

INTRODUCTION:

- Data.
- Statistics.
- Branches of statistics.
- Types of Data.
- Population.
- Sample.
- Parameter.
- Statistic.
- Constant.
- Variable.
- Types of variable.
- Notations.
- Importance of statistics in Business Studies.
- Data Analysis.

⇒ Data:

The collection of different observations.

⇒ Types of Data:

- Primary

- Secondary

⇒ Primary Data:

The first collection of data by any person without any arrangement.

i.e.,

- Personal Investigation
- Through Questionnaires
- " Local sources
- " Investigators.

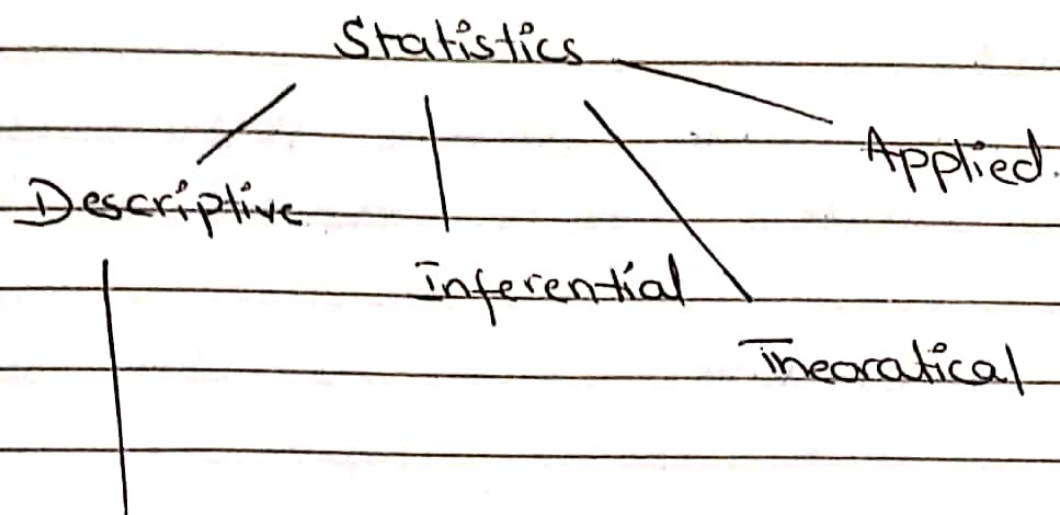
⇒ Secondary Data:

When we arrange the primary data by any statistical rule then it becomes secondary data. i.e.,

- By Govt. Organization.
- " Semi "
- " Publication & Research organization.
- News paper & internet

⇒ Statistics:

It is a branch of science in which we study diff methods & principles of collecting, presenting, analysing & interpreting the numerical data related to any field of life.



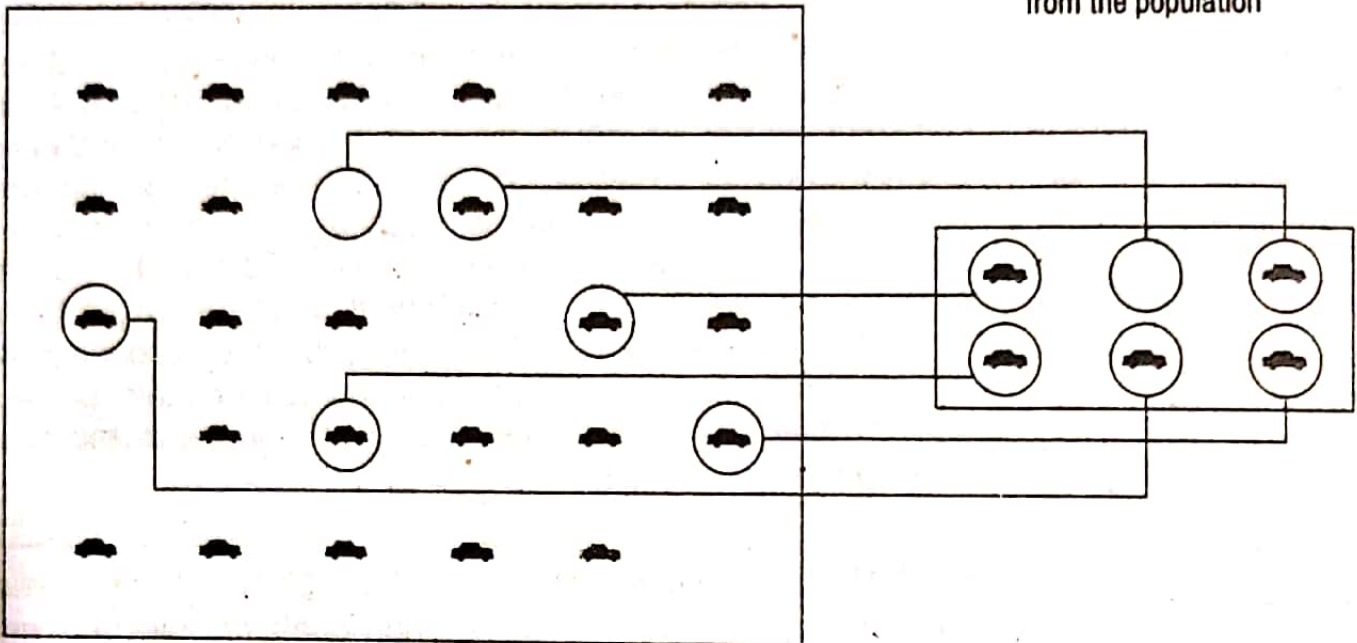
It deals with concepts & methods concerned with summarization & organization & description of the imp. aspects of numerical data.

