

## (Assignment no 8)

Ans 1 A sampling distribution is a distribution of all of possible values of a statistic for a given size sample selected from a population

Ans 2 A measure of the variability in the mean from sample to sample is given by standard error of the mean.

$$\sigma_{\bar{x}} = \frac{\sigma}{\sqrt{n}}$$

$$n \rightarrow \infty$$

$$\sigma_{\bar{x}} \rightarrow \sigma$$

Population  
SD

Ans 3 For large samples: Z distribution  
For small samples: t distribution

- Ans 4
- ① Data from non random samples are not appropriate for analysis by inferential statistics methods.
  - ② Sampling error occurs when sample is not representative of the population.