

Unit-I

→ Each distribution definition along with

- Formula
- Properties
- Mean, variance

→ Finite population correction factor = $\sqrt{\frac{N-n}{N-1}}$

→ Find the value of finite population correction factor for $n=10$, $N=1000$

$$= \sqrt{\frac{1000-10}{1000-1}} = \sqrt{\frac{990}{999}} = \sqrt{\frac{110}{111}} = 0.9954$$

→ P.M.F, P.D.F definition

→ Continuous & discrete random variable definitions

- Variance & mean formula

→ Random variable, Probability definitions

→ Sample space, trial, Experiment definitions

Unit 2

- Define Null Hypothesis (Also, alternative Hypothesis & Hypothesis)
- If sample size is small, write confidence limits for single mean
- Define random sampling
- Test statistic for single variance
- Critical region definition
- If sample size is large, write confidence limits for single mean
- How many different samples of size 2 can be chosen from a finite population of size 25 (Ans:- ${}^{25}C_2 = 300$)
- Population & sample definitions (Along with parameters)
- Type 1 & Type 2 errors and L.O.S.
- Small Sample & large sample
- Define sampling distribution
- Each ~~distri~~ test formula, C.L. and inferences

Unit-3

→ Each test formula along with

- Inference
- Confidence limits

→ If they asked us to find out the critical region

we should write confidence limits

→ Maximum error estimate of proportion $P \Rightarrow E = Z_{\alpha/2} \sqrt{\frac{Pq}{n}}$

Unit-4

→ Each test formula along with

- Inference

→ Define run

→ Define trend

→ Define time series

→ Advantages of nonparametric tests

→ Regression line definition. write regression line of y on x .

→ Define Rank correlation

→ Uses of chi-square test