What are the Characteristics of OR?

b) What are the Types of Decision Models used for Decision Making

in Operations Research? c)

Why is Operations Research considered important in Management today?

What are the

various fields of business/industry/Government/social sector where Operation

s Research is used today? 2. a) What is Linear Programming?

What are the Assumptions in Linear Programming? b) Explain step? wise

how the Mathematical formulation of a Linear Programming

problem is done.

What are the Advantages and Limitations of Linear Programming? c) A

company sells two different products A and B. The company makes a profit of Rs. 40 and Rs. 30 per unit on products A and B respectively.

The two are produced in a

common production process and are sold in two different markets.

The production process has a capacity of 30,000 man? hours.

It takes 3 hours to produce one unit of A and one hour to produce one

unit of B. The market has been surveyed, and company officials feel

that the maximum number of units of A that can be sold is 8,

000 and those of B is 12,000 units.

Subject to these limitations, the products can be

sold in any convex combination. Formulate the above problem as an L. P. P.

and solve it by graphical method. 3. a) What is a Transportation Matrix?

Draw a sample illustration of the same. b) Explain step? wise what is the

Least Cost Method for solving Transportation problems. c)

Solve the following transportation problem by North West Corner Method (N

WCM)            Origin   O1   O2   O3   Demand   D1   2   4   3   75   Destination