Faculty Science

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Department: Botany

B Sc III -Paper I (Plant Resource Utilization, Palynology, Plant Pathology and Biostatistics)

Unit- IV   Topic- Classification of Data

Data are the units of information that are collected through observations. Classification of data is the systematic grouping of units according to their similar features.
Classification of data on the basis of nature of variable

Qualitative data- These are some attribute or quality. For example good or bad rude or kind. These are not measured directly. It may be-

1) Nominal data- When the observations are taken in the form of some quality. For example married or unmarried and poor or rich.

2) Ordinal data- When some order is given with nominal data. for example- If data are collected on the basis of age. We allot ranks 1,2,3…. etc to child, adult, old people.

Quantitative data- When the data are in numerical values. These are measured directly. It may be-

1) Interval data- When data are represented in definite interval. For example Cinema Hall shows are first show 9 to12, second show 12 to 3, third show 3 to 6. Interval and order are important

2) Ratio-When there is proportionate relationship between two observations. For example 1 pencil is in 2 rupees. 2 pencils are in 4 rupees.

3) Discrete data- When observations differ from each other by exact magnitude. All numbers are taking whole not decimal. For example 1, 2, 3, 4. number of child and number of student

4) Continuous data- It can take all values between two numbers. For example age, height and weight. 1 kilogram, 1.5 kilogram, 1.6 kilogram, 2 kilogram.

5) Frequency data- when the observations are written with their frequencies. For example 10 students got 15 marks, 5 students got 20 marks and 10 student got 25 marks.

Marks (Out of 50)	No. of students
15	10
20	5
25	10

Chronological data- when the data are arranged by their time of occurrence such as years, months, weeks, days etc. For example -Population of India from 1961 to 1981.

Year	Population (in crores)
1961	43.9
1971	54.8
1981	68.4

Geographical data- when the data characterized by a certain location on the surface of the earth such as cities, states, countries etc.
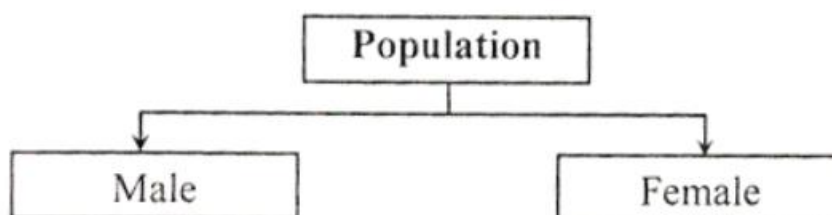
On the basis of source of collection

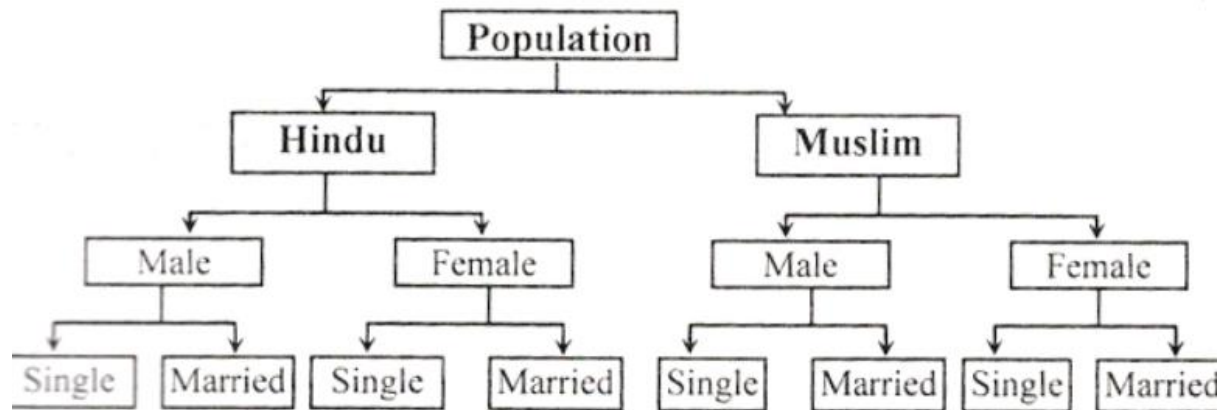**Primary data-** Primary data refer to the data originated by the researchers for first time.

Secondary data- Secondary data are already existing data collected by investigators, agencies and organisations earlier.

On the basis of content

Simple data- When data are classified on the basis of single characteristics. For example- gender

Manifold data- When data are classified on the basis of more than one characteristic. For example-gender, religion, status etc.

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                          │  Population  │
                          └──────────────┘
              ┌──────────────────┴──────────────────┐
              ▼                                      ▼
        ┌───────────┐                          ┌───────────┐
        │   Hindu   │                          │  Muslim   │
        └───────────┘                          └───────────┘
        ┌──────┴──────┐                        ┌──────┴──────┐
        ▼             ▼                        ▼             ▼
   ┌────────┐    ┌────────┐              ┌────────┐    ┌────────┐
   │  Male  │    │ Female │              │  Male  │    │ Female │
   └────────┘    └────────┘              └────────┘    └────────┘
   ┌───┴───┐     ┌───┴───┐              ┌───┴───┐     ┌───┴───┐
   ▼       ▼     ▼       ▼              ▼       ▼     ▼       ▼
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Objectives of classification -

1.To bring out the unity of attributes out of the diversified things.
2.To make things easily understandable.
3.To make the study and comparison easier.
4.To bring out the cause and effect relationship.
5.To put up the collected data to statistical treatment.