Production

Law of Variable Proportion

(Law of Diminishing Returns)

Law of Variable Proportion
OR
Law of Diminishing Returns

- This law examines the production function with at least one factor variable, keeping the quantities of other factors fixed. In other words, it refers to the input-output relation when the output is increased by varying the quantity of one input keeping some inputs constant.
- When the quantity of one factor is varied keeping the quantity of the other factors as constant, the proportion between the variable factor and the fixed factor is altered. An effect of such variations in factor proportions on output is known as the law of variable proportions.

Law of Variable Proportion
OR
Law of Diminishing Returns

- The law of variable proportions is the new name for the famous "Law of Diminishing Returns" of classical economics.
- The law of variable proportions or diminishing returns has been stated by various economists in the following manner:
- (F. Benham) states "*As the proportion of one factor in a combination of factors is increased, after a point, first the marginal and then the average product of that factor will diminish*".

Law of Variable Proportion
OR
Law of Diminishing Returns

- Marshall discussed the law of diminishing returns in relation to agriculture. He defines the law as follows: "An *increase in the capital and labour applied in the cultivation of land causes in general a less than proportionate increase in the amount of product raised unless it happens to coincide with improvement in the arts of agriculture.*"
- Prof. K.E. Boulding named it as "the law of Eventually Diminishing Marginal Physical Productivity" and defined it as "*As we increase the quantity of any one input which is combined with a fixed quantity of the others inputs, the marginal physical productivity of the variable input must eventually decline*".

Law of Variable Proportion
OR
Law of Diminishing Returns

- It is obvious from the above definitions of the law of variable proportions (or the law of diminishing returns) that it refers to the behavior of output as the quantity of one factor is increased, keeping the quantity of other factors fixed and further it states that the marginal product and average product will eventually decline.

To be Continued ----------