Non-Parametric Test

What is a Non-Parametric Test?

Non-parametric tests are the mathematical methods used in statistical hypothesis testing, which do not make assumptions about the frequency distribution of variables that are to be evaluated. The non-parametric experiment is used when there are skewed data, and it comprises techniques that do not depend on data pertaining to any particular distribution.

The word non-parametric does not mean that these models do not have any parameters. The fact is, the characteristics and number of parameters are pretty flexible and not predefined. Therefore, these models are called distribution-free models.

Applications of Non-Parametric Test

- The conditions in which non-parametric tests can be used are:
- When parametric tests do not give satisfactory results
- When hypothesis is tested without distribution
- For quick data analysis.
- When unscaled data is available.

Non-Parametric T-Test

Whenever a few assumptions in the given population are uncertain, we use non-parametric tests, which are also considered parametric counterparts. When data are not distributed normally or when they are on an ordinal level of measurement, we have to use non-parametric tests for analysis. The basic rule is to use a parametric t-test for normally distributed data and a non-parametric test for skewed data.

Non-Parametric Paired T-Test

The paired sample t-test is used to match two means scores, and these scores come from the same group. Pair samples t-test is used when variables are independent and have two levels, and those levels are repeated measures.