Physical measurements in areas such as meteorological experiments, rainfall studies, measurement of manufactured items and parts are described very well by the normal distribution. Errors of measurement is another significant area of its application. Its another major application is as the limiting form of many distributions such as binomial distribution, hypergeometric distribution and poisson distribution etc. Further, the central limit theorem makes it an important tool in the statistical decision making because it is a limiting form of the sample averages.

**Total area**

**Mean and variance**

**Odd order moments about mean**

**Even order moments about mean**

**Mean deviation**

**Moment generating function**

**Median**

**The interval contains 68.27% of the observations**

**Mode**

**Points of inflexion**

**Quartiles and Q.D**

**Cumulant generating function**