SECTION - A

Answer the following question in about 1000 words each. Marks 15x3=45

1. Define sampling. Discuss the different methods of sampling.

**Ans:** Sampling is a process used in statistical analysis in which a predetermined number of observations are taken from a larger population. The methodology used to sample from a larger population depends on the type of analysis being performed but may include simple random sampling or systematic sampling.

Various methods of sampling are:

- **Simple random sampling:** By using the random number generator technique, the researcher draws a sample from the population called simple random sampling. Simple random samplings are of two types. One is when samples are drawn with replacements, and the second is when samples are drawn without replacements.

- **Equal probability systematic sampling:** In this type of sampling method, a researcher starts from a random point and selects every nth subject in the sampling frame. In this method, there is a danger of order bias.

- **Stratified simple random sampling:** In stratified simple random sampling, a proportion from strata of the population is selected using simple random sampling. For example, a fixed proportion is taken from every class from a school.

- **Multistage stratified random sampling:** In multistage stratified random sampling, a proportion of strata is selected from a homogeneous group using simple random sampling. For example, from the nth class and nth stream, a sample is drawn called the multistage stratified random sampling.

- **Cluster sampling:** Cluster sampling occurs when a random sample is drawn from certain aggregational geographical groups.

- **Multistage cluster sampling:** Multistage cluster sampling occurs when a researcher draws a random sample from the smaller unit of an aggregational group.

- **Types of non-random sampling:** Non-random sampling is widely used in qualitative research. Random sampling is too costly in qualitative research. The following are non-random sampling methods:

  - **Availability sampling:** Availability sampling occurs when the researcher selects the sample based on the availability of a sample. This method is also called haphazard sampling. E-mail surveys are an example of availability sampling.

  - **Quota sampling:** This method is similar to the availability sampling method, but with the constraint that the sample is drawn proportionally by strata.

  - **Expert sampling:** This method is also known as judgment sampling. In this method, a researcher collects the samples by taking interviews from a panel of individuals known to be experts in a field.

  - **Analyzing non-response samples:** The following methods are used to handle the non-response sample:

    - **Weighting:** Weighting is a statistical technique that is used to handle the non-response data. Weighting can be used as a proxy for data. In SPSS commands, “weight by” is used to assign weight. In SAS, the “weight” parameter is used to assign the weight.

2. Discuss the meaning and relevance of qualitative research. Explain the ethical guidelines in qualitative research.

**Ans:** Qualitative research has come to be defined as research whose findings are not arrived at by statistical or other quantitative procedures. Qualitative research is often said to be naturalistic. That is, its goal is to understand behaviour in a natural setting. Two other goals attributed to qualitative research are understanding a phenomenon from the perspective of the research participant and understanding the meanings people give to their experience. It attempts to do this by using so-called naturalistic methods—interviewing, observation, ethnography, participant observation and focus groups. Each of these methods seeks to understand the perspective of the research participant within the context of their everyday life. This means that the researcher is concerned with asking broad questions that allow the respondent to answer in their own words. These methods allow the researcher to try to qualify their understanding during the research process through further probing questions. In addition, a method such as observation allows the researcher to observe people within natural settings—particularly those in public places. This has resulted in greater understanding of people’s behaviours in, for example, lifts, public transport, and queues.

Qualitative research is sometimes said to have as its goal the understanding of the sample studied, rather than generalizing from the sample to the population. However, the results of qualitative research can be applied to other settings—as long as the reader of the research understands the limitations. For example, the research findings of a qualitative case study of primary school children in a particular school and their mobile phone usage will tell us more about the mobile phone usage of children in the general population, than of adults. However, the type of school (public or private), where it was located, and the socio-economic background of the students need to be taken into consideration when applying findings to other settings (either schools or the general population of children).

In addition to the methods for collecting data mentioned above, qualitative research includes a wide range of ways to analyse the data. One of the most popular of these is known as grounded theory. Others include conversation analysis, discourse analysis, thematic analysis, and even historical analysis.

Qualitative psychological research emphasizes fieldwork, and this emphasis has been offered as a distinguishing mark. Qualitative psychological research is also described as holistic. That is, qualitative researchers believe in studying phenomena in its context rather than concentrating on narrow aspects of the phenomena. This means that they either observe or participate in the phenomena they are studying, e.g. attending a football game to understand the behaviours of fan, and/or they ask open-ended questions about the behaviour of fans at football games. These questions are holistic because they are designed to understand the context of behaviour—they will usually follow a pattern that replicates the experience, e.g. “What did you do when you arrived? Who did you come with? What did you do then?” However, similar methods are used by quantitative researchers.