

Quantitative techniques

[Science](#), [Mathematics](#)



Classification of Quantitative Techniques: There are different types of quantitative techniques. We can classify them into three categories. They are: 1. Mathematical Quantitative Techniques 2. Statistical Quantitative Techniques 3. Programming Quantitative Techniques

Mathematical Quantitative Techniques: A technique in which quantitative data are used along with the principles of mathematics is known as mathematical quantitative techniques. Mathematical quantitative techniques involve: 1. Permutations and Combinations: Permutation means arrangement of objects in a definite order.

The number of arrangements depends upon the total number of objects and the number of objects taken at a time for arrangement. The number of permutations or arrangements is calculated by using the following formula: $nPr = \frac{n!}{(n-r)!}$

Combination means selection or grouping objects without considering their order. The number of combinations is calculated by using the following formula: $nCr = \frac{n!}{r!(n-r)!}$

2. Set Theory: Set theory is a modern mathematical device which solves various types of critical problems.

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3. Matrix Algebra: