**Some Important Notations in Sampling**

|  |  |  |
| --- | --- | --- |
| **Notation Name** | **Population** | **Sample** |
| Dataset |  |  |
| No. of Elements |  |  |
| Mean |  |  |
| Variance |  |  |
| Standard Deviation |  |  |
| Proportion |  |  |
| Difference between Means |  |  |
| Difference between Proportions |  |  |

**Formulas for Population**

**In case of two populations**

**Formulas for Different Sampling Distributions**

1. **Mean of the sampling distribution of sample mean ()**
2. **Variance of the sampling distribution of sample mean ()**
3. **Standard Deviation / Standard Error of the sampling distribution of sample mean ()**
4. **Mean of the sampling distribution of difference between two sample means i.e.,**
5. **Variance of the sampling distribution of difference between two sample means i.e.,**
6. **Standard Deviation / Standard Error of the sampling distribution of difference between two sample means i.e.,**
7. **Mean of the sampling distribution of sample proportion .**
8. **Variance of the sampling distribution of sample proportion**
9. **Standard Deviation / Standard Error of the sampling distribution of sample proportion**
10. **Mean of the sampling distribution of difference between proportions i.e.,**
11. **Variance of the sampling distribution of difference between two sample proportions i.e.,**
12. **Standard Deviation / Standard Error of the sampling distribution of difference between two sample proportions i.e.,**
13. **Mean of the sampling distribution of variance**