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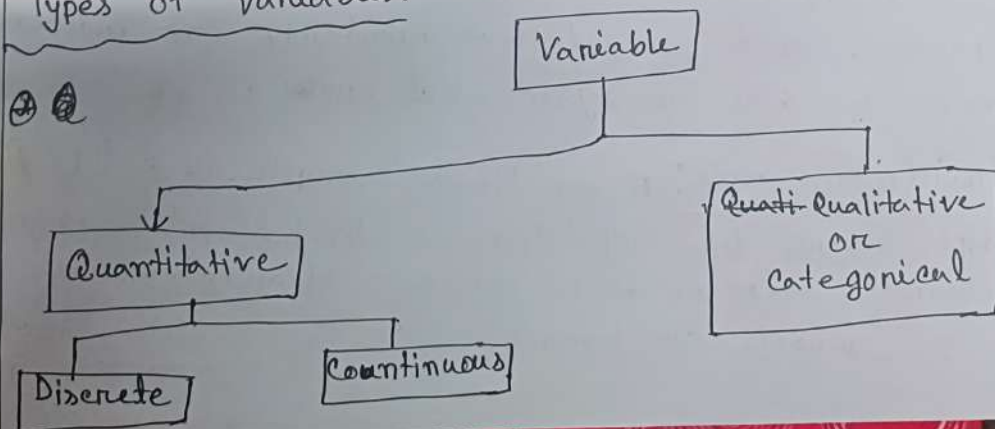Course: Statistics
Code: STA-235

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Answer to the question NO: 2

⇒ Statistical knowledg help us the proper methods to collect the data, employ the correct analyses, and effectively present the results. Statistics is a crucial process behind how we make discoveries in science, make decisions based on data, and make predictions.

Answer to the question NO: 1

Variable: A variable is a characteristic under study that assumes different values for different elements. In contrast to a variable, the value of a constant is fixed.

Types of variables:

⊕ **Quantitative Variables:** Some variables can be measured numerically, whereas others cannot. The first in an example of a quantitative variable and the second that of a quantitative variable.

⊕ ~~Quabitata~~

⊕ **Qualitative or categorical variables:** Variables that cannot be measured numerically but can be divided into different categories are called ~~quat~~ qualitative or catgorical variables.

Answer to the question no:03

Sample: A sample is a subset of data or a portion of a population that is selected for analysis experimentation, or testing. In other words, a sample is a representative group of individuals or items that is taken from a larger population to make inferences about the ~~popul~~ population.

Types of Samples:

Random Sample: A random sample is a subset of the population that is selected randomly and independently without any bias or systematic error.

Stratified Sample: A stratified sample is a type of sample where the population is divided into subgroups, or strata, based on ~~each~~ certain characteristics, such as age, gender, or location.

Systematic Sample: A systematic sample is a type of random sample where every kth item is selected from the population, where k is a fixed number.

Convenience Sample: A convenience sample is a subset of the population that is easily accessible and convenient to select, but may not be representative of the entire population.

Quota Sample: A quota sample is a type of stratified sample where the sample is designed to match the population in terms of certain characteristics, such as age, gender, or location.

Snow ball Sample: A snowball sample is a type of non-probabilistic, sample where the selection of participants is based on ~~specific~~ referrals from ~~exis~~ existing participants.

purposive Sample: A purposive sample is a type of non-probabilistic Sample where the selection of participants is based on the specific characteristic or criteria.

<u>Answer to the question No: 4</u>

The mean is the average of a set of number calculated by adding them up and dividing by the total count.