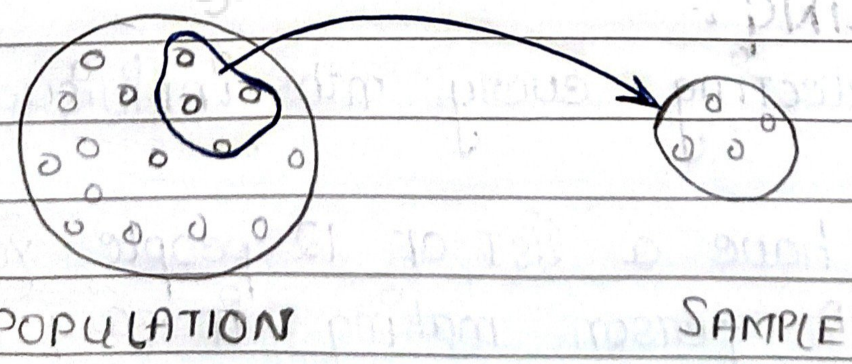
POPULATION AND SAMPLE

↳ Population refers to the entire group we want to make conclusion about.
Eg:- Residents of a Country, Customer of a Company.

↳ Sample is a smaller group selected from that population, meant to represent it.

- Selection of good sample is crucial — it should be large enough and reliable random to provide reliable insights about the population.
- Sample is a subset of population.



WHY SAMPLE?

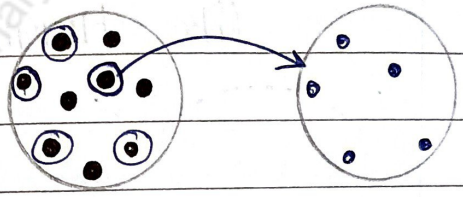
↳ To Reduce the cost of data collection.

↳ When full census data of the entire population cannot be taken.

SAMPLING TECHNIQUES :-

There are 4 main sampling techniques :-

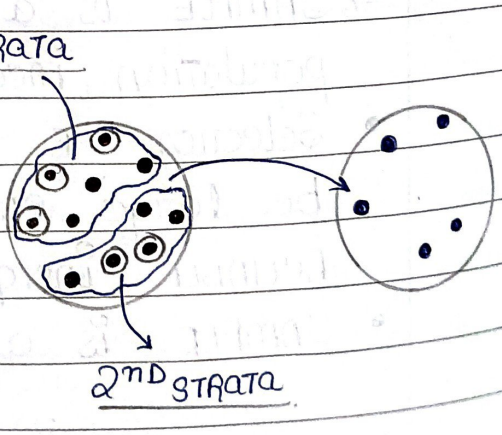
1. RANDOM SAMPLING :



- This is like a lucky draw where every individual has
- an equal chance of being chosen.
  It's simple and unbiased.

2. STRATIFIED SAMPLING

- The population is divided into groups or 'STRATA' based on shared characteristics like age, gender or income.
- Then we randomly sample from each group ensuring representation across all segments.



3. SYSTEMATIC SAMPLING :-

- This involves selecting every nth individual from a list.
- Example, if we have a list of 12 people you might choose every 3rd person making it easy and straightforward to implement.

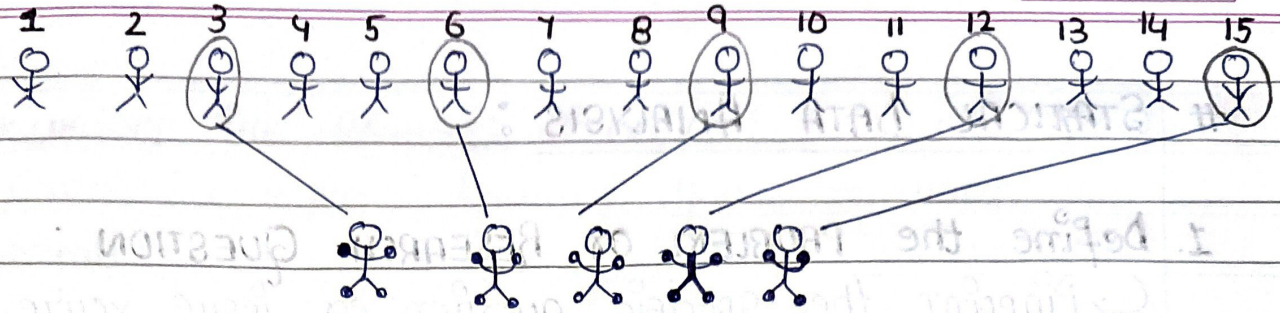
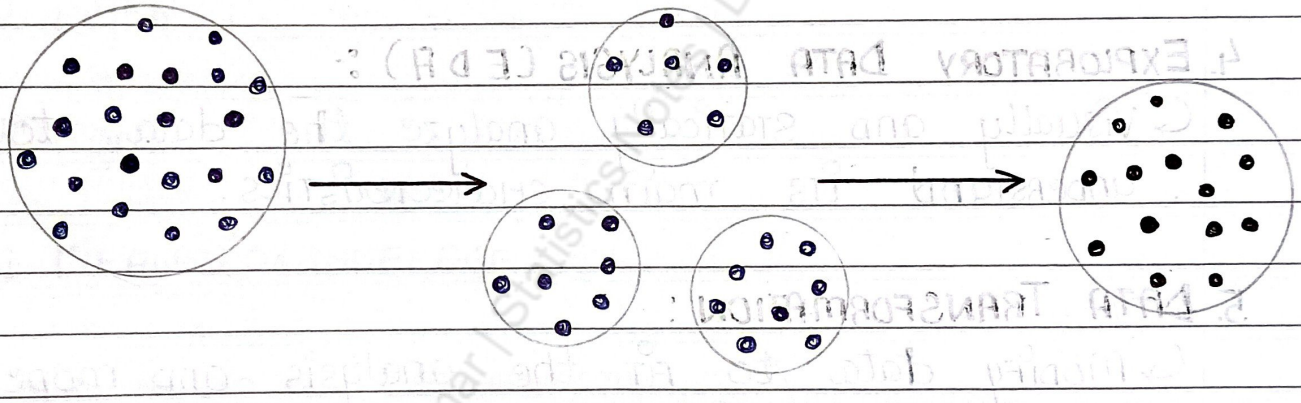


Fig Shown: SYSTEMATIC SAMPLING when nth → 3rd

4. CLUSTERED SAMPLING :-

POPULATION —divided into→ CLUSTERS —→ Randomly select complete clusters



FACTORS INFLUENCING THE CHOISE OF SAMPLING TECHNIQUE :-

1. NATURE OF POPULATION
2. RESEARCH OBJECTIVE
3. AUAILABLE RESOURCE