Data Analysis.

e.g., Mrs. Rashid wants to determine the average weekly amount she spent on groceries in the past 6 months. OR Average sale in this month.

Population
All Items

Sample
Items selected
from the population



⇒ Constant:

The value which doesn't change & remains same for every person is called constant. e.g.,

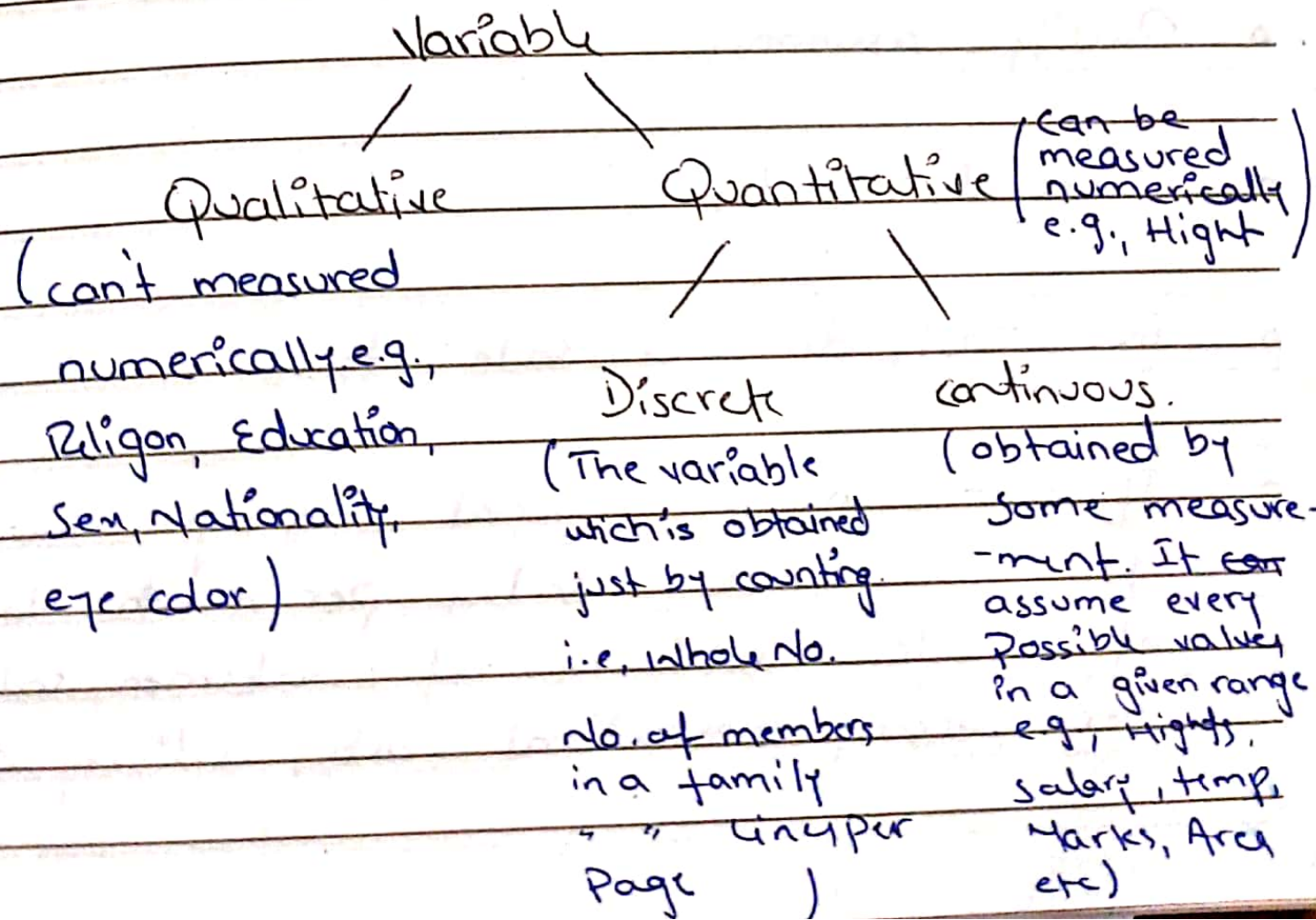
No. of days in a week.

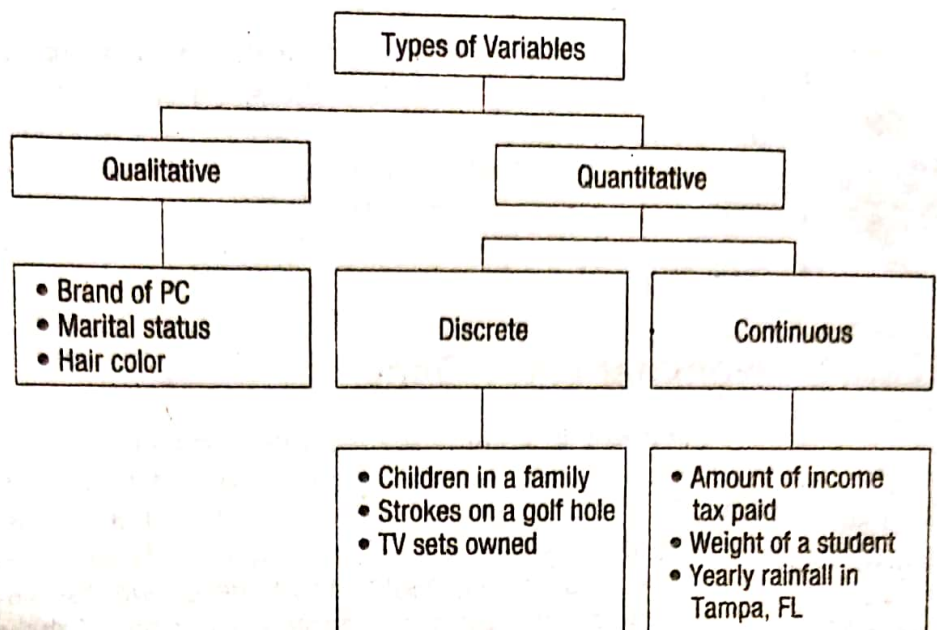
" " players in cricket team, π etc.

⇒ Variable:

The value which changes & doesn't remain same for every person is called variable. e.g.,

Height, weight, temp, time, marks etc.





⇒ Notations:

Σ : Summation i.e., $x_1 + x_2 + x_3 + \dots + x_n = \Sigma x_i$

Π : Product i.e., $x_1 \cdot x_2 \cdot x_3 \dots x_n = \Pi x_i$

$n!$: Factorial. i.e., $n(n-1)(n-2) \dots 3 \cdot 2 \cdot 1 = n!$

⇒ IMPORTANCE OF STATISTICS IN BUSINESS STUDIES:

- o are a company's sales figures likely to increase in the next quarter?
- o It helps in Business planning.
- o Quality assurance
- o Financial analysis
- o Avg cost, demand, sale etc.
- o If you are a regional manager then you will track sales per month, no of vehicles sold, no of salesmen, sales per person, operational costs, delivery time

o you can see trends, understand relationships b/w numbers & take further business decisions, etc.

→ Data Analysis:

It is defined as a process of cleaning, transforming, modeling data to discover useful info. for business decision-making.

The purpose of Data analysis is to extract useful info. & from data & taking the decision based upon the data analysis.