PROBABILITY SAMPLING

From where	Simple Random Sampling	Systematic Random Sampling	Stratified Random Sampling	Cluster Sampling	Multistage Sampling	Multiphase sampling
Calculation	❖ By using Random Digit ➢ Identify the population size, and ➢ give No. for each one of population. ➢ Identify the sample size ➢ Chose first No. blindly from the random digit. ➢ Decide going vertically or horizontally . ➢ Chose second, third, fourth……. No. ➢ Collect the sample size . Ignore : - Repeated No. - No. larger than population size .	❖ Identify population size . ❖ Identify sample size . ❖ Identify predefine system we need 10th 8th . every kth element o In this case, k=(population size/sample size). ❖ Chose first No. By using random digit . ❑ It is important that the starting point is not automatically the first in the list, but is instead randomly chosen from ❖ within the first to the kth element in the list. ❖ Use predefine system to collect 2nd 3rd …. K No. ❖ then selecting elements at regular intervals through that ordered list. ❖ Collect the sample size	By using well define stratum ❖ Identify the variable that we need . ❖ Identify the population size ❖ Identify the sample size . ❖ Dived population into well define non overlapping group or subgroup (stratum) . ❖ Chose from each stratum No. of observation randomly (or sample size) that is proportional to its original size . ❖ Collect the total sample size, this will include the right proportion .	•Cluster sampling is an example of 'two-stage sampling' . • First stage a sample of areas is chosen; • Second stage a sample of respondents within those areas is selected. • A Population is divided into clusters of homogeneous units, usually based on geographical contiguity. •Sampling units are groups rather than individuals. •A sample of such clusters is then selected. •All units from the selected clusters are studied.	•The Complex form of cluster sampling in which two or more levels of units are embedded one in the other. –First stage, a random number of districts chosen in all states. –Followed by a random number of villages. –Then third stage units will be houses	
Characteristics Advantages	–Estimates are easy to calculate. –Simple	–Sample easy to select –Suitable sampling frame can be identified easily –Sample evenly spread over entire reference population				
Disadvantages	–If sampling frame large, this method is impracticable. –Need complete sampling frame. –Minority subgroups of interest in population may not be present in sample in sufficient numbers for study.	–Sample may be biased if hidden periodicity in population coincides with that of selection. –Difficult to assess precision of estimate from one survey.				

NON-PROBABILITY SAMPLING

From where	QUOTA SAMPLING	CONVENIENCE SAMPLING	SNOWBALL SAMPLING	JUDGMENTAL OR PURPOSIVE SAMPLING
Calculation	**•The population is first segmented into mutually exclusive sub-groups, just as in stratified sampling.** **•Then judgment used to select subjects or units from each segment based on a specified proportion.** **• In quota sampling the selection of the sample is non-random.**	**•Also known as grab or opportunity sampling or accidental or haphazard sampling.**	**Existing study subjects are used to recruit more subjects into the sample** **EX: covid-19**	**The researcher chooses the sample based on who they think would be appropriate for the study.** **This is used primarily when there is a limited number of people that have expertise in the area being researched**
Characteristics Advantages		**•Involves the sample being drawn from that part of the population which is close to hand. That is, readily available and convenient.** **•Use results that are easy to get**		
Disadvantages	**The problem is that these samples may be biased because not everyone gets a chance of selection. This random element is its greatest weakness and quota versus probability has been a matter of controversy for many years**	**•The researcher using such a sample cannot scientifically make generalizations about the total population from this sample because it would not be representative enough.**		