

Pg # ①

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Paper

Research Methodology

Section "A"

MCO's

①

- A Analytical, experimental
- B ✓ observational, case-control
- C Analytical, observational
- D Cohort, Descriptive.

②

- A Analytic, Experimental.
- B Analytic, observational, cohort.
- C Analytic, observational, case/control
- D ✓ Descriptive, observational.

③

- A Case-control.
- B Cohort.
- C ✓ Cross-sectional.
- D Experimental.

④

- A Case - Control.
- B Cohort.
- C Cross - sectional
- D ✓ Experimental.

⑤

- A ✓ No, because the interviewers can't affect whether the subjects are considered cases or controls; that's already decided.
- B Yes, but it's hard to predict the direction of the bias.
- C Yes, and would predispose to ~~an acceptance~~ a rejection of the null hypothesis.
- D Yes, it would predispose to an acceptance of the null hypothesis.

⑥

- A a Sample.
- B a Gallup poll.
- C ✓ a Census.
- D a Nielsen audit.

⑦

- A Proceed with the field work.
- B Find Suitable Source for the population members.
- C Define the people of interest.
- D ✓ Examine the objective of the study.

⑧

- A Purposive.
- B Judgement.
- C Convenience.
- D ✓ Simple random.

⑨

- A We can calculate the accuracy of the results.
- B ✓ The results are always representative.
- C Interviewers can choose respondents freely.
- D Informants can refuse to participate.

⑩

- A The expense.
- B ✓ The results are never representative.
- C Human Judgement error.
- D Informants can refuse to participate.

⑪

- A ✓ By using industry standards.
- B By calculation.
- C By building blocks.
- D By budget available.

(12)

- A Random digit dialing.
- B ✓ Purposive.
- C Stratified random.
- D Simple random.

(13)

- A ✓ 6
- B 12
- C 11
- D 4

(14)

- A mean
- B median
- C ✓ mode
- D None of above

(15)

- A 13
- B 11
- C 14
- D ✓ 14 and 16

Q1:-

Answer:- A Cohort is a group of people who have something in common and who remain part of a group over a period of time.

Types of Cohort Studies:-

- 1) Prospective Cohort Studies.
- 2) Retrospective Cohort Studies.

① Prospective Cohort Studies:-

The investigators assemble the study group in the present time, collect baseline data on them and then continue to collect data for a period that can last many hours to years.

② Retrospective Cohort Studies:-

The investigator goes back into history to define a risk group and follows the group members up to the present to see what outcome have occurred.

## ① Cohort Selected for Study:-

Exposed  
 ↓  
 \* With outcome  
 \* Without outcome

Unexposed  
 ↓  
 \* With outcome.  
 \* Without outcome.

Onset of Study ~~across~~ Direction of Study

## ② Records Selected for Study:-

Exposed  
 ↓  
 \* With outcome  
 \* Without outcome

Un-exposed  
 ↓  
 \* With outcome  
 \* Without outcome

Direction of Study | Onset of Study

Q2:-

Answer:-

Sample Definition:-

A Sample is a Sub of the population, with all its inherent qualities. Inferences about the population can be made from the measurement taken from a sample if the sample is truly representative of the population. Since a sample is expected to represent the whole population, the sampling procedure has to follow these fundamentals.

⇒ Non - probability Sampling:-  
Non probability sampling designs are often more practical than probability designs for some clinical research.

Types of Non Probability Sampling:-

- 1) Consecutive.
- 2) Convenience.
- 3) Purposive.

### ① Consecutive Sampling:-

It involves taking every patient who meets the selection criteria over a specified time interval or number of patients.

It is the best of the non-probability techniques.

### ② Convenience Sampling:-

- \* It is the process of taking those members of the accessible population who are easily available.
- \* Sample is selected in a haphazard fashion.
- \* It is widely used because of its obvious advantages in cost & logistics.

### ③ Purposive Sampling:-

- \* Sampling is done on the basis of some pre determined idea.
- \* Specific targets are interviewed because they possess the desired information.



Q3:- Define Data & explain its types?

Answer:-

Data:- Data are values of ~~information~~ <sup>the</sup> observation recorded for variables examples:- Age, weight, Sex.

Types of Data:-

- 1) Qualitative Data.
- 2) Quantitative Data.
- 3) Categorical Data.

① Qualitative Data:-

Qualitative data is a type of data if express the number like national identification number, phone number etc.

Examples of qualitative data include Sex (male or female) name, State of origin, Citizenship etc.

## ② Quantitative Data:-

It is defined as the value of data in the form of counts or numbers where each data - set has a unique numerical value associated with it. This data is any quantifiable information that can be used for mathematical calculations and statistical analysis, such that real life decisions can be made based on these mathematical derivations. Quantitative data is used to answer questions such as "How many?", "How often?", "How much?". This data is verified & can also be conveniently evaluated using mathematical techniques.

### Example:-

There are quantities corresponding to various parameters, for instance - "How much did that laptop cost?" is a question which will collect quantitative data - There are values associated with most measuring parameters such as pounds or kilograms for weight.

### ③ Categorical data:-

It is the statistical data consisting of categorical variables or of data that has been converted into that form, for examples as grouped data. More specifically, categorical data may derive from observations made of qualitative data that are summarized as counts or cross tabulations or from observations of quantitative data grouped within given intervals. Often, purely categorical data are summarized in the form of a contingency table. However, particularly when considering data analysis, it is common to use the term "categorical data" to apply to data sets that, while containing some categorical variables, may also contain non-categorical variables.